

Sudan

Floods in El Nuhud, West Kordofan

Heavy rainfall from 23–25 July caused flooding in El Nuhud town, West Kordofan state. An inter-agency rapid assessment concluded on 2 August estimated that more than 23,000 people had been affected in El Nuhud alone. Shelters and WASH infrastructure have been significantly damaged. The ongoing humanitarian response has been insufficient to meet the needs in El Nuhud. At 13 August, at least 4,000 people are reported to remain in need of humanitarian assistance, particularly emergency shelter and WASH assistance. Other areas are affected but beyond the scope of this note.

IMPACT



NEED FOR INTERNATIONAL ASSISTANCE



Flood affected areas and populations in Sudan

State	Affected households	Affected people
Flood affected population in El Nuhud town as of 2 August		
El Nuhud, West Kordofan	+4,000	+23,000
Other flood affected states in Sudan as of 31 July		
Kassala	3,500	17,500
El Gezira	461	2,305
Sennar	405	2,025
Northern	775	3,875

Source: (IFRC 13/08/2018; Inter Agency RNA 2/08/2018).

Anticipated scope and scale

Sudan's rainy season runs from June until October. Rainfall is projected to continue at >50mm per week across southeastern Sudan. More rain coupled with soil saturation is likely to lead to **further flooding**. It is estimated some 200,000 people will be affected by flooding during the current rainy season across Sudan. Pooled water is likely to increase mosquito breeding grounds and **increase health risks**. The risk of waterborne disease outbreak is more likely following the destruction of WASH facilities and limited supply of clean drinking water.

Key priorities



+4'000 homes
damaged or destroyed

+2'530 latrines
destroyed

Humanitarian constraints



Blocked roads, broken bridges and inaccessibility due to flood waters have been observed in West Kordofan, although some

Limitations

Flooding also affected Kassala, El Gezira, Sennar, and Northern states in July as well as other areas of Kordofan and Darfur in August. This briefing note focuses on El Nuhud only. An assessment has been carried out in El Nuhud town but is not available online – this report draws on that assessment and other sources. Reports mix the terms damaged and destroyed inconsistently, which creates uncertainty around the severity of the flood impact. Place names are often spelled differently.

Crisis impact

Heavy rainfall from 23–25 July caused flooding in West Kordofan state. El Nuhud was significantly affected. Initial assessments by the local Red Crescent found approximately 20,000 people affected in El Nuhud locality, with significant shelter and WASH damage and destruction (IFRC 13/08/2018). An inter-agency rapid assessment in El Nuhud town concluded on 2 August reported over 23,000 people had been affected (Inter Agency RNA 2/08/2018). Other areas of Sudan have also been affected but are beyond the scope of this note (see reference map, back page).

The response to flooding in El Nuhud town has reportedly been insufficient to meet the needs. At least 4,000 people remain in need of humanitarian assistance as of 13 August and reports of inadequate shelter and WASH facilities continue (Radio Dabanga 13/08/2018 IFRC 13/08/2018 Radio Tamazuj 31/07/2018).

Shelter and NFIs: Emergency shelter and NFIs have been identified as priority needs in El Nuhud town. Over 2,500 houses were completely destroyed and over 1,500 have been partially damaged (IFRC 13/08/2018, Inter Agency RNA 2/08/2018). On 27 July hundreds of families were sheltering in the open due to destroyed housing and by 13 August reports of residents without any shelter continued to emerge. (Radio Dabanga 27/07/2018, Radio Dabanga 13/08/2018) Inter-agency needs assessments found shelter among the major response gaps (Inter Agency RNA 2/08/2018). According to the Sudanese Red Crescent, requirements for NFIs such as tarpaulins, blankets, and jerry cans have still not been completely met as of 13 August, despite some distributions in El Nuhud town. (IFRC 13/08/2018).

