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Humanitarian Crisis in Sudan: Multifaceted Impacts of Armed Conflict on Health, Education, and Displacement

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Abstract

Since the outbreak of the conflict on April 15, 2023, between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF), Sudan has descended into one of the world's most severe humanitarian and displacement crises. Nearly 13 million people have been forcibly displaced—8.9 million internally and 3.7 million to neighboring countries—placing immense strain on Sudan's collapsing infrastructure and the limited capacities of host nations. This study applies the human security framework to examine the impact of the conflict on healthcare, education, and displacement. Drawing on qualitative and quantitative data from the World Health Organization (WHO), the United Nations High Commissioner for Refugees (UNHCR), and the International Organization for Migration (IOM), it explores how violence and institutional collapse threaten individual survival, well-being, and dignity. The conflict has devastated Sudan's healthcare system, rendering two-thirds of hospitals non-functional due to attacks, looting, and critical shortages of personnel and medical supplies. Disease outbreaks, malnutrition, and the lack of clean water have further heightened health risks, particularly in displacement camps. Simultaneously, the education sector has nearly collapsed, with 90% of schools and most universities shut down—leaving millions of children without access to education and jeopardizing the country's long-term recovery. The humanitarian response remains severely underfunded, and international engagement is limited. This study underscores the urgent need for coordinated humanitarian aid, sustained diplomatic efforts, and long-term strategies to rebuild essential sectors. Without immediate and strategic intervention, Sudan risks further societal collapse, escalating regional instability, and the irreversible breakdown of critical national institutions.

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Introduction

For decades, Sudan has been plagued by political instability and armed conflicts, leading to recurring humanitarian disasters, including mass displacement, economic collapse, and systemic violence (Musa et al., [2024](#)). The most recent escalation occurred on April 15, 2023, as a brutal power struggle between the Sudanese Armed Forces (SAF), led by Lt. Gen. Abdel Fattah al-Burhan and the Rapid Support Forces (RSF), commanded by Lt. Gen. Mohamed Hamdan Dagalo, plunged the country into chaos.

While conflicts in Gaza and Ukraine dominate global headlines, Sudan's devastating war remains largely overlooked, despite its catastrophic humanitarian and geopolitical consequences. The ongoing proxy war, akin to those in Ethiopia's Tigray, Oromia, and Amhara regions, as well as the Democratic Republic of the Congo (DRC), has resulted in widespread devastation, displacing millions and destabilizing the region (Alamin et al., [2024](#)).

Sudan's war has fractured the state, heightened security risks, and worsened an already fragile economic and social landscape. Yet, it is often dismissed by the international community as geopolitically insignificant, receiving minimal intervention despite its far-reaching implications.

The atrocities and complex dynamics fueling Sudan's conflict have been exacerbated by the involvement of regional and international actors, whose actions have intensified the crisis and undermined African-led peace initiatives, including mediation efforts by Kenya and Egypt. External interference has further complicated the situation, particularly the inability of the United States to restrain its Middle Eastern allies from contributing to the escalation. The conflict has triggered one of the world's most severe humanitarian crises, disrupting food security, trade, and access to essential services. With millions displaced both internally and across borders, Sudan's crisis demands urgent and coordinated international attention and intervention (Imam, [2023](#)).

Sudan is grappling with an overwhelming economic, social, and humanitarian crisis. The ongoing conflict has devastated key sectors such as agriculture and business, causing losses estimated at \$15 billion. Families that once relied on farming and trade for their livelihoods now face food

shortages, unemployment, and displacement. Beyond the immediate destruction, the long-term economic outlook is grim. The country's GDP is in freewill, and recovery will take years, if not decades. Infrastructure, markets, and industries that took generations to build have been crippled by war. Sudan's reliance on natural resources, particularly gold, has only intensified instability rather than fostering sustainable development. The fight for control over these valuable assets has fueled violence and deepened divisions, making peace even more elusive. At its core, this is not just an economic downturn—it is a human tragedy. Millions of people are caught in the crossfire, struggling to survive without access to necessities like food, water, and healthcare (Lennon, [2025](#)).

The human cost of Sudan's war is staggering. Over 30.4 million people—more than two-thirds of the population—urgently require humanitarian assistance, including food, medical care, and necessities. The economic collapse has sent the prices of essential goods soaring, rendering them unaffordable for much of the population. More than half of the Sudanese citizens are facing acute food insecurity, and famine-like conditions have been confirmed in North Darfur and the eastern Nuba mountains, with the crisis expected to spread to additional regions by mid-2025 (Elamin et al., [2024](#)).

This conflict also causes one of the main displacement issues worldwide. As of 2025, 12 million people have been forcibly displaced; among them are about 3 million refugees who have fled to neighboring countries such as Chad, Egypt, South Sudan, and Ethiopia, along with 8.5 million internally displaced persons (IDPs). Already dealing with social and economic problems, nations that host refugees are inundated with displaced Sudanese people who tax their humanitarian supplies (Al Mahdi et al., [2024](#)). Beyond movement, Sudan's medical and educational systems are almost at a collapse. The war has destroyed hospitals and schools, leaving only 30% of health facilities operational, causing a critical shortage of medical supplies. Communicable diseases, malnutrition, and psychological trauma are increasingly prevalent, particularly among young infants and displaced populations. With approximately 90% of schools closed or repurposed for emergency shelter, the education system has also been equally devastated, threatening the future of a whole Sudanese generation.

