

## White Nile: pre-crisis and current situation

### HOW HAS THE CURRENT CONFLICT AFFECTED WHITE NILE?

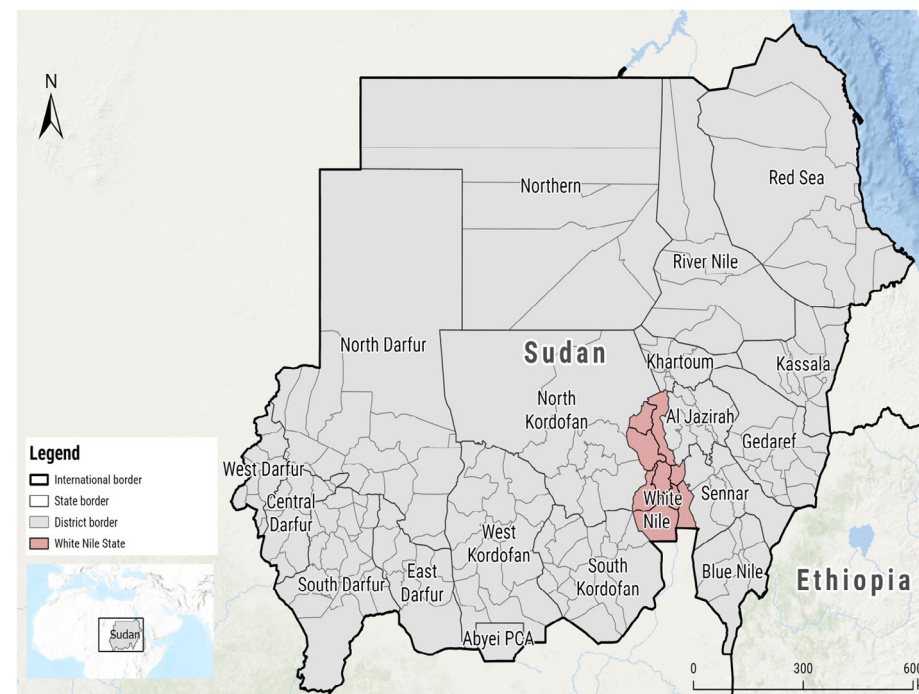
On 15 April 2023, the alliance between the Sudanese Armed Forces (SAF) and Rapid Support Forces (RSF) collapsed into violence. The conflict that began in Khartoum has spread across the country, causing death, injuries, displacement, and destruction (ACLED 23/06/2023). The violence has displaced over five million people, including over four million within Sudan and over one million to neighbouring countries (UNHCR accessed 21/09/2023).

The hostilities have not directly affected White Nile, but its safety and proximity to Khartoum have made it a main pathway for people leaving Sudan, providing a critical access point to South Sudan at Kosti. The state also provides a haven for people with limited options for onward movement. White Nile faces overcrowding and high WASH needs as a result of disease outbreaks and floods (MSF 27/07/2023). There has also been conflict between the Hausa and Nuba tribes in Kosti following longstanding tensions over scarce water and land resources between farmers and pastoralists (VOA 09/05/2023).

#### Information gaps

- Up-to-date information on baseline indicators is not available. The last available baseline data was gathered in 2014 (see the 2014 Multiple Indicator Cluster Survey).
- It is unclear if and how the conflict is affecting service provision and supply chains in White Nile state.
- There is limited information on current refugee camps' capacity.
- There is limited information on infrastructure details in White Nile state and whether the conflict has affected them.
- The rate of domestic violence in the state, which would help in the understanding of dynamics around protection risks, is unclear.
- There is limited information on the pre-crisis and current capacity of the health system in White Nile state.
- There is a lack of information on access challenges in White Nile state outside flood-related constraints that challenge road accessibility and destroy infrastructure.

