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**3** OPEN ACCESS

# CONCEPTUAL

# Socio-Economic Impact of the Sudan War: A Critical Analysis of the Humanitarian Crisis and Development Challenges

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#### **ABSTRACT**

**PURPOSE:** This research aims to reflect the socio-economic impact of the war in Sudan, with recommendations, polices, and strategies of development in order to achieve the sustainable development goals (SDGs).

**RESEARCH METHODOLOGY:** The research is based on a literature review, including reports from international organisations, research articles, and policy briefs, as well as previous research findings on the socio-economic impact of the war in Sudan.

**LIMITATIONS:** This research is based on a review of existing literature and may not provide a comprehensive analysis of the socio-economic impact of the war in Sudan due to insecurity. Further research is needed to understand the effects of the war on socio-economics and to develop effective mitigation strategies.

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**FINDINGS:** The war in Sudan has led to a severe humanitarian crisis, with 150,000 people killed, 24.6 million facing acute food insecurity, and 20 million at risk of famine. Additionally, 8 million people have been displaced, with 4.5 million migrating to other countries. Crop production has decreased to 40% below the average of the previous five years, and Sudan's GDP has decreased by US\$15 billion in 2025 compared to US\$33.7 billion in 2020.

**RESEARCH VALUE:** A critical analysis of the socio-economic impact of the war in Sudan highlights the need for mitigation methods to minimise food insecurity and sustain the family needs of affected people. The paper also recommends introducing income-generating units to support affected families.

**PRACTICAL IMPLICATIONS:** The findings of this research have practical implications for policy-makers, humanitarian organisations, and development agencies working in Sudan. It highlights the need for urgent action to address the humanitarian crisis and to support affected communities in addressing SDG 16 (Peace, Justice and Strong Institutions). The introduction of income-generating units can help to minimise food insecurity (SDG 2) and sustain the family needs of affected people to achieve SDG 8 (Decent Work and Economic Growth).

**KEYWORDS:** Sudan War; Socio-economic Impact; Humanitarian Crisis; Food Security; Livestock; Development Challenges

#### INTRODUCTION

The ongoing conflict in Sudan has led to a devastating humanitarian crisis and imposed socio-economic activities that are expected to persist in 2025 if the conflict continues. This war has shrunk the Sudan economy dramatically, with the prediction that it will reach its pre-war size, and household income is down by 40% in both rural and urban areas. It is stated that 1.8 million people will fall into poverty if the war is not ended by 2025 (Siddig *et al.*, 2023). Millions of people were forced to flee their homes, and millions were displaced externally. The existing challenge of war on economics is exacerbated by the decline in economic growth, low per capita rate, and investment levels. The agricultural sector is the backbone of Sudan's economy and has been severely affected by the ongoing war; this is due to a significant reduction in cultivated land size by 84%, reducing productivity and farm income. There is a decline in rural livelihoods who generate value from forest production in some conflict regions (Yousif, 2020).

The war has destroyed physical infrastructure and access to healthcare and education, water supply, and financial services, resulting in trade route difficulties. It has also caused the destruction of universities, research centres, and schools, causing raised mortality rates, food insecurity, inflation, and human violations (Mohamed and Lucero-Prisno, 2025). In addition, the war's impact has not remained inside the country but also threatened neighbouring countries through refugee flow and regional unrest (Liyew, 2025).

This paper represents a conceptual analysis of the effect of war on the socio-economic activities of families and households in Sudan based on a critical review of existing literature; this includes reports from international organisations and peer-reviewed articles, and the author's experience of income-generating units for sustaining family needs. The overall objective of this paper is to provide policy-makers, humanitarian organisations, and development practitioners with a comprehensive framework for understanding recommendation policies and mitigating strategies based on research to address the socio-economic impact of the Sudan war.

#### CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

#### **Theoretical Perspectives**

The framework analyses integrated conflict theory and economic development to explain the disruption in socio-economic networks. It also provides insight into the contraction of national productivity and agricultural food systems. The paper synthesises empirical findings of a multidimensional view of crisis-based violent conflict to construct key assumption development indicators; these become interdependent with immediate humanitarian concerns and prospective funding availability for both complicating diagnosis and remediation.

# **Empirical Evidence of Socio-Economics Challenges**

Addressing the humanitarian crisis, thousands of people have been killed as a result of the ongoing war and, at the same time, half of Sudan's people face acute food insecurity and famine conditions. Limited access to healthcare, water sanitation, and clean water has dire consequences for the humanitarian situation of millions of people who are still in need of assistance, fostering the critical challenge of funding availability (Mohamed and Lucero-Prisno, 2025).