This study aims to comprehensively examine the multifaceted consequences of the ongoing conflict in Sudan, with a particular focus on

its impact on healthcare systems, educational infrastructure, and patterns of internal displacement. By analyzing the latest available data, the study underscores the critical urgency of coordinated international engagement and the adoption of sustainable conflict resolution strategies. Addressing these complex challenges requires a holistic, multi-dimensional approach that integrates immediate humanitarian assistance, robust diplomatic efforts, and long-term recovery and reconstruction initiatives. Without a timely and effective global response, Sudan risks enduring widespread devastation, deepening regional instability, and the irreversible collapse of its vital national institutions.

Research Questions

- In what ways has the ongoing armed conflict in Sudan affected the availability, accessibility, and functionality of healthcare services across different regions of the country?
- What are the immediate and long-term effects of the war on Sudan's educational infrastructure, including school facilities, teacher availability, and student learning outcomes?
- How has the conflict influenced patterns of internal displacement and refugee movements, and what are the broader implications for humanitarian response capacity and regional political and social stability?

Material and Method

This study adopts a mixed-methods approach, utilizing both qualitative and quantitative data obtained from secondary sources over a period from 15 April 2023 to 13 March 2024. The focus is on triangulating data from credible, internationally recognized organizations to assess the humanitarian consequences of the ongoing conflict in Sudan.

Theoretical Framework

The study is grounded in the Conflict Impact Assessment Framework, which provides a structured lens to evaluate how armed conflict disrupts essential sectors such as healthcare, education, and population mobility. This framework facilitates the analysis of conflict-induced vulnerabilities, institutional breakdowns, and societal resilience across multiple dimensions.

Data Sources

The data for this study were retrieved from trusted and authoritative sources, including the World Health Organization (WHO), the International Organization for Migration (IOM), the United Nations High Commissioner for Refugees (UNHCR), as well as peer-reviewed journal articles and academic publications. These data sets comprised statistical reports, situation updates, displacement tracking matrices, and comprehensive assessments of the damage sustained by Sudan's healthcare and educational infrastructure due to the ongoing conflict.

Data Analysis Method

Quantitative data were analyzed using descriptive statistical techniques, allowing for the identification of trends, regional disparities, and time-based changes in healthcare access, school closures, and displacement figures. Qualitative data (narrative reports, policy briefs, and field updates) were subjected to thematic analysis, enabling the extraction of key themes such as systemic collapse, institutional neglect, and humanitarian bottlenecks. Themes were coded and cross-verified to ensure reliability and internal consistency.

Ethical Considerations

Although this study relies exclusively on secondary data, strict ethical standards were maintained throughout the research process. All sources were properly cited and derived from publicly accessible and reputable platforms. Care was taken to avoid the misrepresentation of sensitive information, and the dignity of individuals and communities referenced in the reports was fully respected. The study also adhered to the data use and citation guidelines specified by the original data-providing organizations. Importantly, no personal identifiers or confidential information were included in the analysis.

Result and Discussion

How the War Is Disrupting Sudan's Healthcare System

The conflict in Sudan has caused a humanitarian catastrophe, critically jeopardizing the health of the public and the health care system as a whole (Al Mahdi et al., [2024](#)). Even before the conflict, Sudan's healthcare system was underfunded and disorganized and had significant medical staff shortages (Khogali & Homeida, [2023](#)). Nearly 96% of people paid for their

healthcare out of pocket; the density of medical professionals stayed much below WHO recommendations (El-Bushra et al., [2025](#)). Still with these difficulties, Sudan had moved gradually toward the Sustainable Development Goals (SDGs). But the beginning of war has reversed these gains, leading to practically a total collapse of healthcare services and a sharp rise in preventable diseases (Dafallah et al., [2023](#)).

Starting in April 2023, the growing conflict has left 11 million people severely in need of healthcare. Now over two-thirds of the big hospitals are non-functional, and those that are still operational face risk of closure from manpower shortages, insufficient medical supplies, unclean water, and power outage. Direct strikes on medical facilities have hindered patient access as well as that of health workers. While disease surveillance systems have collapsed—severely hindering efforts to identify and limit outbreaks—hospitals, medical warehouses, and supply lines have also been attacked and robbed (World Health Organization [WHO], [2025](#)).

By the end of 2023, over 70% of government and commercial healthcare facilities had closed. Out of the 58.5% of closed hospitals in Khartoum State, hundreds of individuals fled to Gezira State only to find that 56.2% of those facilities were likewise forced to close. Similar devastation occurred elsewhere; forty percent of hospitals in Central Darfur and thirty percent in North Darfur stopped operating. Direct attacks, looting, and personnel shortages have caused these closures leaving millions without access to required medical treatment (Alamin et al., [2024](#)).

Medical professionals have been killed, injured, or driven to leave, therefore drastically reducing the fieldwork personnel. Patients suffering from chronic conditions such diabetes or renal failure are deprived of medications or therapeutic access. Disturbance of supply lines and health center looting have aggravated the situation. Stealing ambulances has led locals to carry the ailing citizens on wheelbarrows or donkey carts. Widespread shortages of supplies and limited access to medical professionals have taxed the system. Many of them were unpaid for months, hence thousands of doctors and nurses left the country (El-Bushra et al., [2025](#)). Devastating infectious disease outbreaks including cholera, measles, dengue fever, and malaria are sweeping displaced individuals in crowded and dirty surroundings. Although cholera outbreaks have claimed around three hundred lives, malnutrition—especially in children—has also reached crisis proportions. Unavailability of clean drinking water and the risky



disposal of dead bodies add even more public health risks. Moreover, aggravating people's mental health are factors like continuous violence, dislocation, and protracted stress (Hassan & Ibrahim, [2025](#)).

The collapse of healthcare infrastructure has contributed to the resurgence of previously controlled diseases. Although malaria cases had been in decline, the disease is now spreading more widely due to poor drainage systems and insufficient mosquito control measures. Cholera outbreaks are caused in refugee and IDP camps by polluted water and poor sanitation (Kostandova et al., [2022](#)). Major measles outbreaks brought on by lowered immunization campaigns expose thousands of unprotected children. These illness outbreaks are stressing Sudan's already crippled medical system (Omer & Härtl, [2024](#)).