WASH: The flooding has caused two out of six local boreholes in El Nuhud to become unusable. Drinking water pipelines are reported damaged and water sources contaminated, though the extent of damage is unclear (IFRC 13/08/2018 Inter Agency RNA 2/08/2018). Poor water supply is an underlying problem in West Kordofan state, where communities across the state have often relied on water trucking to meet demand, and successive water system breakdowns have substantially reduced water access (HNO 13/03/2018). A common coping mechanism has been to store drinking water or purchase it from vendors, but water and storage supplies have been lost in the floods.

Some 2,538 household latrines have been destroyed in El Nuhud. Open defecation is being practiced in and around collapsed shelter sites, creating high risks of waterborne diseases (Inter Agency RNA 2/08/2018). Other communal latrines, including four located within schools in El Nuhud, have reportedly collapsed. Public health officials have been unable to disinfect these damaged latrines due to lack of technical capacity and funding (Inter Agency RNA 2/08/2018).

Health: Six deaths and 49 injuries are reported in West Kordofan (IFRC 13/08/2018). A high malaria caseload is reported due to the increased prevalence of mosquito breeding around stagnant floodwater (Inter Agency RNA 2/08/2018).

Food: Both food and cooking fuel are identified as important needs. Local food distribution has taken place in El Nuhud; however, it is uncertain how long the current food supplies of the most affected families will last (IFRC 13/08/2018 Inter Agency RNA 2/08/2018).

The floods damaged local farms and killed up to 121 livestock (IFRC 13/08/2018). Negative impacts to livelihoods in El Nuhud and across West Kordofan are likely to worsen food security outcomes in the area, which is classified as being in IPC Phase 2 (Stressed) food insecurity.

Education: Between 13 and 17 schools were affected by flooding. Fifteen schools are heavily damaged (IFRC 13/08/2018 Inter Agency RNA 2/08/2018). Some 500 students are reported to have dropped out of school after the floods.

Impact on critical infrastructure

Power outages have been reported in El Nuhud due to collapsing power lines. The local market has been disrupted and local shops have been damaged and closed. Hospitals are among the facilities reported to be inaccessible, though further information on the exact constraints is required (IFRC 13/08/2018).

Vulnerable groups affected

The ongoing conflict in South Sudan, which borders West Kordofan is a source of population movements into the area, and the displaced population are likely to face specific vulnerabilities. Between January and June, 9,355 South Sudanese refugees were monitored crossing the border into Abyei PCA area, south of West Kordofan (IOM 26/07/2018).

It has previously been noted that accessing South Sudanese refugees in West Kordofan is often difficult (HNO 13/03/2018). South Sudanese refugees in the area are at risk of suffering from secondary displacement as well as facing tensions within host communities in West Kordofan due to competition for limited resources. An estimated 700 refugee families are reported to habitually reside in El Nuhud town. Of this population, 292 houses belonging to refugees have been destroyed (Inter Agency RNA 2/08/2018). Refugees are likely to face depleted coping mechanisms and may lack social and family support compared to host communities.

Humanitarian and operational constraints

Though some initial reports of road blockages and collapsed bridges were expected to restrict access to El Nuhud, the road from Khartoum is now reported to be clear and El Nuhud is accessible (IFRC 13/08/2018, Inter Agency RNA 2/08/2018).

Aggravating factors

Rainy season

Sudan's rainy season runs from June until October. In 2018 the rainy season began in July but the late rains were strong and caused flash floods in West Kordofan and other states bordering South Sudan or Ethiopia. A forecasted rainfall of >50mm per week across southeastern Sudan in combination with current levels of soil saturation is likely to create further flooding throughout the season (FEWS NET 31/07/2018 FEWS NET 13/08/2018)

Food Insecurity and livelihoods

Crop losses and the damage to livestock and agriculture will doubly impact poor households, who are likely to have already reduced the amount of crops planted this year due to the high costs of agricultural inputs, such as pesticide and fertiliser, as well as fuel shortages (FEWS NET 13/08/2018).

Crop losses and livestock destruction may worsen the food security situation in West Kordofan, which is currently projected to be between IPC phase 1 (Minimal) and IPC phase 2 (Stressed) across the state (FEWS NET 30/04/2018).