#### Economic destruction

Gross domestic product (GDP) is expected to reduce by 48% by the end of 2025 with US\$15bn losses in the economy because of the ongoing war. Economic destruction is recorded in the great sectors such as agriculture, industry, and services. For urban households, the number of employees sharply declined, with full-time wage reduction reaching nearly half the rate in some areas (UNDP, 2024); this has resulted in an increasing number of urban households having no income (OCHA, 2024). This economic collapse and the destruction due to the disruption of trade and supply chains of agricultural activities have led to food insecurity and food inaccessibility; over 30 million face crisis levels of food insecurity (Lahrich, 2024). In addition, the war has impacted fuel and food prices, constrained resources, and livelihood coping mechanisms of households (UNHCR, 2025).

# Displacement and Migration

The African Union (AU) (2025) stated that 11.5 million people were displaced internally. Neighbouring countries such as South Sudan, which received Sudanese refugees, faced a shortage of their limited resources and trade routes (UNHCR, 2025). Moreover, the war induced several migrations, reduced access to healthcare, and food insecurity, largely affecting agriculture and livelihood (Bushama *et al.*, 2025).

# Methodology

The paper relies on secondary data sources. The research is based on a literature review, including reports from international organisations, research articles, and policy briefs from previous research findings on the socio-economic impact of the war in Sudan. To draw a comprehensive picture of socio-economic impact and recommend policy solutions, the methodological approaches were set to analyse international reports from humanitarian and development organisations, peer-reviewed articles, government and non-governmental policy reports, field reports, and economic forecasting models. To ensure a robust conclusion, the paper included quantitative and qualitative data sources. Recognising study limitations, this methodology provided a base for future empirical investigations of the socio-economics of Sudan after the war.

# **Key Findings and Discussion**

Figure 1 shows that the war has escalated a severe humanitarian crisis, with over 150,000 people losing their lives, 8 million displaced and 4.5 million having migrated. A total of 24.6 million people are food-insecure, with 20 million recorded as being at risk of famine due to the disruption of agricultural production and food shortages. These findings undermine the sustainable development goals (SDGs), such as SDG 3 (Good Health and Wellbeing), SDG 2 (Zero Hunger), SDG 16 (Peace, Justice, and Strong Institutions), and SDG 10 (Reduce Inequality).



Figure 1: Humanitarian Crisis of the Sudan War: mid-2025

Source: Compiled from the World Food Programme (2025), Perthes and Hansen (2025), UN OCHA (2025)

# **Agricultural and Animal Decline**

Agriculture is the main source of food in Sudan, contributing mainly to SDG 2 (Zero Hunger); however, crop production has generally been below the five year average compared to 2025. The decline of production was 20%, 24%, 58%, and 32% for sorghum, millet, groundnut, and wheat respectively (see Table 1). This negative impact on production was due to several reasons, such as the ongoing conflict, high cost of production, transportation, and rainfall fluctuations. Moreover, animal production has been affected due to the pasture crisis and a shortage of veterinary medicine and vaccines, which negatively affects animal health and productivity.

Table 1: Decline in Crop Production in Sudan in 2025 vs five-year average

Crops	Declined percentage
Sorghum	20%
Millet	24%
Groundnut	58%
Wheat	32%

Source: Data modified from United States Department of Agriculture, the international production assessment division, updated 2025

# **Economic Disruption**

Economic indicators reflected a dramatic slump in the national GDP. Figure 2 shows that GDP reduced from US\$51.67bn in 2022 to US\$31.51bn in 2025, because of the decrease in agricultural output and livestock production. The research found that the value of the Sudanese pound (SDG) against US dollars on the black market deteriorated from 55 SDG/US\$1 in 2020 to 600 SDG/US\$1, 1,200 SDG/US\$1 in 2023 and 2025, respectively (Figure 3). The research also found that the inflation rate increased due to the over printing of money, at 163%, 200%, 400%, and 100% in 2020, 2021, 2023, and 2025, respectively (Figure 4). These disruptions have affected national food security and economic stability.

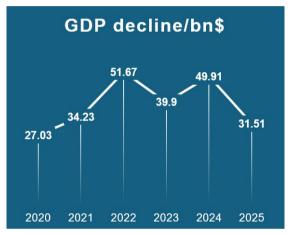


Figure 2: GDP Decline in Sudan

Source: World Bank, 2025



Figure 3: Sudanese Pound (SDG) Deterioration Against US Dollar

Source: IMF (2025)

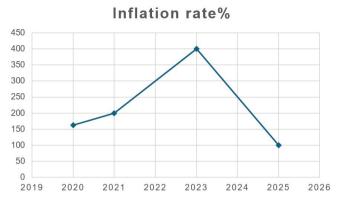


Figure 4: Inflation rate in Sudan

Source: IMF (2025)

#### POLICY IMPLICATIONS AND MITIGATION STRATEGIES

# **Examples of Income Generating Units in Sudan**

# Achieving food security contributes to SDG 1

Based on the empirical analysis, income-generating units provide vulnerable communities with the means to increase household income and mitigate climate change. Case studies of achieving food security show that these units contribute to SDG 1 (No Poverty). The study was carried out in West Omdurman, where families were provided with milking goats to generate income. The study showed that household incomes increased, and they saved some of their money to cover more daily activities and expenses. In addition, income-generating units enable local communities to become financially and economically self-dependent, and more resilient to environmental and economic crises, by alleviating food insecurity and meeting families' needs in the short term (Elnour *et al.*, 2025).

