

## Sustainable Economic Development in Sudan in the Context of War and conflicts, 2023

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ARTICLE INFORMATION	ABSTRACT
<p><b>Article history:</b> Published on 7<sup>th</sup> Jan 2026</p> <p><b>Keywords:</b> War Conflicts Sustainable Economic Development Infrastructure Sudan</p>	<p>This study aimed to assess sustainable economic development in Sudan amidst war and conflict. The research problem was formulated in the following main question: What is the impact of war and conflict on sustainable economic development in Sudan? The study used a descriptive-analytical approach. The study reached several conclusions, the most important of which are: there is a negative impact of war and conflicts on foreign and domestic trade, and there is significant neglect of the key economic sectors necessary for the sustainability of long-term economic development. The study recommended the need to stop the war and conflicts in Sudan through serious negotiation and dialogue in order to revive the Sudanese economy and improve the living standards of the citizen who has suffered greatly from the war, Activating investment in infrastructure is crucial for revitalizing the Sudanese economy and enhancing its economic capacity through exports, openness to the global market, and improved foreign trade opportunities and competitiveness.</p>

### 1. Introduction

Sustainable economic development in the context of war in 2023 faces significant challenges on all sides, impacting resources and economic capabilities, increasing costs, and hindering progress. These challenges include the substantial financial burden imposed by ongoing military operations, the destruction of infrastructure, and the instability of financial and commodity markets, this makes achieving the Sustainable Development Goals extremely difficult, and the main challenges include: the enormous economic cost: conflicts impose a heavy human, political, and economic cost on all parties involved, increasing financial burdens and leading to dire long-term consequences; and the destruction of infrastructure: military operations have led to widespread destruction of infrastructure, the basic infrastructure that supports economic growth is disrupted, hindering production and distribution processes. The conflict causes significant disruptions in financial and commodity markets, negatively impacting trade and investment and undermining sustainable growth. Unstable security conditions have disrupted production in vital sectors such as agriculture and industry. The Sudanese state seeks to activate a resilient economy through policies that support productive sectors, increase the share of national products, create job opportunities, and provide social safety nets. Organizations such as the United Nations Development Programme may play a role in supporting some sectors, such as facilitating the transition to renewable energy. Achieving the Sustainable Development Goals becomes increasingly complex, requiring the implementation of resilience-building strategies, enhanced capacity building, and international cooperation to address the economic damage caused by war. This study examines sustainable economic development in Sudan amidst the 2023 war, aiming to produce findings that can stimulate sustainable economic growth.

#### 1.1 The problem of the Study

The problem addressed that sustainable development in Sudan has declined due to recent wars and conflicts, particularly during the 2023 war. Infrastructure was almost completely destroyed, unemployment and inflation rates increased, and the growth rate and national output decreased, negatively impacting the economy. Therefore, the main research question can be formulated as follows: What was the effect of war and conflict on sustainable development in Sudan, 2023?

#### 1.2 The importance of the study

The importance of the study stems from the importance of the topic, as the study seeks to understand the concept of sustainable development in the Sudanese economy, clarify its importance and evaluate it in light of the 2023 war, and to reach results and recommendations that can help decision-makers in achieving sustainable development in Sudan in light of the ongoing war and conflicts that have greatly affected the economy.

### 1.3 The Objectives of the Study

This study aimed to achieve the following objectives:

1. To identify the concept, definition, and types of sustainable development in Sudan.
2. To assess sustainable development in the context of war and conflict during the period (2023-2025).
3. To produce findings and recommendations that contribute to stimulating sustainable development processes in Sudan and ending the war that has damaged the economy.

