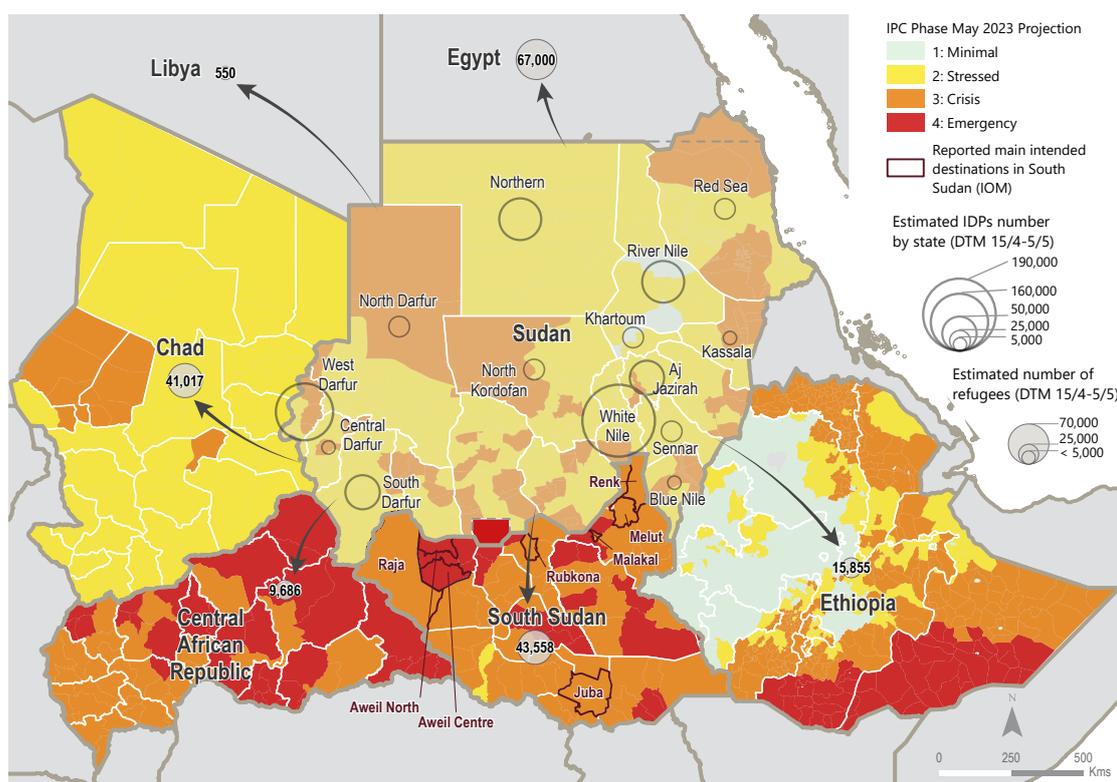


# Sudan Crisis: Pre-existing vulnerabilities and outlook in neighbouring countries

May 2023

## KEY MESSAGES

- Most countries receiving refugees and returnees fleeing the conflict in Sudan are among the most fragile countries in the world and will be at heightened vulnerability in the upcoming months due to the impact of the lean season and annual flood risks in combination with atypically high prices and persistent insecurity.
- Against a context of limited funding and operational constraints, the influx of additional population into camps and host communities might further escalate the humanitarian situation in affected communities as the capacity of host communities and aid actors to absorb additional strains is limited.
- With Sudan being a key exporter of sorghum and other items in the region, supply disruptions might further constrain financial access to food for communities in the upcoming lean season months.
- Overcrowding and limited access to adequate food and water, functional healthcare, and improved sanitation, as well as high levels of malnutrition and limited resources to share with incoming populations could increase risk of diseases and contribute to higher morbidity and mortality rates.
- To prevent large-scale loss of life in affected communities, close monitoring of risk factors and their impact on humanitarian needs in areas of displacement will be key to inform needs-based prioritisation and programming.