The floods are occurring at a time when the prices of millet, sorghum and other staple foods are well above the two-year average for this time of year, including in key markets in Kordofan: El Obeid and Kadugli. (FEWS NET 02/08/2018).

Disease outbreaks

The threat posed by an outbreak of suspected cholera, which has affected nearby areas, and other waterborne diseases is significant given WASH infrastructure has been damaged; additionally, several health facilities are inaccessible due to the flooding (IFRC 13/08/2018). Cholera cases are difficult to verify and respond: the government of Sudan only reports on cases of acute watery diarrhoea, and the scope of the WHO to assess suspected cholera cases is limited (Radio Dabanga 03/05/2018).

New cases of acute watery diarrhoea cases suspected to be cholera were reported in Abu Zayad (southeast of El Nuhud) in West Kordofan on 25 July (Radio Dabanga 25/07/2018),

and a suspected cholera outbreak was reported in El Nuhud in 2017 (Radio Dabanga 09/08/2017). Although the outbreak is not directly linked to the current flooding, the proximity to flood affected areas poses a risk.

Stagnant water also poses a risk of increased mosquitos in El Nuhud and potential increase in dengue fever and malaria. An increase in the caseload of dengue fever and suspected cholera was reported in other states of Sudan after heavy rains in June (Dabanga Radio 03/06/2018). Malaria and dengue fever are common across Sudan (IFRC 13/08/2018 Inter Agency RNA 2/08/2018).

Location and type of housing/infrastructure

Houses in El Nuhud tend to be built from a mud and stone (or brick) combination. These materials make them susceptible to heavy damage during strong rains and floods (Inter Agency RNA 2/08/2018).

Response capacity

Local and national response capacity

Sudanese authorities at a national and state level are responsible for the overall coordination of the response effort. The Humanitarian Aid Commission re-established the Flood Task Force in late June following forecasts of heavy rain (USAID 14/08/2018). The national civil defence council are in the process of distributing food and NFIs (IFRC 13/08/2018). The Sudanese Red Crescent has been active in El Nuhud and other flood affected areas.

International response capacity

A number of INGOs had pre-positioned supplies for WASH and child illness-related issues in flood affected states in Sudan, including West Kordofan (IFRC 13/08/2018 UNICEF 30/06/2018). An interagency needs assessment was conducted in El Nuhud, where distribution is ongoing.

Information gaps and needs

There is a lack of demographic breakdown of the affected population. Information about specific vulnerabilities is limited.

It is not yet clear what the wider effects of the floods are across West Kordofan and other states, and whether other towns in addition to El Nuhud are as severely affected.

Lessons learned

Flooding occurs on a cyclical basis in Sudan. In July and August 2017 heavy rains and flash flooding affected over 70,500 people in Sudan. West Kordofan was affected with 1,680 houses destroyed and 1,020 partially damaged. Around 128 latrines were also damaged, affecting 2,700 households in total. Although the impact in West Kordofan in 2017 was smaller than in 2018, similar issues related to the risk of waterborne diseases and housing damage were reported (IFRC 26/07/2018). Though some lessons learnt from the previous flood have been implemented by authorities and local partners, such as the pre-positioning of WASH supplies, similar issues continue to hamper the response.

The challenge of improving shelter resilience is an issue that reappears with each flood cycle. Improved structural integrity and building materials that are less susceptible to flood damage are required to limit the impact of flooding on shelter.