## 2. War and Conflict in Sudan: Past and Present

Nour (2024) argues that Sudan has been greatly affected by wars and conflicts in the past, which has impacted the economy, leading to the collapse of infrastructure and a rise in unemployment, inflation, and crime rates. This situation continued with the outbreak of war in April 2023, the consequences of which were profound, including the destruction of infrastructure, Internal and external trade lagged behind, and the volume of investment, savings, and gross output declined, hindering sustainable economic development. The Sudanese economy became a rentier economy dependent on extractive industries, such as oil and gold mining, in addition to agricultural crops and livestock, with significant neglect of key sectors essential for achieving long-term sustainable economic development. Sudan, an agricultural country whose economy relies on agriculture for 80% of its output, faces the challenge of modernization and industrialization to supply both domestic and international markets, as well as the development of human capital, this situation has been exacerbated by political and security instability in the country due to the ongoing war, development and economic growth have been significantly delayed, leading to a severe decline in the Sudanese economy across all sectors. One of the main consequences of the war is the massive drain on Sudan's workforce through the forced displacement of citizens, the disruption of both private and public development projects, and recruitment into armed and mobilized factions, as a result, conflict-affected areas have experienced mass migration, leading to a loss of talent and expertise. Public and higher education have been impacted, unemployment rates have risen, and the brain drain has increased, thus diminishing Sudan's ability to find sustainable, local solutions to its economic and developmental challenges. Furthermore, the war has completely halted investment in vital infrastructure. Sectors such as transportation, energy, and healthcare, to name just a few, have seen fragile roads and bridges destroyed by storms, rain, and floods that have swept across large parts of the country, disrupting domestic trade and isolating rural communities from local markets, thus reducing agricultural production to a level that ensures a decent standard of living, this sector forms the backbone of the Sudanese economy and, in particular, food security. Furthermore, the deterioration of the education system and health facilities, coupled with a shortage of human capital, limits the future prospects of coming generations. For Sudan to continue on the path of sustainable economic development, peace is the only viable solution. The longer its realization is delayed, the more the economic and social conditions worsen, and the higher the costs become. Therefore, national and international efforts aimed at peace and reconstruction must focus on comprehensive economic policies that promote diversification and modernization, adhere to the principles of balanced development and social justice, and establish a new system for managing, distributing, redistributing, and allocating resources equitably, investments in renewable energy, particularly solar power and biofuel production, can offer significant opportunities to accelerate sustainable post-war economic development. They are crucial in addressing energy shortages essential for production and productivity, while also creating important job opportunities. This is, of course, in addition to investment in infrastructure and the real production sectors and developing the competitiveness of the national private sector. Furthermore, rehabilitating the agricultural sector and encouraging small businesses will enhance food security and reduce poverty levels and dependence on imports. Overall, while the current war has imposed significant obstacles to the recovery of the Sudanese economy and has deteriorated the social fabric. The future of sustainable development lies in peace, good governance, and the strategic mobilization of its natural and human resources to enhance the ability to meet development challenges and sustain economic growth, noting that all proposed solutions are insufficient to achieve sustainable economic development in Sudan that guarantees stability and achieves the well-being of future generations, except through the option of peace, then peace.

### 2.1 Previous Studies

A study by (Mohammed, 2015) examined sustainable development programs at Sudan University of Science and Technology, their role, and the obstacles and challenges they face in achieving sustainable development in Sudan. The study sample consisted of deans, department heads, professors, and students from the colleges of Sudan University of Science and Technology. The study included a sample of 300 individuals from civil society, and the researcher employed a descriptive-analytical approach. The study concluded that the most prominent sustainable development programs at Sudan University of Science and Technology are: forestry science programs, educational programs, and applied research programs. The most important role of Sudan University of Science and Technology in achieving sustainable development is: Graduating qualified personnel in various disciplines, training teachers to work at different educational levels, and holding lectures and workshops for community members and students to promote family and community culture. The most significant obstacles to sustainable development in Sudan include limited financial resources, tribal conflicts and wars, and a lack of funding sources.

Hammad and Ali (2016) indicated that the study aimed to highlight the role of investment in economic development in Sudan in general and to identify the investment opportunities in Al Qadarif State in particular. The research followed a descriptive and analytical approach to verify the hypotheses. The study concluded that most investment in Al Qadarif State is agricultural, therefore, it is the investment that contributes most to economic development in the state of Al-Qadarif, as agricultural investment has contributed to increasing the cultivated area but has not contributed to increasing the productivity of agricultural crops. The study recommended simplifying investment procedures and upgrading infrastructure projects in Al Qadarif State. This is due to factors such as fluctuating rainfall and financing difficulties, which hinder small business owners from escaping poverty.

Mukhtar and Ali, 2019: highlighted the role of optimal use of natural and economic resources in sustainable development in Sudan. The topic of sustainable development is considered one of the important topics that preserves the rights of the current generation while taking into account the preservation of the rights of future generations. Therefore, it is necessary to use economic and environmental resources optimally. The study aimed to identify the extent of independence of natural and economic resources and to identify the concept of sustainable development. The study assumed that the unguided independence of natural and economic resources in Sudan led to environmental imbalance and economic deterioration, which contributed to the failure of development efforts in Sudan.