The crisis also affects health on a regional and global level. Millions of displaced persons have fled to nearby countries such as Chad, Egypt, South Sudan, the Central African Republic, and Ethiopia, therefore taxing already taxed healthcare systems and increasing the potential of cross-border disease spread. Underlining the obvious requirement of global cooperation, failure to manage diseases in Sudan could have far-reaching consequences in a highly mobile world (Miller et al., [2020](#)).

Dealing with this scenario requires a coordinated, long-term humanitarian reaction. First concerns are restoring healthcare services, ensuring the safety of healthcare professionals, and providing basic medical supplies—including vaccines, drugs, and diagnostic tools (Amisu et al., [2024](#)). Moreover, crucial for preventing more cholera outbreaks in displacement camps is making the availability of clean water, sanitation, and hygiene (WASH) facilities. Notwithstanding security and logistical challenges, efforts also should focus on restarting vaccination campaigns, notably for diseases like Ebola and measles (Homeida, [2023](#)). Moreover, international help is crucial to let Sudan's neighbors regulate the consequences of mass displacement on public health and enhance regional disease surveillance (Essar & Head, [2023](#)). The Sudan conflict is a public health emergency harming millions of people due to diseases epidemic, malnutrition, and poor medical treatment. Immediate global action is necessary to stop more degradation, aid in healthcare recovery, and prevent a more general health disaster. This situation of affairs highlights the horrible consequences of armed conflict on public health and the essential

need of rapid, well-coordinated humanitarian operations to protect sensitive areas (WHO, [2025](#)).

The Impact of the War on Sudan's Education System

Sudan's education system is experiencing one of the worst crises globally, with the ongoing war disrupting learning for over 90% of the country's 19 million school-aged children (Save the Children International, [2024](#)). School destruction, hostile attacks on educational facilities by armed groups have left nearly 18 million children lacking official education. Even before the war, some 7 million children were already either absent from school or receiving inadequate education (Elhag & Baleela, [2025](#)).

The collapse of Sudan's educational system affects both financial and social stability over the long run. Extended school closures deny young people and children essential skills, therefore limiting future employment prospects and increasing economic stagnation (Tubiana, [2023](#)). Lack of an educated workforce lowers national progress, thereby enabling cycles of poverty and instability most likely to endure for decades. Disadvantaged groups suffer disproportionately, particularly youngsters living in very violent environments. Areas like North Darfur have the greatest dropout rates among other issues including school closures, damaged infrastructure, and socioeconomic hardships (Attaullah, [2024](#)).

Beyond basic and secondary education, Sudan's higher education sector has suffered tremendously. Serving over 669,000 students and employing 21,484 academic staff—before the war—the country had 128 higher education institutions—68 of which were in Khartoum (Olson et al., [2024](#)). But university operations have been suspended, research facilities destroyed, and both academics and students have been displaced (Alamin et al., [2024](#); Olson et al., [2024](#)). Many universities have been forced to relocate or transition to online learning in safer cities, but the devastation caused by the war greatly limits Sudan's intellectual and research capability (Semenenko & Bilous, [2023](#)). These upheavals mirror those of other war-torn countries including Syria, Yemen, and Ukraine, where the loss of infrastructure and displacement of teachers have impeded higher education (Alawadhi, [2024](#); Kirui et al., [2024](#); Milton, [2019](#)).

The war has aggravated already existing vulnerabilities in Sudan including worsening food shortages, disruptions of healthcare, and unsteady economy. With 18 million people enduring famine (Ghebreyesus, [2024](#)),

roughly 56% of rural homes are presently extremely food insecure. Only thirty percent of health facilities are still operational, which raises humanitarian concerns (Hassan, [2023](#)). The great migration of Sudanese people—including academics, students, and intellectuals—highlights even more the scope of the problem. Still, the condition of displaced academics is not well enough documented, so, greater research on their long-term prospects and reintegration is required (Olson et al., [2024](#); United Nations High Commissioner for Refugees [UNHCR], [2025a](#)).

Rebuilding Sudan's educational system demands for a multimodal approach including policy measures to eliminate systematic disparities, infrastructure rehabilitation, and teacher training. Without fast intervention, a whole generation faces the risk of being left behind. International collaboration is necessary to rebuild Sudan's educational system and ensure that displaced teachers and students may finish their degrees and assist the country in recovery.

The Displacement Crisis Overview

Since the commencement of the conflict in April 2023, Sudan is the top displacement disaster in the world with 12.9 million forcibly displaced—8.9 million internally and 3.7 million seeking asylum in surrounding nations. Currently, the largest displacement issue worldwide, this seriously affects Sudan as well as the neighboring countries (ReliefWeb, [2025a](#)). About 3.7 million Sudanese had already left for Egypt, Chad, South Sudan, Ethiopia, Libya, Uganda, and the Central African Republic (CAR) by October 2024. Egypt has received the largest number of Sudanese refugees, while South Sudan hosts both repatriated South Sudanese nationals and individuals displaced by the conflict in Sudan. Although Chad already boasts a sizable population of Sudanese refugees, there is a continuous immigration there as well. Inside Sudan, about 8.9 million people have been internally displaced, aggravating already poor conditions; 25 million people—about half the population—need emergency humanitarian assistance. The situation worsened even more when famine was confirmed in areas of North Darfur in August 2024 leaving millions without access to basic commodities (UNHCR, [2025b](#)).