## CONTEXT & RATIONALE

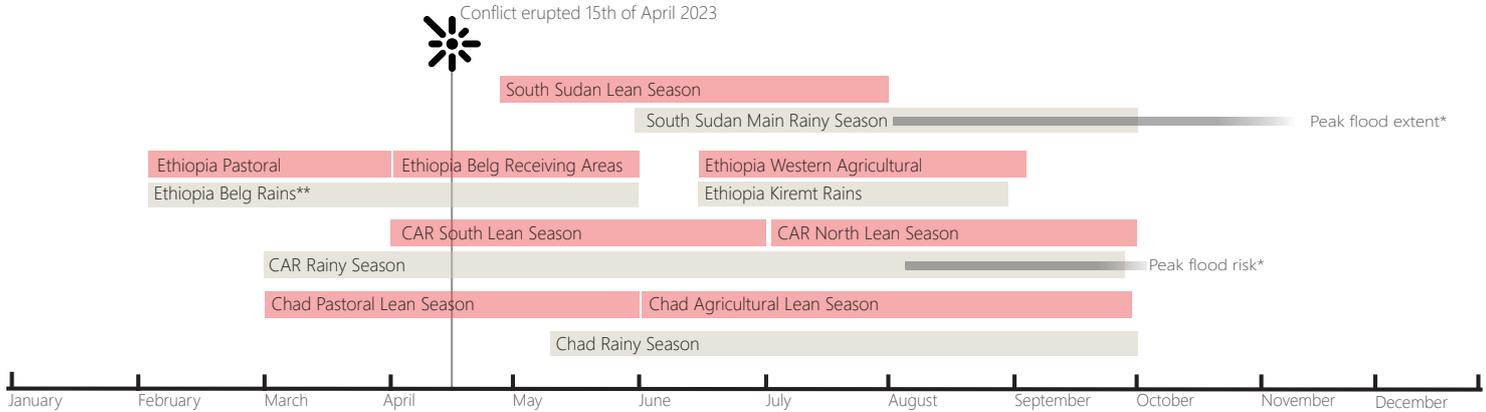
Clashes between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF) broke out on 15 April 2023, triggering waves of displacement, both internally as well as across the border into neighbouring countries. Some of these countries, particularly the Central African Republic (CAR), Chad, Ethiopia, and South Sudan, are amongst the most fragile countries in the world.

At a time of record-high humanitarian needs in the region following consecutive drought, macroeconomic decline, and a constant threat of conflict and insecurity, the influx of displaced population into an already highly vulnerable context could trigger a ripple effect that leads to increased risk of loss of life, particularly considering that many communities will be entering the lean season in the coming months.

To support prioritisation and contribute to forward-looking analysis in the face of the conflict in Sudan, this brief summarises the key pre-existing vulnerabilities and short- to medium-term risk factors in fragile neighbouring countries receiving displaced populations, based on an analysis of secondary data. As more granular data on displacement routes and intentions becomes available, additional analysis at the sub-national level is recommended to further contextualise risks and outlooks in affected areas.

REACH will be providing additional assessment and analysis on the Sudan crisis and its impact on neighbouring countries in the coming weeks. To stay up to date, please follow the [Sudan Crisis Thread](#).

Figure 1: Calendar of main seasonal shocks in the region (main source: FEWS NET). Seasonal shocks are location-specific - as more detailed information on movement intentions will become clear in the coming weeks, understanding seasonal shocks in sub-national areas of displacement will be an important factor to consider when planning the response.



\*While flooding could theoretically occur at other times of the year, risk of floods is highest during or right after the rainy season. In South Sudan, while annual precipitation usually peaks in August, water levels rise gradually and floodwaters usually reach their maximum extent in October. Similarly, in CAR, the rainy season starts early in the South, but the main risk of floods is reached towards the end of the season. More detailed flood risk data is unavailable at the national level for other monitored countries.

\*\*Belg rains in Belg-receiving areas concur partly with the Diraac/Sugum and Gu/Genna rains in Northern and Southern pastoral zones, respectively, both typically taking place between March and June.

Lean seasons  
Rainy seasons

## CENTRAL AFRICAN REPUBLIC

### 3.4 million

people are estimated to be in need of humanitarian assistance in 2023 (total population: 5,457,155 ([UNDP 2021](#)))

### 25%

response funding ([OCHA May 2023](#))

**Shocks and stressors:** Since conflict erupted in CAR in 2013, the population has been bearing the impacts of concurring armed violence and insecurity, deep poverty, economic shocks, including a sharp increase in fuel prices, and annual flooding. The crisis is characterised by large-scale internal displacement and year-on-year worsening food insecurity ([IPC November 2022](#)), against a background of limited access to critical services.