Map 1. Sudan administrative division



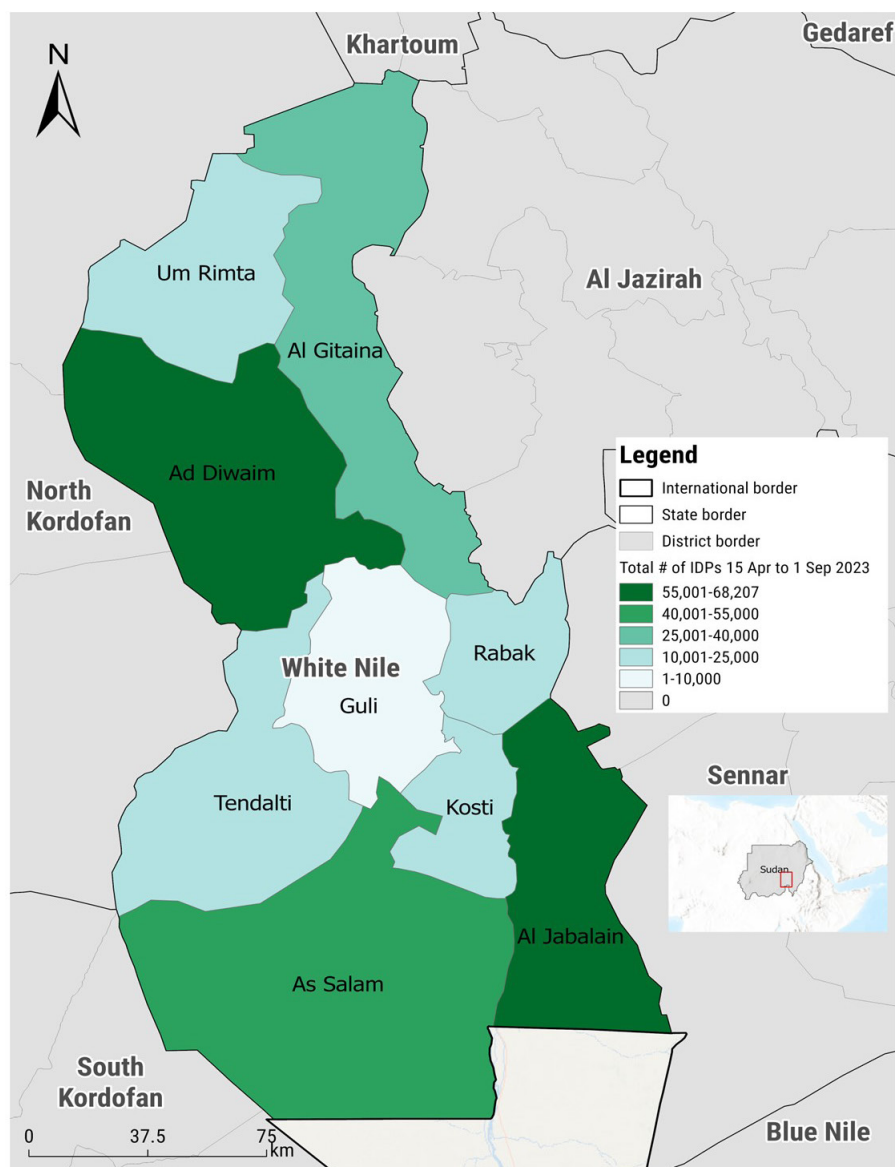
Source: ACAPS using data from OCHA accessed 06/09/2023

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## Displacement

Map 2. Displacement across White Nile state



Source: ACAPS using data from IOM (27/08/2023)

White Nile is one of the main areas of initial destination for Sudanese people seeking refuge from conflict (UNHCR 16/07/2023). As at 22 August 2023, over 144,000 pre-crisis refugees unable to flee Sudan had been displaced to White Nile from Khartoum since the conflict started (UNHCR accessed 05/09/2023). This could be linked to White Nile's proximity to Khartoum as well as its relative safety. Approximately 70% of the refugee arrivals into White Nile are children.

Most of the refugees arriving from Khartoum are South Sudanese, with another group of around 17,000 IDPs fleeing from Blue Nile following intercommunal clashes in the state (OCHA 29/03/2023). These arrivals add to the over 283,000 IDPs who have fled other conflict-affected states, resulting in a large displaced population facing highly unmet shelter, food, healthcare, and WASH needs (IOM 20/09/2023; MSF 27/07/2023).

Sudanese people displaced to White Nile are located across Ad Diwaim, Al Gutaina, Al Jabalain, As Salam, Guli, Kosti, Rabak, Tendalti and Um Rimta localities. As at 28 July, about 53% were staying with relatives in the host community, 30% in camp-like settlements, about 10% in rented accommodation, about 6% in schools or other public buildings, and the rest (less than 1%) in open-area gathering sites. The ten refugee camps in White Nile are located across As Salam and Al Jabalain localities (OCHA accessed 17/08/2023; UNICEF accessed 17/08/2023; IOM 18/07/2023; NRC 26/09/2022).