The humanitarian situation inside Sudan goes beyond a simple emergency degree. Among the most important necessities are water, food,

shelter, healthcare, and simple humanitarian goods for displaced persons (Tubiana, [2023](#)).

Sudan and neighboring countries were already hosting substantial refugee populations prior to the current crisis. As a result, they now face an overwhelming humanitarian burden and are in urgent need of additional support; however, funding appeals have elicited limited international responses (Omer et al., [2024](#)). Six of the UNHCR national operations involved in the Sudan response were already practically underfunded before the war, making it almost too difficult to meet the growing needs of the displaced people (ReliefWeb, [2025b](#)).

The continuous influx of new arrivals in refugee camps within Sudan overwhelm already limited resources, particularly regarding water and sanitary facilities, which generates significant demand. A failed healthcare system aggravates cholera outbreak caused by poor sanitation, therefore depriving 60% of the population of medical access. In an effort to prevent cholera, the UNHCR and health partners have scaled up early warning systems, contact tracing, and surveillance. Nevertheless, displaced individuals continue to face significant challenges, particularly due to the rapid spread of respiratory infections, malaria, and waterborne diseases, which remains a major concern (ReliefWeb, [2025b](#)).

Food shortages affect the humanitarian crisis even more. Malnourishment and disease susceptibility result from merely 30% to 60% of the required food rations being provided to refugees in Chad, Ethiopia, South Sudan, and Uganda. In addition to rising rates of measles, acute respiratory illnesses, and acute watery diarrhea, refugee camps in Chad and South Sudan have reported an increase in malaria cases due to the rainy season. Displaced children's education has been especially affected. Ten thousand Ethiopian refugee children desperately need psychiatric care, teacher training, and classroom building materials. Funds for schooling also assist to enroll 73,000 Sudanese refugee children into the Egyptian educational system. Without rapid intervention, a generation of Sudanese children faces the risk of being deprived of education, therefore increasing the long-term consequences of this disaster (Liyew, [2025](#)).

The great congestion of the refugee camps is a serious humanitarian challenge. The makeshift border settlements in Chad lack sufficient shelter, sanitation, and access to basic utilities, and over 200,000 Sudanese refugees

find themselves in unstable conditions. Funding restrictions prevent the UNHCR from relocating people to official, safe towns with sustainable infrastructure. Meanwhile, existing refugee camps in South Sudan are full and in need of quick enlargement to prevent greater strain on housing, clean water, sanitation, and education.

Responding on behalf of UN agencies, international NGOs, Red Crescent and Red Cross movement participation, the UNHCR is providing coordinated protection, immediate aid, and long-term support for displaced persons. Dealing with host governments, this means building integrated communities with inclusive social services, commercial opportunities, and long-term stability for refugees. Millions of individuals are thus left vulnerable to harsher circumstances since the degree of relocation still exceeds the resources at hand.

As the war shows no indication of ending in 2025 (Alawadhi, [2024](#)), Sudan's humanitarian crisis is probably going to get worse and millions of people's life is at risk. The protracted war has left many Sudanese people in a great need of food, shelter, medical treatment, and education as children risk being lost as a generation. Millions of people are currently caught in limbo attempting to rebuild their lives under misery and uncertainty. Their futures are threatened by the crisis continuing without regular international financial and political intervention.

Internal Displacement

Of the 6.4 million displaced persons, 5 million are IDPs; the remaining are refugees, asylum seekers, returnees, and self-relocated Sudanese refugees; 50% of them are children and 51% female (Maru, [2023](#)). International Organization for Migration (IOM), notes just 3.2% of the IDPs as non-Sudanese nationals (International Organization for Migration [IOM], [2024](#)).

Figure 1

Internal Displacement of the conflict in Sudan (15 April 2023- 28 February 2025) (International Organization for Migration [IOM], [2025](#))

