

SUDAN

Floods



KEY PRIORITIES

278,500

AFFECTED PEOPLE

58,600

DAMAGED OR
DESTROYED HOUSES

HIGH RISK

OF DISEASE OUTBREAK

NATIONAL RESPONSE CAPACITY

- Sudanese Red Cross
- Sudanese Civil Forces

INTERNATIONAL RESPONSE CAPACITY

- UNICEF
- WHO
- Save the Children
- Relief International

CRISIS IMPACT OVERVIEW

- Since the rainy season started in June, heavy rains have been causing flash floods across Sudan (OCHA accessed 04/09/2022; AA 20/08/2022). As at 20 August, the cumulative rainfall was over 100% higher than the long-term average in central, western, and eastern Sudan (FEWS NET 30/08/2022). The floods have affected 16 of the 18 states in the country. The most affected states are Central Darfur, Gedaref, Kassala, River Nile, South Darfur, West Darfur, and White Nile (Sudan Tribune 27/08/2022; OCHA 28/08/2022). The floods have also affected Blue Nile state, but there is no information about the extent of the damage in this area (OCHA 23/08/2022).
- As at 5 September, the floods had killed more than 100 people, affected more than 278,500 people across the country, and totally or partially damaged over 58,600 houses (OCHA 05/09/2022; OCHA accessed 06/09/2022). Flooding had also damaged nearly 1,100 health facilities (of which 40 had been totally destroyed), over 650 water sources, and 4,800 latrines. More than 2,000 livestock had perished, and over 12,000 hectares of agricultural land had been destroyed (OCHA 06/09/2022). As at 29 August, 136,000 people had been displaced from the flood-affected states (Al-Monitor 29/08/2022).
- On 21 August, the Sudanese Government announced a state of emergency in Aj Jazira, Kassala, River Nile, South Darfur, West Kordofan, and White Nile states because of the floods (Crisis24 21/08/2022; Independent Arabia 26/08/2022).
- The risk of flash floods is expected to persist between 6–13 September, with the likelihood of rainfall in eastern Sudan being heavy to very heavy, and weather conditions in the southern and central parts of Sudan are expected to be wetter than average (ICPAC accessed 06/09/2022).
- As at 1 September, water remained above critical levels in Ed Deim and Shandi water stations in River Nile state and above flooding levels in Atbara water station (River Nile state) and Khartoum water station (Khartoum state), both along the Nile River (OCHA 06/09/2022; Sudan Akhbar 30/08/2022). Local authorities are asking people living in these areas to remain vigilant (Independent Arabia 26/08/2022; BBC 23/08/2022).
- Floods have damaged main roads and restricted access to the affected population in Aj Jazira, Blue Nile, Central Darfur, River Nile, and White Nile states, with more than 100 villages cut off as at 25 August (OCHA 23/08/2022; ABC News 25/08/2022). The affected roads include the main road connecting River Nile state and Khartoum (Al Jazeera 12/08/2022). The Sudanese army is airlifting assistance to Aj Jazira (BBC 23/08/2022).

ANTICIPATED SCOPE AND SCALE

- The risk of further flooding remains high, as the Sudanese rainy season typically lasts through September, with rainfall peaking in August–September (OCHA 28/08/2022). In 2021, floods affected more than 226,000 people in September alone, representing about 70% of the total number of flood-affected people that year (OCHA 29/09/2021; OCHA 02/09/2021).
- Pre-existing poverty and eroded coping capacity are likely to increase the time people need to rebuild their houses (Dabanga 01/07/2022). They are likely to remain in emergency shelter for several months to come. The situation will also affect education, as many schools are hosting displaced people (BBC 23/08/2022).

HUMANITARIAN CONSTRAINTS

- New bureaucratic hurdles for humanitarian organisations introduced after the coup in February 2021 often delay the issuance of travel permits within Sudan. The additional requirements include providing details before travel of the exact location and date of assessments. This constraint delays access to the affected population and the overall response (OCHA 23/08/2022; OCHA 02/2022). The Sudanese Government has also increased the fees required of humanitarian organisations for these permits (OCHA 02/2022).

SECTORAL NEEDS

Health

The floods have damaged at least 500 health facilities in the affected states and inundated main roads, blocking people's access to health services (BBC 23/08/2022; UNICEF 29/08/2022; OCHA 28/08/2022; France 24 22/08/2022). The majority of damaged and destroyed health facilities are in Aj Jazira, Central Darfur, and South Darfur states (OCHA 05/09/2022). Flood-affected areas experience shortages in medical professionals because of a high turnover among staff, as well as a shortage in medical supplies, including cholera kits (OCHA 23/08/2022; Alquds Alarabi 27/08/2022). The flood-affected population is in need of medical assistance, including serum for scorpion bites and first aid kits amid the slow government response (Al Jazeera 12/08/2022; Alquds Alarabi 27/08/2022).