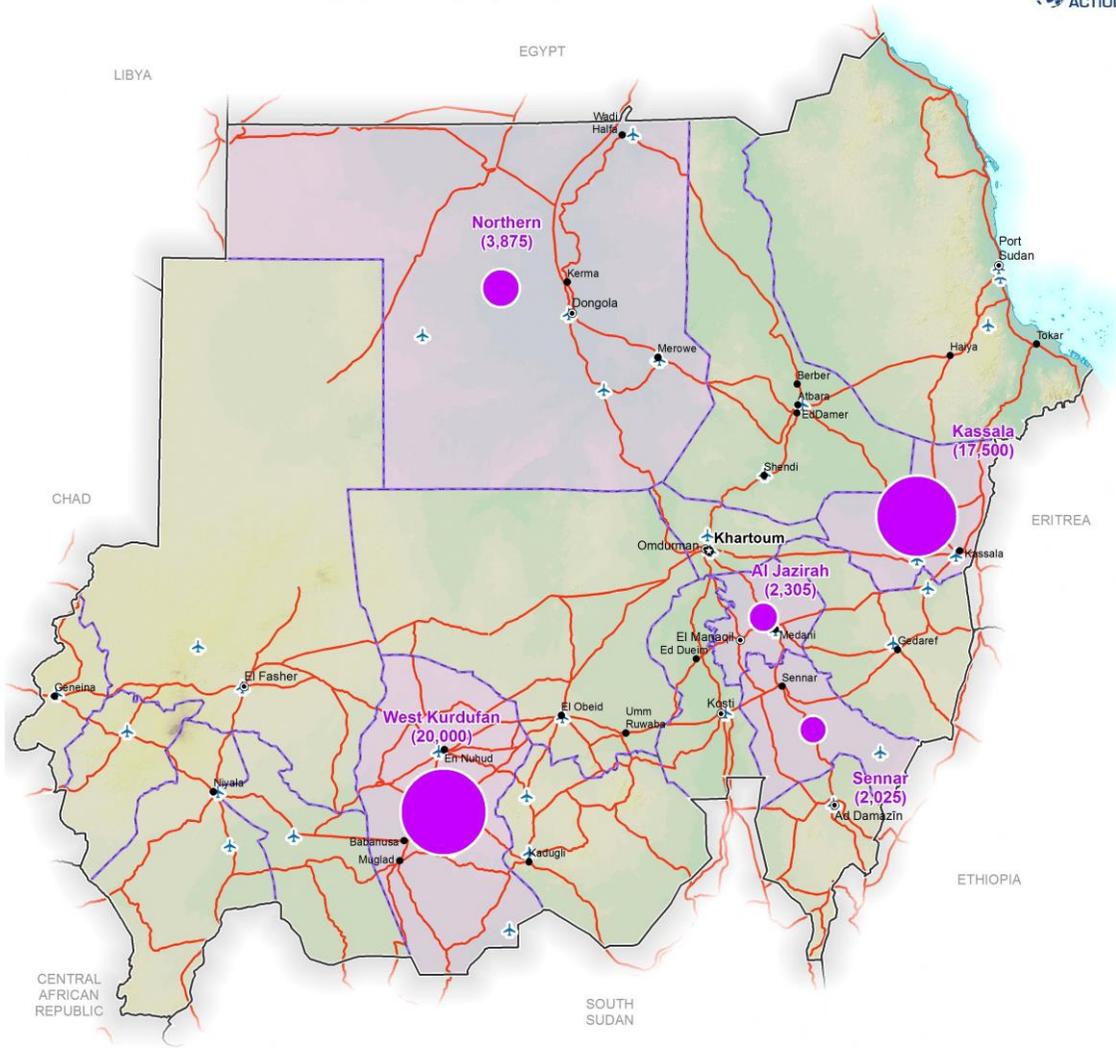
In 2017 INGOs distributed materials for latrines to affected populations with a focus on camps, however the current humanitarian needs indicate latrine materials are needed in the urban, out of camp environments as well (IFRC 26/07/2018).

Key characteristics of Sudan

- **Population of Sudan:** 40.8 Million (HNO 2018)
- **Food security figures:** Between 2.5 million and 4.9 million people are projected to be in IPC Phase 3 (Crisis) in Sudan and above between April and September 2018 (FEWS NET July 2018)
- **Nutrition levels:** GAM Caseload 2.47 Million (HNO 2018) SAM Caseload 694,000 (HNO 2018)
- **WASH statistics:** 4.9 million people across Sudan do not have access to adequate drinking water and safe access to latrines.

Map

Sudan: Flood affected areas and populations (July 2018)



Affected population	Settlements	Border	Transport
10,000			



Data Sources: IFRC 31/07/2018 ,
GADM, Natural Earth, SRTM
Map created by MapAction (15/08/2018)