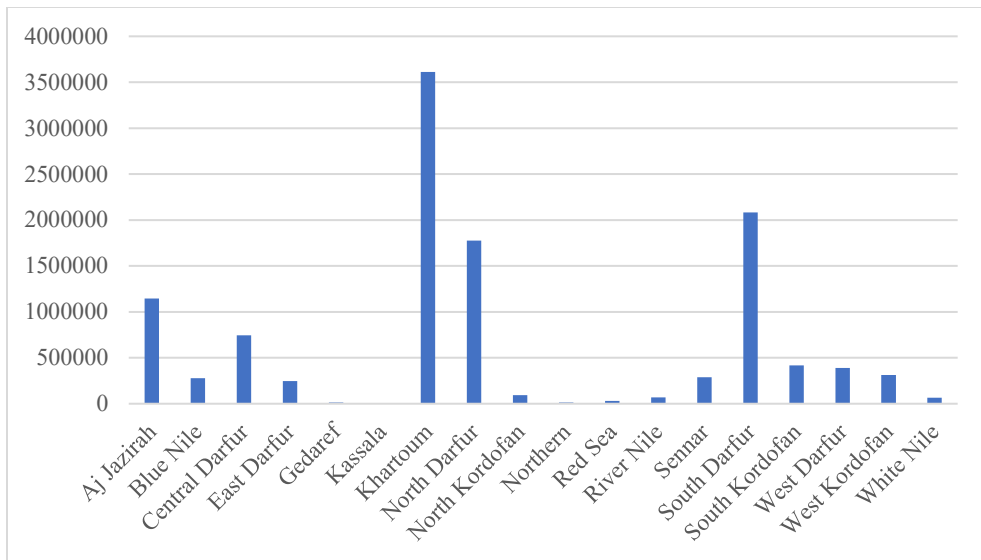


Figure 1 presents internal displacement of the conflict in Sudan between 15 April 2023 to 28 February 2025. It shows that 11.6 million IDPs have been distributed to over 10,238 sites in 185 places across all 18 states of Sudan, making it one of the most severe displacement crises in the world. The displaced persons emerging from the continuous fighting in the nation show that an estimated 8.86 million people have been internally displaced since the crisis started on April 15, 2023 with 3.5 million fleeing overseas. The number indicates that the situation has especially affected metropolitan areas including displaced people mostly from Khartoum, South Darfur, and North Darfur. Using data from Khartoum (31%), South Darfur (18%), and North Darfur (15%), It can be assumed that 29% of IDPs were uprooted before April 2023 and have later been displaced once more, underscoring the compounded effects of continuous violence and instability. Clear regional differences in displacement trends are shown by the three states with the most IDPs: River Nile (9%), North Darfur (15%), and South Darfur (16%). With 53% of the whole IDP population displaced, this calamity raises quite alarming concerns. Children are particularly vulnerable to exploitation, lack of education, and malnutrition; hence, this strains already inadequate systems of humanitarian relief.

The degree of displacement in Sudan highlights the immediate need for further worldwide humanitarian involvement as well as sustainable solutions for displaced people. In order to prevent a long-lasting disaster capable of further destabilizing the area, immediate humanitarian needs must be taken care of. Furthermore, guaranteeing access to education for displaced children would help resolve the conflict.

Millions of people have been driven from their homes since the start of the armed conflict in Sudan in mid-April 2023, hence generating one of the most terrible displacement crises in recent history. The violence has affected immigrants from various nations who had previously sought safety in Sudan, as well as Sudanese people. Owing to the extensive violence, infrastructural devastation, and humanitarian calamity, mass population movements both inside and across national boundaries have occurred. While some displaced persons have tried to go back to their homelands under dire conditions, many have sought refuge in nearby nations. The degree of displacement has greatly burdened host countries and humanitarian groups, aggravating already existing social and financial problems.

Regional Refugee Displacement Trends

Table1

Analysis of Sudan's Displacement Crisis and Regional Refugee Movements

Country	Data Date	Refugee returnees	Sudanese refugees/asylum seekers	Non-Sudanese refugees/asylum seekers	Total New Arrivals	Individually Registered Refugees
Chad	March 2, 2025		763,620		763,620	714,084
South Sudan	March 2, 2025	723,770	336,451	3,849	1,064,070	224,005
Egypt	January 31, 2025				1,500,000	596,803
Libya*	February 9, 2025		240,000		240,000	44,616
Uganda	March 3, 2025		67,948		67,948	67,948
Ethiopia	March 3, 2025	17,552	42,618	10,332	70,502	9,643
CAR	February 28, 2025	6,360	34,639		40,999	31,607

Note. Estimate of the number of new arrivals (registered and un-registered). The new arrivals figures are generally based on numbers counted around

border crossings, whereas registered refugees have gone through an individual registration process and reflect post April 15, 2023 figures.

Source: UNHCR registration data

Table 1 depicts the trends in regional refugee displacement throughout the period between April 15, 2023 through March 2, 2025. New Sudanese refugees have exploded into the Central African Republic (CAR), Chad, Egypt, Ethiopia, Libya, South Sudan, and Uganda. Chad and South Sudan have received the highest numbers of displaced individuals; Chad hosts 763,620 fresh Sudanese refugees while South Sudan permits 1,064,070 arrivals—including 723,770 returns and 336,451 newly displaced Sudanese refugees. With 1.5 million Sudanese refugees and asylum seekers, Egypt constantly watches and stresses its significance as the primary place of shelter from the violence. Libya is unstable, yet it has absorbed 240,000 Sudanese migrants; Ethiopia, Uganda, and CAR have jointly received 178,449 persons, so boosting their already delicate refugee count.

The differences in refugee registration statistics highlight host country treatment of displaced populations. For example, although South Sudan has only registered 224,005 refugees, showing a difference between total arrivals and those formally recorded, Chad has registered 714,084 refugees alone. With one of the highest influxes, Egypt reported 596,803 refugees, which indicates the administrative challenges managing such a large population. Ethiopia and CAR both suffer from low resources to proper control of new arrivals, with 9,643 and 31,607 registered refugees respectively.

Challenges for the Host Countries and Humanitarian Response

The massive stream of Sudanese refugees has seriously strained the resources of the host countries, especially in Egypt, Chad, and South Sudan. These countries were already managing large numbers of refugees before the Sudan crisis. Today, they suffer severe shortages in food, water, medical treatments, and housing. For instance, South Sudan is dealing with many returnees who may lack access to basic facilities and safe living conditions. Historically embracing Darfur migrants from Sudan, Chad is witnessing worsening humanitarian situations from crowded camps to inadequate relief supplies (UNHCR, [2024](#)). Egypt is increasingly in need of housing, medical facilities, and employment opportunities given more than 1.5 million Sudanese migrants. The large number of unregistered refugees suggests that

many of them live in metropolitan areas without official assistance, therefore hampering attempts at humanitarian response. Migrants in Libya face major risks of exploitation, trafficking, and forced labor, largely stemming from political instability and an insecure security environment (Alsharif, [2024](#)).

Ethiopia, CAR, and Uganda are already dealing with internal challenges and are trying to provide the new arrivals with sufficient protection, education, and healthcare facilities (WHO, [2024](#)).