# Agroforestry and crop production contributing to SDG 15 (Life on Land)

Agroforestry parklands are a significant income-generating unit in Sudan, particularly in the semiarid Sinner state. Farmers in El Dali and El Mazmum utilise agroforestry systems that integrate trees with crops such as sorghum, pearl millet, and sesame. Over 10 years, these systems had produced the highest average yields for most crops, leading to greater economic returns than monocropping. The net present value and benefit/cost ratio for farmers are also highest in agroforestry systems, indicating their effectiveness in improving both food security and cash income. However, current land use and land rights policies discourage tree cultivation, suggesting that policy reforms could further enhance the adoption and benefits of agroforestry as an income-generating strategy (Fahmi *et al.*, 2018).

#### Baobab-based livelihoods

In rural regions such as Kordofan and Blue Nile, baobab has emerged as an important commercial crop and income source. Households often combine baobab collection and sales with other activities such as livestock rearing or crop farming. In Kordofan, for example, "livestock and baobab-based" strategies are common, while in Blue Nile, mixed strategies that include baobab are prevalent. For poorer households, baobab income can constitute a significant share of total earnings, up to 33% in Kordofan and 26% in Blue Nile. Notably, increases in baobab income are associated with reductions in income inequality (SDG 10), highlighting its role in supporting the livelihoods of the most vulnerable rural populations (Adam *et al.*, 2024).

#### Mechanised and Large-Scale Farming Contributing to SDG 9

Modern mechanised farming represents another dynamic income-generating unit in Sudan, especially in the eastern regions. Large-scale farms have the potential capacity in production to increase household income, savings, and food surplus; . In addition, the main determinants of income in this sector are farm size and capital investment. Mechanised farming not only diversifies income sources but also supports higher savings rates among farm households. Market-based pricing and trade liberalisation are recommended to stimulate further investment and production in this sector, although problems of income distribution and environmental impact require significant attention (Elhiraika, 1999).

# **Policy Recommendations and Strategies**

# Strengthen humanitarian support

In order to provide humanitarian services in conflict regions, great efforts have to be made by national and international agencies to deliver essential services such as shelter, food and water, and drugs, and promote social cohesion. Plans should then be made to reallocate the displaced people and refugees to their safe cities and regions after the war.

# Economic recovery initiatives

Economic recovery is gained by focusing on agricultural production and a strategic plan targeting productivity per area cultivated, especially in the irrigated schemes, where the technology and technical packages are implemented, using certified seeds and organic fertilisers. Improving market accessibility and market structure significantly increased agricultural incomes and opened the international market for domestic products. Improving infrastructure such as roads, factories, education, and mechanisation, together with modern and legal gold mining, has a positive impact on the community's development and increases GDP.

# Social infrastructure development

Mitigating the impact of war on displaced people reinforces communities through building social networks and supporting reconciliation among communities (SDG 5 and SDG 16). The services required to meet the necessary needs of security, peace, and stability for these communities should be supported. Accordingly, enormous funding from national and international organisations is still needed to ensure social infrastructure development (SDG 17).

# Monitoring and evaluation plan

These recommended policies and strategies require strong mechanisms to follow the impact of these findings and make suitable adjustments in response to developing adaptation.

#### **Limitations and Directions for Future Research**

Although the research presents critical insights into the socio-economic impact of the Sudan war, several limitations must be acknowledged; the research mainly relied on data from secondary sources, limiting the ongoing realities. The constraints of data collection due to insecurity in Sudan limited the depth of research analysis; however, prospective research from primary data collection can track the nature of the socio-economic impacts of the Sudan War.

#### CONCLUSIONS

This paper has presented the socio-economic impact of the Sudan war that has distressed each section of humanity, from growing humanitarian crises, economic reduction, and social destruction. This paper contributes to policy recommendations and mitigating strategies based on incomegenerating units and economic recovery plans. Dependant on humanitarian funding and assistance to aid displaced people and refugees in the short term, Sudan's economic growth can be gained through agricultural production, animal production, and promoting clean energy by using solar in agriculture production, and recycling production and waste management (SDG 12). This will contribute effectively to achieving sustainable development goals. Consequently, adopting developmental policies can be accomplished through this recommendation for both the short-term and long-term.

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