Um Sangour camp, designed to host 30,000 people, is currently hosting 70,000 (MSF 27/07/2023). The capacity of other camps is unclear, but it is clear that they are hosting beyond their capacity.

### Increased tensions worsened by the Khartoum conflict

Ethnic tensions stemming from the effects of the SAF-RSF conflict have triggered localised conflicts over pre-existing tensions. In May, fighting broke out between the Hausa and Nuba ethnic groups in Kosti, the capital of White Nile state, following extended periods of harboured tension renewed by disputes over land ownership. The fighting resulted in at least 16 casualties and an unknown number of injuries and houses burnt (VOA 09/05/2023; The Eastern Herald 10/05/2023). These events led to the declaration of a curfew from 20:00 to 05:00 local time (Africanews 09/05/2023).

Shortages and increased prices of basic commodities, including fuel, as well as the closure of financial services and a lack of cash in the country, have caused tensions within refugee camps and host communities. There have also been tensions over water in White Nile state, heightening the need for increased water supply through the scaling up of water trucking activities and longer periods of water pumping (UNHCR 04/06/2023).

## Increased health risks because of overcrowding in IDP camps

Overcrowding in the camps has led to increasing cases of communicable diseases. As at 27 August, 1,643 children had died from malnutrition and disease outbreaks (OCHA accessed 31/08/2023). The most common illnesses and conditions reported are suspected measles, pneumonia, and malnutrition, especially among under-five children. Upon arriving in Um Sangour camp in June, Médecins Sans Frontières reported a high death toll, including six deaths in the first week (MSF 27/07/2023).

A measles outbreak is spreading in refugee camps in White Nile, with some of the camps already overwhelmed with daily cases of measles and malnutrition among children. As at 22 September, more than 1,200 refugee children deaths had been recorded because of suspected measles and underlying malnutrition (OCHA accessed 29/09/2023).

The influx of people into White Nile has led to significant shortages of medical supplies, food, and humanitarian aid (Dabanga 13/06/2023). The lack of essential medicine, staff, and supplies is affecting the delivery of health services in all ten camps, and current needs far outweigh available resources (UNHCR 08/08/2023).

## Increased humanitarian needs because of flooding

In many regions of Sudan, the rainy season has started, posing flood risks in areas where refugees and IDPs reside (UNHCR 16/07/2023). As at 15 August, heavy rains and flooding had affected over 13,000 people in North Darfur, Northern, and White Nile states (OCHA accessed 18/08/2023).

### Flooding-related access constraints

In eastern Sudan, including White Nile state, roads generally become impassable during floods, further hampering humanitarian aid access and delivery to the refugee camps (UNHCR 16/07/2023). As at 25 August, there were access challenges to the refugee camps in White Nile state, with supplies being transported through a ferry across the river (UNHCR YouTube 25/08/2023).

### Impact of flooding on WASH

In Al Jabalain locality, rains have been heavier than expected, and sewer channel capacity has been exceeded. Approximately 400 houses have been partially or totally destroyed. Water contamination and overcrowding are likely to aggravate the spread of waterborne diseases (WASH Sector 24/08/2023).

## Shelter needs from flooding

On 1 August, heavy rainfall in White Nile state destroyed 90 homes affecting 450 people, damaged 310 homes affecting 1,550 people, and killed three people in Al Jabalain. Those with destroyed homes are sheltering in a nearby mosque (OCHA 15/08/2023). Others are sleeping outdoors, exposed to the open air. There is an urgent need for shelter and clean water (IFRC 14/08/2023).

### Health risks from flooding

Risks of waterborne and vector-borne diseases are expected to increase significantly in the rainy season. This is because of stagnant pools of water becoming breeding grounds for diseases, such as dengue fever, Rift Valley fever, and chikungunya (OCHA accessed 18/08/2023). Severe malaria and cholera cases are expected in the coming months because of flooding and inadequate sanitation facilities (AllAfrica 09/08/2023).