Humanitarian Gaps and Future Outlook

Even with ongoing global aid initiatives, the humanitarian response is still much underfunded. Many nations that welcome refugees are unable to even meet the most basic needs of displaced individuals since food supplies are so limited in some areas due to funding restrictions. Particularly in Chad and South Sudan, the lack of suitable sanitation in camps has led to cholera, malaria, and other infectious diseases; health services are strained. Children's safety services and support are sorely required in Ethiopia and Uganda given thousands of refugee children being out of education (WHO, [2024](#)). As the Sudanese crisis has no clear resolution, displacement is expected to get more severe in 2025. Without fast international intervention, host countries could find it more difficult to sustain the growing refugee population, leading to a likely secondary displacement and further regional instability. Long-term solutions involving resettlement programs and economic inclusion initiatives as well as increasing cross-border coordination and securing more humanitarian money is vitally crucial in order to tackle the problem. With about 12 million people displaced resulting from the ongoing conflict, the Sudanese displacement issue is among the most significant humanitarian crises of our day (WHO, [2024](#)). The neighboring countries most impacted by this calamity need ongoing, robust assistance to provide the displaced people protection, medical treatment, and basic services. While the war rages on and the risk of extended displacement, worsening living circumstances, and regional destabilization increases, the international community should act fast and aggressively to stop more suffering.

The table shows that Sudan is suffering from one of the harshest humanitarian disasters in the world because of the unmatched displacement crisis. The shockingly high 12,869, 601 total number of forcefully displaced

persons had surfaced by March 3, 2025. Along with 8,856,313 IDPs still residing in Sudan, this total includes 3,747,139 recently arrived refugees, asylum seekers, and returnees who have fled to nearby countries. As of early March 2025, around 2,999,457 Sudanese refugees and asylum seekers had sought asylum in countries including Chad, Egypt, South Sudan, Ethiopia, Libya, the Central African Republic, and Uganda. Chad and Egypt have experienced the biggest immigration; Chad hosts over 1.4 million refugees from Darfur and Egypt, largely from Khartoum and northern Sudan. The ongoing fighting has driven millions of migrants across borders, thus straining the already fragile humanitarian system of Sudan's neighbors. Of the displaced, 747,682 are returnees—people who had left prior to the crises in Sudan but have now been driven back to their countries of birth because of the mounting carnage. Many of these returnees are South Sudanese nationals who were displaced by civil war in their home country. Their return does not always mean, though, a better quality of living; many endure comparable issues in their own countries, including lack of resources, political upheaval, and minimal economic options.

The sheer extent of relocation has overwhelmed already limitedly funded humanitarian groups. Among other necessities, basic services have broken down inside Sudan and IDPs lack access to food, water, and medical treatment.

Results of the crisis are widespread damage, deadliness, and a massive humanitarian tragedy. The power battle between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF) produces mass displacement, economic collapse, and breakdown of vital services including healthcare and education. Dealing with this scenario needs requires smart policy reactions as well as long-term peacebuilding projects and fast humanitarian help.

Strategies for Healing Healthcare Systems and Education

The ongoing violence is significantly damaging the sectors of education and healthcare which means that millions of people in Sudan lack access to even basic services. Rebuilding these systems calls for both fast steps and long-term plans to ensure sustainability and restore functionality. The first element in rebuilding Sudan's healthcare system is the fast deployment of mobile clinics and emergency medical teams to the regions affected by violence. These teams provide fast medical assistance, resolve simple health

issues, and treat injuries. Rebuilding hospitals and healthcare facilities should also be given top attention, considering trauma centers and maternity wards to help the most underprivileged communities. Stopping illness outbreaks determines much of the effort at recovery. Vaccination efforts and guaranteed access to clean water would help reduce diseases and would minimize health emergencies. Support of Sudanese medical professionals and availability of required drugs will also rely significantly on foreign partnerships. By applying world resources and knowledge, the country may rebuild a powerful healthcare system fit for its people.

Restoring Sudan's educational system requires both wise and fast responses. Building temporary learning spaces for displaced children and young people would provide fast access to education, therefore preventing long-term disruptions in their academic development. Moreover, the development of online and remote learning programs would ensure continuous education for students who cannot access real-time classes. Establishing a stable learning environment depends on the availability of teaching instruments and institution restoration. Teacher training and support are just as important since they will enable them to carry on their obligations and manage post-conflict educational problems. Through professional growth for educators, one can help maintain educational standards and give the students normalcy.

Sudan's reconstruction mostly rests on economic development. By means of their investments in infrastructure and economic recovery projects, employment will be created and living standards will be raised. Programs meant to assist young people in finding employment and small businesses will help reduce economic inequality and prevent forthcoming conflicts. Projects of community-based reconciliation would help Sudanese people heal and rebuild confidence as well. Conversations, education, and cultural projects, and encouragement of social cohesion would help produce a society that is stronger and more unified.

Sudan's crisis demands a fast global reaction to satisfy immediate humanitarian needs and build foundation for long-term stability. Governments, NGOs, and international agencies must cooperate if we are to rebuild essential services, provide aid, and advance peace. Without continuous help, Sudan stands the risk of having greater misery for its people and protracted instability. Right now, is the moment of action.

Conclusion

This study has examined the far-reaching consequences of the ongoing conflict in Sudan on three critical domains: healthcare, education, and displacement. The findings highlight how the war has severely undermined the functionality and accessibility of healthcare services, disrupted the educational infrastructure, and triggered large-scale internal displacement and refugee flows. These disruptions not only endanger the well-being of the Sudanese population but also pose serious challenges to regional stability and global humanitarian response systems.

The study underscores the urgent need for a coordinated international effort that combines immediate humanitarian relief with long-term strategies for recovery and sustainable peacebuilding. Effective engagement must be multi-dimensional, involving diplomatic initiatives, institutional reconstruction, and socio-economic development to prevent further deterioration and support Sudan's path to recovery.

Limitations

Despite its contributions, this study is subject to several limitations. First, the analysis relies heavily on secondary data sources, many of which may be outdated or incomplete due to the volatile nature of the conflict. Field-based data collection was not feasible, limiting the ability to validate findings directly on the ground. Additionally, there is a scarcity of disaggregated data by region, age, or gender, which restricts a more nuanced understanding of the conflict's differential impacts.