The floods are likely to increase waterborne infections (UNICEF 24/08/2022). Stagnant floodwater acts as a breeding environment for mosquitoes, increasing the risk of waterborne disease outbreaks, including cholera and acute watery diarrhoea outbreaks (Al-Monitor 29/08/2022; Al Jazeera 01/09/2022).

Access to health facilities is limited in Sudan, and floods are likely to add further constraints. Before the current floods, more than 80% of the Sudanese population had to walk more than two hours to access the closest health facility.

A lack of professional medical staff is also affecting access to health services. In Sudan, the physician-to-patient ratio is 0.26 to 1,000, while the world average is 1.8 to 1,000 (OCHA 02/12/2021; WB accessed 04/09/2022). The economic crisis has been affecting the delivery of health services since 2017. Currency depreciation has caused shortages of medical supplies and is affecting the delivery of medical services (OCHA 02/12/2021).

Shelter and NFI

The floods have displaced over 136,000 people, destroyed nearly 16,400 houses, and damaged over 42,200 others (Al-Monitor 29/08/2022; OCHA 06/09/2022). Nearly 75% of the damaged houses are in Aj Jazira, Central Darfur, East Darfur, Gedaref, Kassala, and Khartoum states (OCHA 05/09/2022). Displaced people are taking shelter in schools, stadiums, makeshift shelters, and in the open air. The affected population is in need of tents and mosquito nets (BBC 23/08/2022; Alquds Alarabi 27/08/2022; MEMO 24/08/2022).

Damage to houses per state

STATE	NO. OF TOTALLY OR PARTIALLY DAMAGED HOUSES
Al Jazirah	1743
Central Darfur	9037
East Darfur	730
Gedaref	11787
Kassala	5178
Khartoum	259
North Darfur	137
North Kordofan	1193
Northern	3604
River Nile	3313
Sennar	1075
South Darfur	6133
South Kordofan	1149
West Darfur	5187
West Kordofan	1206
White Nile	6870

Source: OCHA (05/09/2022)

Food security

Before the current floods, around 11.7 million people in Sudan (over 25% of the population) were facing high levels of food insecurity. High food prices, poor harvest, and violence drive food insecurity in the country. Floods are likely to increase food insecurity levels, as they have damaged 12,000 hectares of agricultural land across the affected states (IPC 21/06/2022). The damage will compromise harvest and increase food insecurity for the affected population over the next few months (FEWS NET 30/08/2022; OCHA 06/09/2022).

Floodwater is disrupting food supply chains and has damaged shops and bakeries, reducing people's access to food. The affected population is in need of food assistance (BBC 23/08/2022; Al Jazeera 12/08/2022).

WASH

The floods have damaged 650 water sources and over 4,800 latrines in the affected states (OCHA 06/09/2022). Sewage water has also contaminated lean drinking water sources (France 24 22/08/2022). The affected population is in need of hygiene kits, latrines, and clean drinking water (Al-Monitor 29/08/2022; Al Jazeera 12/08/2022). A lack of clean drinking water has led people in White Nile state to resort to drinking water from unsafe sources, increasing health risks (OCHA 23/08/2022).

The floods are likely to increase cases of vectorborne diseases, as stagnant floodwater acts as a breeding environment for mosquitoes (UNICEF 24/08/2022). Flooding also increases the risk of waterborne disease outbreaks, including cholera and acute watery diarrhoea outbreaks (Al-Monitor 29/08/2022; Al Jazeera 01/09/2022). A lack of access to WASH facilities reduces people's ability to practice hygiene and contributes to increasing infections (Al-Monitor 29/08/2022).

Education

The floods have affected around 45,000 schools (OCHA 23/08/2022). Local authorities are using schools as temporary shelters to host flood-displaced people (BBC 23/08/2022). This setup is delaying the beginning of the school year set in September (UNICEF 29/08/2022).

The prevalence of acute food insecurity in flood-affected states as projected for September

STATE	PERCENTAGE OF THE POPULATION EXPERIENCING CRISIS (IPC PHASE 3) FOOD INSECURITY OR WORSE
West Darfur	42%
North Darfur	36%
Central Darfur	34%
North Kordofan	31%
South Kordofan	31%
East Darfur	27%
Gedaref	27%
Kassala	27%
West Kordofan	25%
South Darfur	22%
White Nile	22%
Sennar	20%
Khartoum	19%
Aj Jazira	16%
Northern	15%
River Nile	13%

Source: IPC (21/06/2022)

AGGRAVATING FACTORS

Climate change

Since 2019, Sudan has seen an increase in the intensity and frequency of floods (OCHA 02/12/2022). Sudan is currently experiencing its fourth consecutive year of extensive flooding (ESI Africa 30/08/2022).