## PRE-CRISIS CONTEXT

### Demographics

White Nile state, with an area of approximately 150,000km<sup>2</sup>, is located in southern Sudan. There are nine localities in White Nile: Ad Diwaim Al Gutaina, Al Jabalain, As Salam, Guli, Kosti, Rabak, Tendulti, and Um Rimta. The state shares borders with South Sudan, with Al Kewaik, Al Meganis, and Goda as primary entry points. These locations function as customs centres and routes for migrants, IDPs, and refugees from both nations. In the northeast, White Nile neighbours Khartoum, the capital city of Sudan (UNICEF accessed 17/08/2023; OCHA 13/04/2022).

### Population

White Nile state has a population of approximately 3.3 million people in 2023 (OCHA 29/03/2023). The typical family comprises five members, and the average population density amounts to 35 individuals per square kilometre. Rural areas accommodate three-quarters of the population (UNICEF accessed 17/08/2023). The main tribes are the Hassanyia, Ajimi, Al Selaim, Al Ahamdaa, and Kenana (OCHA 29/03/2023).

### Economy

White Nile's economy is centred around the agricultural and transportation sectors. The state possesses plenty of natural resources, including extensive agricultural lands primarily used for sugar cane cultivation (housing the three main sugar factories in Sudan), cotton production, animal husbandry, and fishing. The state has also developed its river port and railway connections, bridging the gap between northern and southern Sudan. That said, these economic endeavours have not yielded substantial increases in income or poverty reduction, primarily because of the worsening economic conditions across Sudan even before the current crisis (UNICEF accessed 17/08/2023).

## PRE-CRISIS LIVING CONDITIONS

### Poverty

Based on a 2022 needs assessment, over 20% of households in White Nile refugee camps relied on the sale of aid from NGOs and relief committees as their main source of income. Approximately 10% each relied on salaried income, small businesses, and casual labour from agricultural activities. The assessment showed severe limitations in access to stable and sustainable livelihoods, an inability for households to cover their basic needs, and a high dependency on humanitarian aid (NRC 26/09/2022). In 2006, White Nile state had a Human Poverty Index of 35%. The index depicts deprivation levels in three human development components: survival, knowledge, and material wellbeing. In this index, White Nile ranked 6th out of the 15 Sudan states assessed (FAO et al. accessed 17/08/2023). Sudan has 18 states, meaning three were not part of the assessment. It is important to note that this data was gathered before the separation of South Sudan and Sudan, meaning it is outdated.

### WASH

Poor health, water, and sewage structures in the country result in cholera epidemics across Sudanese states, including White Nile. The state's refugee camps have limited access to water and lack hygiene facilities. This, combined with dilapidated infrastructure, increases the risk of waterborne diseases (Sudan Tribune 19/09/2019; NRC 26/09/2022). White Nile state has low environmental sanitation indicators, with more than 40% of people lacking access to sanitation facilities and practising open defecation as at 2019 (UNICEF 2019). Among Sudanese states, White Nile has one of the lowest rates of access to improved drinking water sources at 32.8% (Simonin et al. 26/01/2023).

### Health

White Nile has one of the lowest ratios of medical professions per 1,000 people in Sudan (OCHA 07/11/2022). The state also lacks the facilities needed to curb outbreaks and manage chronic diseases. Cancer cases, for example, are referred to the Cancer Institute in Khartoum. Throughout Sudan, where dengue fever is endemic, there is only one laboratory that can confirm vector-borne diseases (in Khartoum) (Dabanga 21/12/2022).

## Diseases

Since White Nile state reported dengue fever cases for the first time in 2022, the disease has become more frequent, especially following floods. Authorities have attributed dengue cases to heavy rains and inadequate preventative measures, such as nets and insect repellents (Guardian 21/12/2022). In 2019, a measles outbreak was reported in the refugee camps (UNHCR 31/01/2019). A cholera epidemic in 2017 killed over 60 people and infected approximately 1,800 (Sudan Tribune 25/05/2017). There was also an increase in malaria cases in 2019, passing the epidemic threshold (indicating a sharp increase in malaria incidence rates among populations compared to previous years). White Nile state, along with Darfur region and Khartoum, were some of the most affected states (OCHA 12/12/2019).