Directions for Future Research

Future research should aim to address these limitations by incorporating primary data collection, including interviews and field surveys when security conditions permit. Studies focusing on the gender and age specific effects of the conflict, especially on women and children, are particularly needed. Moreover, longitudinal research is essential to track the long-term consequences of the conflict on education, health, and livelihoods. Comparative studies with other conflict-affected countries may also provide valuable insights for policy and intervention design.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

Data will be provided by corresponding author upon reasonable request.

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References

- Al Mahdi, T. A., Fahal, A. H., & El Mardi, A. S. (2024). Health ramifications and recovery avenues for Sudan's April 2023 armed conflict: A review. *Sudan Journal of Medical Sciences*, 19(1), 132–147. <https://doi.org/10.18502/sjms.v19i1.15789>
- Alamin, N. K., Idris, A. A., Khugali, G., Kalcon, G. O., & Khaleel, M. (2024). Science in times of war: Reflections from Sudan. *ASFI Research Journal*, 1(1), Article e13267. <https://doi.org/10.70040/asfirj-k1ps-t6gv>
- Alawadhi, H. (2024). The effects of war on the quality of higher education in Yemen: Scholars' perspectives. *International Journal of Educational Development*, 108, Article e103058. <https://doi.org/10.1016/j.ijedudev.2024.103058>
- Alsharif, A. H. A. (2024). Illegal immigration across Libya to Europe: Patterns, challenges and human rights implications. *European Journal of Political Science Studies*, 7(2), 220–234. <http://dx.doi.org/10.46827/ejpss.v7i2.1863>
- Amisu, B. O., Okesanya, O. J., Adigun, O. A., Manirambona, E., Ukoaka, B. M., Lawal, O. A., Idris, N. B., Olaleke, N. O., Okon, I. I., Ogaya, J. B., & Prisno, D. E. L. (2024). Cholera resurgence in Africa: Assessing progress, challenges, and public health response towards the 2030 global elimination target. *Le Infezioni in Medicina*, 32(2), 148–156. <https://doi.org/10.53854/liim-3202-4>
- Attaullah, Boulaaras, S., Jan, A. U., Hassan, T., & Radwan, T. (2024). Mathematical modeling and computational analysis of hepatitis B virus transmission using the higher-order Galerkin scheme. *Nonlinear Engineering*, 13(1), Article e20240048. <http://dx.doi.org/10.1515/nleng-2024-0048>

- Dafallah, A., Elmahi, O. K., Ibrahim, M. E., Elsheikh, R. E., & Blanchet, K. (2023). Destruction, disruption, and disaster: Sudan's health system amidst armed conflict. *Conflict and Health*, 17(1), Article e43. <https://doi.org/10.1186/s13031-023-00542-9>
- Elamin, A., Abdullah, S., ElAbbadi, A., Abdellah, A., Hakim, A., Wagiallah, N., & Ansah, J. P. (2024). Sudan: From a forgotten war to an abandoned healthcare system. *BMJ Global Health*, 9(10), Article e016406. <https://doi.org/10.1136/bmjgh-2024-016406>
- El-Bushra, H., Izzoddeen, A., Haroun, A., ElBushra, E., Abolgasim, H., Abashar, M., Abolgassim, A., Mohamed, E., Elhassan, M., Al-Souri, R., Bashier, H., & Khader, Y. (2025). Multistate cholera outbreak in Sudan amid ongoing armed conflict, 2023-2024. *International Journal of Infectious Diseases*, 153, Article e107788. <https://doi.org/10.1016/j.ijid.2025.107788>
- Elhag, H. E. E. A., & Baleela, R. M. (2025). Preliminary investigation and analysis of the impact of the Sudan War on higher education and scientific research sectors. *International Journal of Educational Development*, 112, Article e103190. <https://doi.org/10.1016/j.ijedudev.2024.103190>
- Essar, M. Y., Siddiqui, A., & Head, M. G. (2023). Infectious diseases in Afghanistan: Strategies for health system improvement. *Health Science Reports*, 6(12), Article e1775. <https://doi.org/10.1002/hsr2.1775>
- Ghebreyesus, T. A. (2024). Sudan is facing a devastating humanitarian crisis—the world must do more to protect the population's health. *BMJ*, 385, Article eq864. <https://doi.org/10.1136/bmj.q864>
- Hassan, I. N., Abuassa, N., & Ibrahim, M. (2025). The Sudan conflict: A catalyst for the spread of infectious diseases in displaced populations. *International Journal of Infectious Diseases*, 151, Article e107326. <https://doi.org/10.1016/j.ijid.2024.107326>
- Hassan, M. H. (2023). Sudan's disastrous war—and the science it is imperilling. *Nature*, 623(7985), Article e10. <https://doi.org/10.1038/d41586-023-03341-7>
- Homeida, A. (2023). The complexities of conflict-induced severe malnutrition in Sudan. *BMJ Global Health*, 8(12), Article e014152. <https://doi.org/10.1136/bmjgh-2023-014152>