Mohammed and Mardas 2023: attempted to define the reality of research in Sudan and its role in achieving sustainable development, measured by GDP, while also clarifying the amount of spending on scientific research in Sudan. The study employed descriptive-analytical and quantitative methods, analysis of the available data revealed a direct correlation between scientific research and sustainable development, as measured by Sudan's GDP. A direct correlation was also found between GDP and Sudan's Human Development Index.

### 3. Sustainable Development

Sustainable development is a modern concept that aims to balance economic progress, environmental protection, and social justice. It seeks to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. This concept encompasses a range of the dimensions include: economic sustainability, which promotes sustainable economic growth; environmental sustainability, which is concerned with preserving natural resources and biodiversity; and social sustainability, which seeks to achieve equality and justice for all individuals (Ghoneim and Abuzait, 2007).

#### 3.1 The concept of sustainable development

Sustainable development is a modern concept that aims to achieve a balance between economic growth, social justice, and environmental protection; to ensure that the needs of the present generation are met without compromising the ability of future generations to meet their own needs. This concept is considered a cornerstone of global efforts aiming to build a better and more sustainable future, in the face of global challenges such as climate change, environmental degradation, and poverty, sustainable development stands out as a comprehensive approach that links human well-being with the preservation of natural resources (World Bank, 2003).

Sustainable development encompasses a variety of types or fields, reflecting a balance between economic, social, and environmental dimensions. Each type focuses on a specific aspect of sustainability and works to promote integration between these dimensions. The most important types of sustainable development are as follows (World Bank, 2003)

#### 3.2 Sustainable economic development

Sustainable economic development aims to promote economic growth in a way that preserves natural resources and supports the well-being of individuals and communities. Promoting sustainable industries includes developing industries that do not rely excessively on natural resources, it does not harm the environment, supports innovation and technology, adopts environmentally friendly technology that enhances efficiency, reduces waste and pollution, creates sustainable job opportunities and provides jobs that take into account the sustainability of resources, and improves the standard of living without harming the environment.

#### 3.3 Sustainable social development

It focuses on improving the quality of life and achieving social justice for all members of society. This includes: Social justice: promoting equality among individuals regardless of race, gender, or economic status, and providing opportunities equal for all, empowering local communities: supporting communities in managing their resources, achieving independence in making decisions that affect their lives and providing basic services: ensuring everyone has access to quality education, health care and decent housing.

#### 3.4 Sustainable environmental development

Sustainable environmental development seeks to protect the environment and preserve natural resources for future generations. It includes (World Bank, 2003): natural resource management: using natural resources wisely to minimize waste and ensure their sustainability; and protecting biodiversity Biological: Preserving animal and plant species and protecting them from extinction. Pollution reduction: Reducing pollutants resulting from human activities, such as air, water, and soil pollution.

#### 3.5 Sustainable Cultural Development

Focuses on preserving cultural heritage, promoting cultural diversity, and ensuring that culture is an integral part of the development process. This includes: Protecting cultural heritage: safeguarding historical monuments, languages, and traditional arts; and Promoting cultural identity: supporting cultural diversity and ensuring the free expression of cultures localism in the face of globalization and cultural education: integrating education about heritage and culture into school curricula to promote cultural awareness.

#### 3.6 Sustainable urban development

It focuses on developing cities and urban communities in a way that ensures their sustainability and the well-being of their inhabitants, and includes (World Bank, 2003): Urban planning: designing cities in a way that reduces congestion and pollution and promotes green spaces; Sustainable infrastructure: developing environmentally friendly infrastructure, for example: green

buildings, sustainable transport and waste management: improving methods of waste collection and treatment to reduce environmental impact.

### 3.6 Sustainable Development Goals

- a) Eradicating poverty: The goal is to eradicate poverty in all its forms everywhere, by improving livelihoods and providing support to the most vulnerable.
- b) End Hunger: Aims to end hunger, achieve food security, and promote sustainable agriculture to ensure sufficient food for all.
- c) Good Health and Well-being: Improves human health and well-being by ensuring access to essential healthcare and promoting healthy lifestyles.
- d) Quality Education: Providing inclusive and equitable education for all and promoting lifelong learning opportunities for personal and professional development.
- e) Gender Equality: Achieving gender equality and empowering all women and girls to have equal opportunities in all fields.
- h) Clean Water and Sanitation: Ensure access to clean water and sanitation for all, and promote sustainable water resource management.
- i) Clean and Affordable Energy: Provide affordable, modern, and clean energy for all, while promoting energy efficiency and the use of renewable energy sources.
- j) Decent Work and Economic Growth: Promoting sustainable and inclusive economic growth, fostering decent and productive work, and increasing employment opportunities.
- k) Industry, Innovation, and Infrastructure: Building robust infrastructure, promoting innovation, and achieving sustainable industrial development to drive economic growth.