In 2021, annual seasonal floods affected around 915,000 people (2% of the population) in the country. Floods damaged houses, public facilities (including health centres and schools), and agricultural lands. Flooding also displaced people, disrupted their livelihoods, and reduced their ability to deal with future shocks (OCHA 02/12/2021).

Economic crisis

The prices of essential commodities, including staple foods and transportation, are up by around 125% compared to the July 2021 value and around 12% compared to the July 2022 value. As at September 2022, the value of the local currency had dropped by 28% from the value in January 2022 (CBOS accessed 05/09/2022). The currency depreciation is driving consumer prices up and causing shortages in medicine and fuel supplies (FEWS NET 30/08/2022).

Around half of the population in Sudan lives in poverty. The economic crisis is increasing the vulnerability of poor people to floods and eroding their coping capacity (Dabanga 01/07/2022; OCHA 02/12/2022). Damage to agricultural lands also affects people's livelihoods, as over 40% of the population depends on agriculture as their main source of income (Alquds Alarabi 27/08/2022; Gov't of Sudan et al. 01/06/2022).

Desert locust

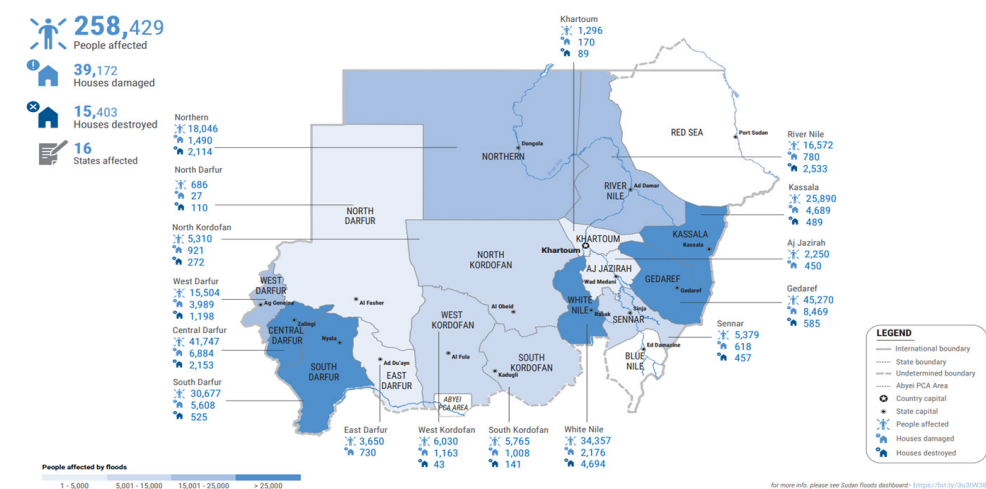
Heavy rainfall creates a favourable environment for desert locust to breed. Once floodwater recedes, wet, warm, and sandy soil provides the optimal setting for laying locust eggs (Landscape News 10/03/2021; FAO 11/08/2022; FAO accessed 06/09/2022). A swarm of locusts covering a square kilometre can eat 80–160 tons of crops per day (Dabanga 09/05/2022). A desert locust infestation has the potential of significantly damaging crops. Coupled with the flood damaging agricultural lands, an infestation is likely to worsen food insecurity by decreasing agricultural produce and increasing food prices, making food unaffordable to poor people in Sudan.

In August, low-density immature and mature adult groups of desert locust were seen in River Nile state, while mature solitaries of desert locust were seen in Kassala, White Nile, and western and eastern Khartoum states. As of then of August, the low density of desert locusts does not pose a threat to the crops in Sudan (FEWS NET 30/08/2022).

Intercommunal violence

Intercommunal violence has been affecting Blue Nile state since early July 2022 (IOM 22/07/2022). People recently displaced by intercommunal violence into the flood-affected states of Aj Jazira, Sennar, and White Nile states are likely to experience difficulties finding shelter (OCHA 07/08/2022). The situation will also increase the demand for WASH, health, and food assistance. The response of the Government has been weak and insufficient (Al Jazeera 12/08/2022; Alquds Alarabi 27/08/2022).

Impact of the flooding in Sudan at 31 August



Source: OCHA (31/08/2022)