- Imam, M. A. (2023). The dynamics of socio-political conflict and national disintegration in Sudan. *IJO-International Journal of Social Science and Humanities Research*, 6(8), 1–18.
- International Organization for Migration. (2024, December 12). *DTM Sudan - countrywide mobility update 12 (Bi-Weekly)*. <https://dtm.iom.int/datasets/dtm-sudan-countrywide-mobility-update-12-bi-weekly>
- International Organization for Migration. (2025). *Sudan: Middle East and North Africa*. <https://dtm.iom.int/sudan>
- Khogali, A., & Homeida, A. (2023). Impact of the 2023-armed conflict on Sudan's healthcare system. *Public Health Challenges*, 2(4), Article e134. <https://doi.org/10.1002/puh2.134>
- Kirui, O., Siddig, K., Ahmed, M., Abushama, H., & Seyoum, T. (2024). *Impact of the ongoing conflict on smallholder farmers in Sudan: Evidence from a nationwide survey*. International Food Policy Research Institute. <https://doi.org/10.2499/p15738coll2.137064>
- Kostandova, N., Loiate, S., Winter, A., Moss, W. J., Giles, J. R., Metcalf, C., Mutembo, S., & Wesolowski, A. (2022). Impact of disruptions to routine vaccination programs, quantifying burden of measles, and mapping targeted supplementary immunization activities. *Epidemics*, 41, Article e100647. <https://doi.org/10.1016/j.epidem.2022.100647>
- Lennon, C. (2025, February 14). *Sudan, 'the most devastating humanitarian and displacement*. United Nations. <https://news.un.org/en/story/2025/02/1160161>
- Liyew, E. B. (2025). Shattering impact of the Sudan conflict on regional stability. *African Identities*. Advance online publication. <https://doi.org/10.1080/14725843.2025.2473989>
- Maru, M. T. (2023). *Sudan's atrocious political transition: Resolving the displacement and humanitarian crisis*. United Nations University. <https://cris.unu.edu/sudan%E2%80%99s-atrocious-political-transition-resolving-displacement-and-humanitarian-crisis>
- Miller, N. P., Ardestani, F. B., Dini, H. S., Shafique, F., & Zunong, N. (2020). Community health workers in humanitarian settings: Scoping

- review. *Journal of Global Health*, 10(2), Article e020602. <https://doi.org/10.7189/jogh.10.020602>
- Milton, S. (2019). Syrian higher education during conflict: Survival, protection, and regime security. *International Journal of Educational Development*, 64, 38–47. <https://doi.org/10.1016/j.ijedudev.2018.11.003>
- Musa, M. K., Haruna, U. A., Zailani, A. S., Haruna, U. A., Eshun, G., Biney, G. K., Abdulsalam, A., Adamu, N. A., Zakariya, F., Zakariya, F., Modber, M. A. A., & Musa, M. B. (2024). Public health consequences of armed conflict in Sudan in the face of global donor fatigue. *Public Health Challenges*, 3(1), Article e156. <https://doi.org/10.1002/puh2.156>
- Olson, S. K., Dahab, M., & Parker, M. (2024). *Key Considerations: Mutual aid lessons and experiences from Emergency Response Rooms in Sudan*. Institute of Development Studies. <https://www.ids.ac.uk/publications/key-considerations-mutual-aid-lessons-and-experiences-from-emergency-response-rooms-in-sudan/>
- Omer, M., & Härtl, R. (2024). Urgent call for international support and research focus on neurosurgery in conflict-affected Sudan. *World Neurosurgery*, 189, 291–295. <https://doi.org/10.1016/j.wneu.2024.06.089>
- Omer, T. M., Madani, M. M., & Mohamed, T. K. (2024). The fate of Sudanese refugee scientists in times of war: Impact, experiences, challenges and prospects. *ASFI Research Journal*, 1(1), Article e15622.
- ReliefWeb. (2025a, February 25). *Sudan emergency: Population movements from Sudan (24 February 2025)*. <https://reliefweb.int/report/sudan/sudan-emergency-population-movements-sudan-24-february-2025>
- ReliefWeb. (2025b, January 21). *Sudan Emergency: Population movements from Sudan (20 January, 2025)*. <https://reliefweb.int/map/sudan/sudan-emergency-population-movements-sudan-20-january-2025>
- Save the Children International. (2024, May 28). *SUDAN: Violent attacks on schools and education surge fourfold in one year of conflict*. <https://www.savethechildren.net/news/sudan-violent-attacks-schools-and-education-surge-fourfold-one-year-conflict>

- Semenenko, I., & Bilous, Y. (2023). The role of displaced higher education institutions in recovery processes of war and post-war period: The case of Volodymyr Dahl East Ukrainian National University. *International Scientific Journal of Universities and Leadership*, 16, 32–47. <https://doi.org/10.31874/2520-6702-2023-16-32-47>
- Tubiana, J. (2023). *Darfur: Between two wars: Twenty years of conflict in Sudan, from Darfur to Khartoum and back*. Al Jazeera. <https://www.aljazeera.com/features/longform/2023/6/30/between-two-wars-20-years-of-conflict-in-sudans-darfur>
- United Nations High Commissioner for Refugees. (2025b). *Sudan: Global appeal 2025 situation overview*. <https://reporting.unhcr.org/sites/default/files/2024-11/Sudan%20Situation%20Overview.pdf>
- United Nations High Commissioner for Refugees. (2024, October 30). *Sudan RRP 2024 progress report: May - August 2024*. <https://data.unhcr.org/en/documents/details/112148>
- United Nations High Commissioner for Refugees. (2025a, February 25). *Sudan situation map weekly regional update - 24 Feb 2025*. <https://data.unhcr.org/en/documents/details/114666>
- World Health Organization. (2024, November 20). *Sudan conflict–Situation in refugee-hosting countries, Multi-country External Situation Report #6, covering the reporting period October 2024*. <https://www.who.int/publications/m/item/sudan-conflict---situation-in-refugee-hosting-countries--multi-country-external-situation-report--6--covering-the-reporting-period-october-2024>
- World Health Organization. (2025). *Public health situation analysis: Sudan conflict (10 March 2025)*. https://www.who.int/publications/m/item/public-health-situation-analysis--sudan-conflict-%2810-march-2025%29?utm_source=chatgpt.com