**Vulnerabilities:** With roughly 71% of the population living below the poverty line, the country faces deep poverty and severely eroded livelihoods after a decade of conflict ([UNDP 2022](#)). CAR ranks 188th out of 191 countries according to the Human Development Index (after Niger, Chad, and South Sudan), and has the 5th highest Multi-Dimensional Poverty Index ([World Bank October 2022](#)).

Access to key critical infrastructure is severely limited, with the proportion of the population relying on unimproved water sources or surface water being among the highest measured through the Multi-Sector Needs Assessment (MSNA) in 2022 (32% of households, [REACH 2022](#)). Moreover, the majority of the population (79%) relies on unimproved sanitation or resorts to open defecation, while access to equipped handwashing facilities is limited, increasing risk of disease contraction and transmission. Due to limited food intake and high childhood morbidity, 298,000 children 0-59 months are estimated to be acutely malnourished between October 2022 and August 2023 ([IPC January 2023](#)). Reflecting this, a recent mortality survey estimated the nationwide crude death rate (CDR) in 2022 to be above the World Health Organisation (WHO) Emergency threshold of 1 death per 10,000 per day, with most deaths being attributed to disease ([Gang et al. 2023](#)).

**Typical lean season:** April-September

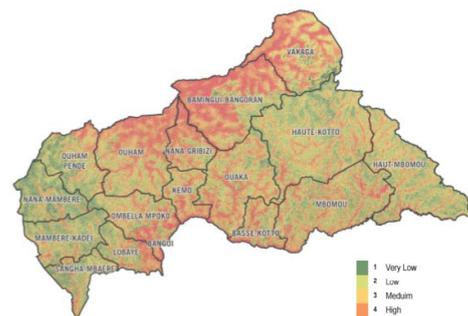
**Peak flood risk:** August-October

**Outlook:** Through September, higher fuel prices are expected to lead an atypical increase in food prices through the lean season while purchasing power will likely deteriorate, further limiting access to food and non-food items among households depending on markets ([FEWS NET February 2023](#)). This might also negatively affect households' ability to cover health expenses, which was already the most commonly reported shock experienced in the household during the 2022 MSNA. In flood-affected areas in the North (Vakaga, Ouham), food stocks are expected to run out early in May due to below-average production as a result of extensive flooding in 2022 (ibid).

With markets in this area being typically supplied by Sudan during the rainy season, prices will likely increase substantially beyond typical levels, which is already showing with prices of some staples (including sugar and millet) reportedly having doubled ([OCHA May 2023](#)). Key items might become unavailable altogether, depending on disruptions higher up the supply chain.

Particularly in flood-prone areas in the north, risk of vector and water-borne diseases might increase during the rainy season, while stocking and operating health and nutrition centers might become more challenging as access to such locations typically deteriorates.

Moreover, local elections scheduled for July and continued mercenary and armed group presence in some areas ([ACLED January 2023](#)), could increase levels of unrest and impede supply and humanitarian access to at-risk communities in the lean season ([FEWS NET February 2023](#)).



Map 2: Flood susceptibility ([REACH July 2020](#)), with red areas indicating a high risk of floods.



## CHAD

### 6.9 million

people are estimated to be in need of humanitarian assistance in 2023 (total population: 17,179,740 ([UNDP 2021](#)))

### 6%

response funding ([OCHA May 2023](#))

**Shocks and stressors:** Armed group violence and insecurity in Lake Chad and Nord regions and intercommunal conflict in other localities throughout the country ([ACLED April 2023](#)) drives large-scale internal displacement. Simultaneously, Chad has the highest concentration of refugees in the Sahel ([WFP February 2023](#)), most of whom are located in camps in the East ([UNHCR April 2023](#)).