## Protection concerns

In White Nile state, 37% of women ages 20–49 were married before reaching the age of 18, making early marriage prevalent. There is also a common occurrence of female genital mutilation. Based on a 2017 study, domestic violence is generally tolerated in the family. If the violence becomes too much, the wife reports to the family, and a conference between men from the two families resolves the conflict. Authorities are contacted only as a last resort and in cases where the violence is considered severe and committed by a stranger. In the study, girls from White Nile expressed willingness to report violence cases to authorities; this is attributed to the lack of a strong social protection system as the system put in place to address such cases before they are escalated to authorities does not seem to resolve them (AUW 31/09/2022).

According to an assessment done in White Nile refugee camps between May–June 2022, the most common risks for refugees included instances of harassment and mistreatment while collecting water or firewood (42%), typically assigned to women. This was followed by child pregnancies (24%), instances of child marriage (14%), and incidents of gender-based violence (11%). Risks involving the entire population included substance abuse (24%), instances of discrimination (20%), and economic exploitation (12%). Stigma or discrimination by the host community (6%) and kidnapping (4%) were also identified. 19% of the population did not report any identified protection risks affecting camp residents (NRC 26/09/2022).

Most protection and security incidents were reported to the police stationed in each camp (71%). In comparison, those who did not report to the police reported to community leaders (54%), with 10% reporting to community outreach and response (COR) managers. Most of the police officers, community leaders, and COR personnel were men, which could mean the underreporting of issues affecting women and girls. Cases of sexual assault were reported to be normalised given a lack of action from authorities. Many instances also went unreported out of fear of a negative outcome (NRC 26/09/2022).

## Education

Based on a March 2023 report, approximately 97% of children in White Nile completed primary school and continued to secondary school, above the national average (90.7%). The state also had about 68% of literate young women (between 18–24 years), above the national rate of 59.8% (OCHA 29/03/2023).

As at June 2022, 55% of refugee children living in camps were out of school, while 45% were enrolled, indicating educational barriers for many children. Of all students of primary and secondary school age, 45% were female, while 55% were male. This illustrates the presence of more educational barriers for girls and young women prior to the conflict. Some threats identified in the camps, including early pregnancy and child marriage, are potential reasons why girls were forced out of school (NRC 26/09/2022).

Before the conflict, there were also challenges with the learning environment, including inadequate WASH facilities, with some schools reporting no WASH facilities. Only 25% of schools reported having safe water and gender-segregated latrines; most schools lacked both handwashing facilities and latrines, with open defecation exposing learners and teachers to the risk of diseases. All schools also lacked accessible facilities for children with disabilities. Absenteeism and a lack of access to education in White Nile state were attributed to the need for children to assist with house chores (NRC 26/09/2022).

## PRE-CRISIS HUMANITARIAN CONCERNS AND CAPACITIES

### Existing displacement and refugees

As at February 2023, White Nile hosted approximately 287,000 refugees from South Sudan and about 17,000 IDPs from Blue Nile (OCHA 29/03/2023). 60% of the refugees lived across ten camps within As Salam and Al Jabalain localities, with more than 100,000 South Sudanese refugees living outside camps. The remaining 40% of refugees were integrated into host communities and lived outside these camps (UNICEF accessed 17/08/2023).

As at September 2022, the camps accommodated 11,500–38,000 individuals each. These camps, operating at full capacity and falling significantly short of basic humanitarian standards, consistently suffered from inadequate support. They also faced the severe impacts of decreased funding (NRC 26/09/2022).

South Sudanese refugees face the highest level of need. They have high needs for permanent shelter with sufficient levels of privacy, security, and protection from exposure. Issues such as overcrowding, the unsafe location of shelters, the distance of water sources, and a lack of privacy or locks increasing protection risks were reported during a 2022 needs assessment. A lack of infrastructure and public utilities also impede access to basic services (UNHCR 30/01/2023). WASH needs were already significantly high before the current crisis.

### Food security and nutrition

Approximately 470,000 people in White Nile faced Crisis (IPC Phase 3) or Emergency (IPC Phase 4) food insecurity levels between October 2022 and February 2023 (OCHA 29/03/2023).

The 2022 Standardized Expanded Nutrition Survey (SENS) conducted in White Nile revealed that the nutritional situation among refugees was of great concern. The global acute malnutrition prevalence across the ten camps ranged from 15.2–18.6%, falling into the critical category and exceeding the 15% threshold. Similarly, severe acute malnutrition prevalence exceeded 2%, which is considered critical for refugee populations by UNHCR standards. Comparing these findings to the 2018 SENS results, it is evident that the nutrition situation has worsened over the years. Anaemia prevalence among children aged 6–59 months was also classified as critical in all camps. Given the rising food prices and decreasing assistance because of funding shortages, the outlook for the nutrition status is likely negative (UNHCR 30/01/2023).