### 3.7 The Importance of Sustainable Development

Humanity today faces enormous environmental, social, and economic challenges and pressures. Rapid population growth, pollution, climate change, dwindling natural resources, and the widening gap between rich and poor all represent serious challenges that threaten the sustainability and development of human societies.

Context: Sustainable development emerges as an urgent necessity to maintain the fragile balance between human needs and the planet's capacity for renewal and sustainability. Sustainable development is based on reconciling the economic, environmental, and social dimensions of development to meet the needs of current generations without compromising their own to safeguard the ability of future generations to meet their needs, a comprehensive approach is needed to achieve sustainable and balanced long-term development through the rational management of Earth's resources, reducing the environmental footprint of human activities, and working towards social justice. In this way, development becomes Sustainability is essential for ensuring the continuation of life on our planet and the development of human civilization. While the overarching goal of sustainable development is to balance human needs with the ability to sustain life, there are several diverse models and approaches to sustainable development that are appropriate for each. The different contexts of societies and countries give rise to various development models, including green development, blue development, and sustainable digital development. Green development is an integrated model that focuses on preserving the environment and natural resources, and reducing the environmental footprint of human activities. This includes the use of Renewable energy sources, organic farming development, promoting a circular economy, and encouraging environmentally friendly transportation; and blue development, which is a model that focuses on the sustainable use of marine and coastal resources through activities such as marine tourism, aquaculture, and renewable energy from the oceans. In contrast, sustainable digital development is a model that leverages technological advancements to achieve sustainable development goals. Digital technology and artificial intelligence can be employed in areas such as smart resource management, sustainable urban planning, and efficiency improvement in the energy, water, and transport sectors, digital development becomes an effective tool for achieving comprehensive sustainable development (Al-Hiti, 2008).

## 4. The impact of the 2023 war on sustainable economic development

The war in Sudan has had devastating effects on development, including a severe economic collapse, destruction of infrastructure, and an exacerbation of the humanitarian crisis. The war has disrupted key sectors such as agriculture and industry, increased poverty and unemployment, and disrupted basic services such as health and education, the war also affected regional stability and increased the complications for achieving any future development plans (Mohammed Noor, 2024).

### 4.1 The economic and social effects of the 2023 war

Economic collapse: represented by the following: economic losses exceeding 26 billion US dollars in November 2023, which represents more than half of the country's economy, a sharp economic contraction, and an exacerbation of poverty and unemployment.

Destruction of infrastructure: This included the destruction of essential facilities such as factories, hospitals, schools, and universities, affecting millions of children.

Closure of key sectors: This included the cessation of agricultural production, particularly in Gezira State, leading to increased food insecurity, the halt of industrial production, and the collapse of capital in many companies.

A humanitarian crisis: This was manifested in: the internal displacement of millions of people, which affected the availability of labor, exacerbated hunger, with more than 25 million Sudanese suffering from food insecurity and pushing half the population to the brink of collapse. Its impact on public services: It is represented by the disruption of 36 hospitals and the collapse of health services, and the destruction of 85% of public and private universities.

The effects on future development plans are as follows (Mohammed Nour, 2024): development projects were hindered, many international initiatives aimed at supporting the Sudanese economy were halted, and peace processes that aimed to improve the economic situation were disrupted.

The difficulty of recovery lies in: the flight of capital and the emigration of young people, which makes it difficult to quickly restore the development path, and in the halt in the flow of investments, which hinders reconstruction.

#### 4.2 The Impact of the 2023 War on Economic Development

Financial and Infrastructure Losses (Ahmed, 2025).

Total Losses: Economic losses exceeded \$200 billion by April 2024, with the destruction of more than 1,000 industrial and commercial facilities, including pharmaceutical and food factories.

The industrial sector lost 75-80% of its production units, while the agricultural sector was affected by 65%, and services by 70%.

GDP: The economy contracted by 18.3% in 2023, according to the IMF, with a further 12% decline projected for 2024. Currency Deterioration and Inflation

Exchange Rate: The value of the Sudanese pound plummeted from 560 pounds/dollar before the war to 1,800 pounds/dollar by May 2024.

Inflation: Reached 520%, causing the prices of basic commodities such as food and medicine to more than triple.

Exports and Government Revenue (Ahmed, 2025).