Similar as to other countries on this watchlist, Chad has faced considerable macroeconomic shocks in the previous year, leading to price hikes for key food items and fuel prices, in turn affecting financial access to markets and negatively affecting income ([FEWS NET April 2023](#)). Seasonal, largescale flooding affects populations across the country, with the September 2022 floods having been particularly severe, having led to loss of life, significant damage to housing, livelihoods (loss of livestock and crops), and infrastructure, and forcing thousands of people into displacement ([ICRC October 2022](#)), with some remaining in displacement as of April 2023 ([OCHA May 2023](#)). Moreover, Lake Chad region is also hit by recurring drought and desertification, eroding traditional livelihoods ([UNCCD March 2023](#)).

**Vulnerabilities:** Years of recurring flooding, economic downturn, environmental degradation, insecurity, and chronic displacement have severely eroded the populations' resilience ([ICRC October 2022](#)). Chad is among the most fragile countries in the world, being ranked 190/191 in the Human Development Index – just before South Sudan (191) ([UNDP 2021](#)) – and having the 4th highest Multi-dimensional Poverty Index ([World Bank October 2022](#)). Access to basic needs and services is limited; it is estimated that only 62% of the population has access to clean drinking water and only 12% can access improved sanitation ([OCHA December 2022](#)). Most

households are reportedly only able to sustain minimal food intake through reliance on negative coping strategies and humanitarian assistance (the latter particularly in Lac) ([FEWS NET April 2023](#)). Moreover, as a result of poor quality of food intake due to poor infant and young child feeding practices, high prevalence of childhood morbidity, and limited access to improved water and sanitation, malnutrition is widespread, with an estimated 1.8 million children 6-59 being acutely malnourished in 2023 ([IPC February 2023](#)).

#### Lean season:

- Pastoral: April-June
- Agricultural: June-October

**Peak flood risk:** August-October

**Outlook:** Even prior to the onset of the conflict in Sudan, there were indications of a worse-than-usual lean season scenario in Chad, with cereal supply having been negatively affected by high transportation costs low production levels during the 2022-2023 rainy season due to unprecedented floods destroying livelihoods ([FEWS NET April 2023](#)). Increasing prices and limited income from labour will further increase market dependency among poor and displaced households at a time of limited purchasing power, in turn driving more people to adopt negative coping strategies and deprioritise spending on non-food items and services (*ibid.*). All the while, with many markets already being at reduced functionality, market access is expected to deteriorate further during the upcoming rainy season ([WFP February 2023](#)). Seasonal flooding towards the end of 2023 is expected to also further disrupt access to critical services, such as healthcare and nutrition centres and constrain humanitarian access to affected areas, while increasing risks of water and vector-borne diseases spreading.



## ETHIOPIA

# 28.6 million

people are estimated to be in need of humanitarian assistance in 2023 (total population: 120,283,026 ([UNDP 2021](#)))

# 22%

response funding ([OCHA May 2023](#))

**Shocks and stressors:** Ethiopia's South/Southeast has been the scene of a nearly three-year drought, which has severely disrupted pastoral livelihoods, exacerbating food insecurity and driving internal displacement ([FEWS NET March 2023](#)), while intense Belg rains since the beginning of March have also caused flooding and inundations in the Southeast ([Crop monitor for early warning, May 2023](#)). While the conflict situation has been relatively peaceful in the northern Tigray and Amhara regions in the first quarter of 2023 amid ongoing peace processes ([ACLED March 2023](#)), conflict and insecurity remains another threat to safety and wellbeing throughout the country, particularly in SNNP, Oromia, and Benishangul-Gumuz regions ([ACLED April 2023](#)), where insecurity also contributed to a failure of crop production and limited access to key services ([FEWS NET March 2023](#)), as well as displacement ([OCHA March 2023](#)). In addition, communicable diseases, such as the active Cholera outbreak in drought-affected Oromia and Somali regions, further undermine people's wellbeing ([WHO March 2023](#)).

Similar to the other countries, macro-economic conditions remain poor, with the highest food price inflation in a decade ([Trading Economics, April 2023](#)), and atypically high fuel prices further disrupting supply and driving up prices ([FEWS NET March 2023](#)).

**Vulnerabilities:** Due to the abovementioned compounding shocks, livelihoods and coping capacity have significantly eroded, particularly in drought and conflict-affected areas among households reliant on climate-sensitive livelihoods ([Crop monitor for early warning, May 2023](#)).