## Climate-related hazards

The impact of climate change on White Nile region has been severe, making it one of the fastest-warming areas in Sudan. Over the years, air temperatures have risen by 1° C annually since the 1970s. Alongside a 30-year-long decrease in rainfall, there are indications that rainfall pattern has become less predictable, with rains coming later and falling more inconsistently. Inconsistent rainfall has affected grazing and other agricultural schemes. Environmental degradation is also stemming from various factors, including the depletion of groundwater in locations like As Salam and Al Jabalain, drought in Al Gutaina, floods along White Nile River, and the recurrence of cholera epidemics. The extensive felling of trees for charcoal production, particularly in As Salam and Al Jabalain, and the improper management of liquid and solid waste are worsening the situation. These factors collectively contribute to both environmental decline and worsening socioeconomic conditions for many communities (UNICEF accessed 23/08/2023; UNDRR 13/02/2023; UNDP 09/08/2018).

The situation has had detrimental effects on water availability and agricultural potential. This includes a higher occurrence of droughts, dust storms, and heatwaves. Severe flooding events are also becoming more frequent because of increased rainfall intensity during both the rainy season and rainstorms. Various non-climate factors, such as reduced vegetation cover from overgrazing and deforestation, as well as inefficient water resource management, worsen these climate patterns and the associated risks. Consequently, these trends further contribute to the shifting of ecological zones and desertification (Ministry of Environment, Natural Resources and Physical Development 07/2016).

### Floods

The rainy season in Sudan typically occurs annually between June–September, with the greatest concentration of rain resulting in flooding between August–September (OCHA 08/12/2022). In recent years, White Nile state has experienced substantial rainfall and sudden floods in different areas. Increasing environmental degradation contributes to floods, as deforestation lowers the ability of soil to absorb water from heavy rainfall. Between 2000–2015, approximately 347km<sup>2</sup> of land were degraded across White Nile state (FAO accessed 07/09/2023). The regions hit hardest by these floods were Al Gutaina, Al Jabalain, As Salam, Guli, and Tendalti. In September 2021, floods affected approximately 16,000 families (equivalent to 80,000 individuals) in Al Jabalain, with the effects extending to refugee communities (the rains completely inundated Alganaa camp). The occurrence of unpredictable and intense rainfall has become more frequent in previous years, leading to road accessibility challenges and structural damage (UNICEF accessed 23/08/2023). Heavy rains and flash floods also affected about 350,000 people in September 2022, where White Nile was one of the most affected states. The conditions led to poor road access, hampering humanitarian assistance delivery (OCHA accessed 18/08/2023).

## PRE-CRISIS RESPONSE CAPACITY AND HUMANITARIAN ACCESS CONSTRAINTS

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There was already a lack of resources and capacity to meet the humanitarian needs in White Nile before the conflict (UNHCR 30/01/2023). Despite the different crises affecting White Nile state, there were only four INGOs and six UN agencies present in White Nile as at July 2022 (NRC 26/09/2022). The 2022 Humanitarian Response Plan targeted 630,000 people with 23 organisations in the state. These organisations reached approximately 496,000 out of the 630,000 people targeted in White Nile (OCHA 29/03/2023). According to the 2023 Humanitarian Needs Overview, there were approximately 930,000 people in need in the state (OCHA 07/11/2022).

The priority localities in White Nile for 2023 based on the Country Refugee Response Plan were As Salam/Ar Rawat (115,001), Al Jabalain (62,688), and Kosti (40,690). Health partners in White Nile face a shortage of funding, and their capacity is limited unless provided with resources (UNHCR 30/01/2023).

International humanitarian personnel must secure a Travel Notification approval through the Humanitarian Aid Commission before travelling beyond their base. Any delays in this process could affect programme execution. INGOs also need to establish a technical agreement with the Government for each project, valid for up to 12 months. Administrative delays in approvals may slow down programme delivery (OCHA 29/03/2023).

Yearly floods in White Nile are known to make roads unpassable, hampering humanitarian access into the camps (UNHCR 16/07/2023).