Exports: declined by 60%, especially in the gold sector, where production fell from 18 tons to 2 tons annually, causing the country to lose revenues estimated at \$2 billion.

Public revenues: decreased by 85% with the trade deficit reaching \$4.8 billion in the first quarter, 2024.

The impact of the 2023 war on the banking sector (Mohammed Nour, 2024).

Destruction of Banking Infrastructure

Destroyed Branches: 100 bank branches were looted or destroyed, particularly in Khartoum, Gezira, and Darfur states.

Financial Losses: 38% of bank funds in the capital, Khartoum, were looted, and banks lost more than \$20 billion in assets.

Liquidity and Confidence Crisis

Liquidity Shortage: The Central Bank of Sudan is suffering from a severe shortage of foreign currency, hindering its ability to support the economy.

Collapse of Confidence: 70% of bank branches have ceased operations in conflict zones, forcing citizens to rely on the informal cash system.

Social repercussions

Unemployment: rose to 40% due to the closure of financial institutions and major companies.

Reverse migration: 8.6 million people were internally displaced, impacting the availability of skilled labor.

The Impact of War on Sustainable Development

Food Security and Poverty (Ahmed, 2025):

Hunger: 25 million Sudanese (half the population) suffer from food insecurity, including 4.9 million on the brink of famine.

Poverty: The poverty rate has risen to 90%, with 85% of households no longer receiving a regular income.

Infrastructure and basic services

Health: 36 hospitals ceased operations, and the health sector suffered losses estimated at \$13 billion.

Education: 85% of public and private universities were destroyed, affecting the education of 14 million children.

Environment and Natural Resources

Agriculture: Cultivated areas have shrunk to 37% of arable land, particularly after the destruction of the Gezira Scheme.

Pollution: Environmental pollution has worsened due to the destruction of industrial facilities and the collapse of waste management (Ahmed, 2025).

## 5. Results

1. Widespread destruction of vital infrastructure, including roads, bridges, electricity grids, and water systems. This destruction has brought economic activity to a standstill in many areas.

2. The decline in GDP: Sudan was already suffering from an economic crisis before the war, but the conflict significantly exacerbated the situation. Estimates suggest that the war reduced the country's GDP by as much as 20-30%.

3. Inflation and the collapse of the local currency: With the continuation of the war, Sudan witnessed a significant rise in the inflation rate, potentially reaching 200-300%.

4. The cessation of exports and the decline in revenues: Sudan is a country rich in natural resources such as oil and gold, and its foreign currency reserves have declined sharply, leading to a liquidity crisis.

5. Displacement and unemployment: The war has led to the displacement of millions of Sudanese internally and externally, with many citizens losing their jobs or sources of income, whether due to the destruction of companies or the cessation of business activities.

6. Humanitarian Aid and its Impact on the Budget: Amid escalating crises, Sudan has become increasingly reliant on international humanitarian aid. However, the country suffers from insufficient funding to meet the basic needs of the war-affected population. Increased military spending has also led to a decline in investment in social services and infrastructure.

7. Regional trade was affected, and the influx of refugees increased pressure on the resources of these countries. The war also destabilized the region, making it more vulnerable to economic and political instability.

8. Disruption of peace and development processes: This has hindered peace processes aimed at improving the economic situation in Sudan. Many international initiatives intended to support the Sudanese economy have stalled due to the ongoing conflict.

#### 6. Recommendations

- 1.Reform the banking sector by restructuring central banks, injecting urgent liquidity, and activating the emergency circumstances system to renegotiate debts and contracts.
- 2.Promote sustainable development by launching emergency relief programs to combat famine, with support from the United Nations, and by rebuilding vital infrastructure, such as electricity and water networks.
- 3.Restore economic stability by implementing plans to stimulate exports, particularly in the gold and agriculture sectors, and by reforming the exchange rate through well-considered monetary policies.
- 4.Providing extensive international support for the reconstruction of vital infrastructure.
- 5.Reforming education with a focus on developing modern curricula and supporting scientific research and technology as drivers of development.
- 6.Developing the economy by implementing well-considered strategies for the sustainable use of these resources, while encouraging investment in agriculture, mining, and renewable energy.
- 7.Establishing independent courts to investigate past violations and restore the rights of victims without revenge or retaliation. Transitional justice is the cornerstone of building trust between the state and its citizens.
- 8.Empowering youth and women, involving them in decision-making processes, and ensuring they have opportunities to participate effectively in building the new Sudan.

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