While updated data on WASH needs and practices among the Ethiopian population is scarce, it can be assumed that drought-

affected households struggle to access clean water as taps typically dry up during the dry season ([Save the Children February 2023](#)), leaving these households particularly vulnerable to contracting water-borne diseases such as Cholera and Acute Watery Diarrhoea (AWD) if they rely on unimproved water sources. High malnutrition rates and limited access to health infrastructure continue to drive risks of morbidity and loss of life in conflict and drought-affected areas ([OCHA November 2022](#)).

### Typical lean seasons:

- Western agricultural: Mid-June - September
- Belg-receiving: April-June
- Northern/Southern pastoral: February-April

**Peak flood risk:** June - September, risk of floods is highest during the Kiremt rains in Kiremt-receiving areas.

**Outlook:** While Belg crops are nearing reproductive stage for the June harvest, heavy precipitation and subsequent flooding has damaged croplands, particularly in Somali ([Crop Monitor for Early Warning May 2023](#)), and additional heavy rainfall and flooding can be expected in central and south-central Ethiopia (*Ibid.*), which might negatively impact the harvest. The forecasted return of El Nino later in 2023 is anticipated to further increase flood intensity ([CHACOF February 2023](#)).

High prices and fuel shortages ([WFP May 2023](#)), as well as ongoing conflict and the persistent threat of insecurity in various locations throughout the country ([ACLED April 2023](#)) are projected to continue to constrain supply chains and drive up food and non-food item prices; lower purchasing power among better-off households will likely further drive down income from among wage-dependent households ([FEWS NET March 2023](#)). Moreover, (protracted) drought and conflict-related displacement will likely continue to impede access to livelihoods and critical services, while insecurity and damaged roads could further constrain humanitarian access ([ACAPS April 2023](#)).



## SOUTH SUDAN

### 9.4 million

people are estimated to be in need of humanitarian assistance in 2023 (total population: 10,748,273 ([UNDP 2021](#)))

### 27%

response funding ([OCHA May 2023](#))

**Shocks and stressors:** The population of South Sudan has faced compounding stressors due to years of conflict and persistent insecurity, recurrent large-scale flooding and subsequent displacement, frequent disease outbreaks ([WHO 2023](#)) and economic shocks, including a sharp currency depreciation, year-on-year high inflation, price volatility, and increases in key food and non-food item prices ([FEWS Price Bulletin April 2023](#); [Trading Economics April 2023](#)).

**Vulnerabilities:** 91.9% of the population is estimated to be multidimensionally poor ([World Bank 2022](#)), placing South Sudan as the 2nd worst-performing country in the world in the Multi-Dimensional Poverty Index (MDPI), following Niger. South Sudan is also the lowest-ranked country on the Human Development Index ([UNDP 2021](#)). After years of consecutive and concurring shocks, with limited time to recuperate in-between, livelihoods and coping capacity have severely eroded ([IPC November 2022](#)). Moreover, access to basic services, such as healthcare, remains limited, with an acute shortage of health workers and inadequate infrastructure being a main concern ([OCHA November 2022](#)).

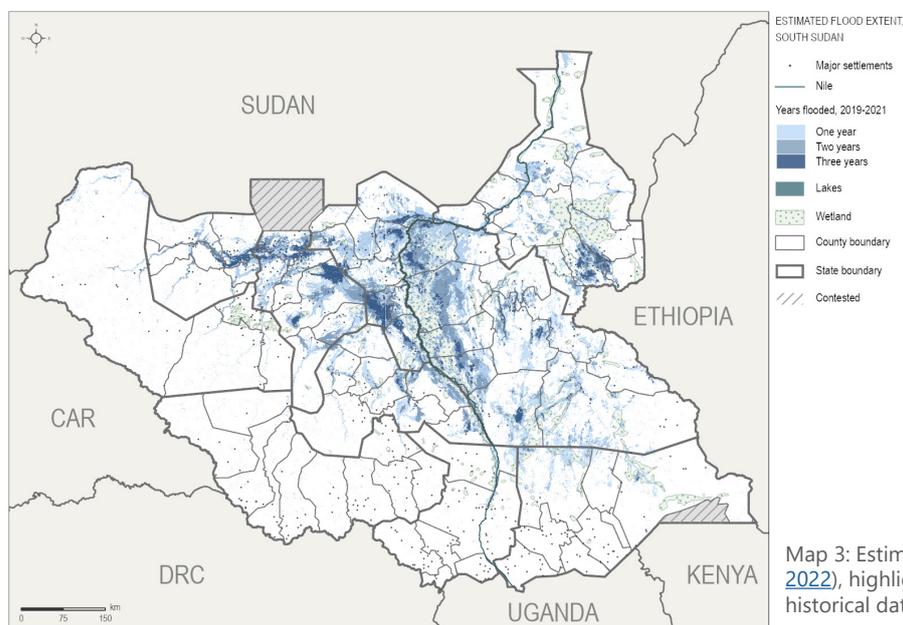
Close to one third of the population is estimated to rely on unimproved water sources, while 43% of host communities reportedly practice open defecation, leaving them particularly vulnerable to waterborne disease (ibid.) Due to high morbidity and limited food consumption, 1.4 million children 6-59 months are estimated to be acutely malnourished between June 2022 and July 2023 ([IPC November 2022](#)).

**Typical lean season:** April-August

**Peak flood risk:** Rain peaks in August, after which water rises gradually with floodwaters reaching maximum extent between October-December, particularly in Greater Upper Nile Region ([Crisis Group 2023](#)).

**Outlook:** Entering the lean season, needs are expected to further increase particularly in locations with chronic vulnerabilities worst affected by climatic shocks and/or conflict ([IPC November 2022](#)). Increasing dependency on markets amid high and volatile prices might further reduce households' ability to spend money on essential (non-)food items and services, leaving worse off households who are unable to bridge expenditure gaps to engage in (emergency) coping strategies. Considering that Sudan is a main exporter of sorghum to markets in northern counties ([Trading Economics May 2023](#)), seasonal price increases could be stronger than usual due to border restrictions or other supply disruptions within Sudan.

WASH and health needs are projected to worsen particularly in flood-affected areas in the second half of 2023 due to damaged infrastructure and limited humanitarian access ([OCHA November 2022](#)), while risk of vector and water-borne diseases typically increases towards the end of the rainy season in the context of sitting floodwater and damaged WASH infrastructure ([WHO January 2023](#)).



Map 3: Estimated flood extent, South Sudan 2019-2021 ([REACH October 2022](#)), highlighting the main areas that are prone to flooding based on historical data.

## CONCLUSION

Clashes between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF) broke out on 15 April 2023, triggering waves of displacement, both internally as well as across the border into neighbouring countries.

**Most countries receiving refugees and returnees fleeing the conflict in Sudan are among the most fragile countries in the world across multiple indices.** Following widespread shocks and compounding stressors experienced over 2022, including devastating floods in Chad, CAR, and South Sudan and a record-breaking drought in Ethiopia (among others), needs in the monitored countries were already at unprecedented levels prior to the eruption of conflict in Sudan.

**In the coming months, these countries will also be at heightened vulnerability** due to the impact of the lean season and annual flood risks in combination with atypically high prices and persistent insecurity.

**Against a context of limited funding and operational constraints, the influx of additional population** into camps, informal settlements, and host communities, as well as **a projected further spike in prices** following trade and supply disruptions from Sudan, **might further escalate the humanitarian situation in affected communities.**

**Overcrowding and a lack of access to adequate food and water, functional healthcare, and improved sanitation,** as well as high levels of **malnutrition** and **limited resources to share** with incoming populations **could increase risk of diseases and contribute to higher morbidity and mortality rates.**

To prevent large-scale loss of life in affected communities, **close monitoring of these risk factors and their impact on humanitarian needs** in areas of displacement **will be key to inform needs-based prioritisation and programming.**

## ABOUT REACH

REACH Initiative facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. The methodologies used by REACH include primary data collection and in-depth analysis, and all activities are conducted through inter-agency aid coordination mechanisms. REACH is a joint initiative of IMPACT Initiatives, ACTED and the United Nations Institute for Training and Research - Operational Satellite Applications Programme (UNITAR-UNOSAT).