

### HIGHLIGHTS (3 Oct 2019)

- Humanitarian partners have developed a cholera readiness and response plan and are seeking US\$ 20.3 million for the next three months.
- Number of suspected cholera cases continues to rise, with 226 cases—including eight deaths—reported in Blue Nile and Sennar states as of 30 September 2019.
- Federal Ministry of Health has requested Oral Cholera Vaccine (OCV) to target 1.6 million people in high risk areas of Blue Nile and Sennar states.
- Forecasts estimate up to 13,200 cholera cases in the next 6 months in high risk states of Sudan.

### SUMMARY OF CHOLERA RESPONSE ACTIVITIES AND BUDGET

Summary of the Activities and Budget	
Leadership and Coordination	530,800
Surveillance and Reporting	753,000
HSS/Case Management and Infection Prevention and Control (IPC)	1,620,830
Community Engagement	1,926,000
WASH/ Environmental Health/ Food Safety	13,510,000
Nutrition	1,959,409
<b>Grand Total</b>	<b>20,300,039</b>

*Summary of Sudan cholera response plan budget*

### KEY FIGURES

**364,200**

People affected by floods

**226**

Suspected cholera cases

**17**

States affected by floods (HAC & Partners)

**2**

States with cholera outbreak

### FUNDING (2019)

**\$1.1B**

Required

**\$452.1M**

Received



**39%**  
Progress

FTS: <https://fts.unocha.org/appeals/670/summary>

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### EMERGENCY RESPONSE (3 Oct 2019)

#### Humanitarian Cholera Readiness and Response Plan

The major disease outbreaks in Sudan for the past decades are grouped into three categories based on type of transmission: water-borne, vector-borne and vaccine-preventable diseases. This is mainly attributed to low access to and coverage of safe drinking water, and sanitation, environmental sanitation and low vaccination coverage; exacerbated by weak health and WASH infrastructures. The country experienced the worst flooding since 2015 creating favourable ground for emergence and aggravation of water-borne and vector-borne diseases such as cholera, dysentery, dengue fever, malaria, etc. The most affected states by the flooding were White Nile, Kassala, Khartoum, Gezira, and North Kordofan.

The outbreak is spreading to neighbouring and adjacent localities and states despite the prompt and initial control measures put in place by health and WASH partners under the leadership of the government. Without timely and intensive scale up of control measures in high risk and adjacent states, the outbreak is likely to spread to other states. The pattern of spread during the last AWD outbreak attested the same evolution by engulfing one adjacent State after another due to population movement, poor WASH situation and other vulnerabilities. According to FMOH and WHO, eight states are at high risk; Blue Nile, Sennar, Gezira, Khartoum, Gadaref, White Nile, Kassala, and River Nile.

The Federal Ministry of Health has requested over 3 million doses of the Oral Cholera Vaccine (OCV) in order to conduct a vaccination campaign. The aim of the campaign is to contain the outbreak and prevent the spread to adjacent areas. The initial reactive campaign will target over 1.6 million people living in high risk communities in Blue Nile and Sennar states who will receive two doses of the vaccine.

To support government efforts to contain the disease and prevent further spread, humanitarian partners have developed a cholera readiness and response plan and are seeking **US\$ 20,300,039** for the next three months.

This plan is built on 6 main pillars in line with global multi-sectoral interventions to control cholera and the Sudan National AWD Response Plan 2018-2019:

1. Leadership and Coordination
2. Surveillance and Reporting
3. Community Engagement
4. Water, Sanitation, Hygiene and food safety
5. Use of Oral Cholera Vaccine
6. Health System Strengthening/HSS (case management and IPC)

In addition, given the overall prevalence of malnutrition in the targeted states, nutrition response has been included under the HSS to support the case-management and IYCFC of children with malnutrition and pregnant and lactating women affected by cholera. Consistent with the national and international strategies, guidelines and protocols the proposed activities will contribute to respond and contain further spread and reduce mortalities due to water-borne (with a focus on Cholera) and vector-borne disease outbreaks in the targeted 8 States over 3 months. As per its core mandate of health security of communities, WHO will protect health and ensure health security.

Overall, partners will target 13,000 for cholera case management, 1,016,006 people (including refugees in camps at risk) with provision of direct health services, 2.5 million people who will benefit from WASH interventions, 300,000 severely malnourished children and 546,000 mothers and caregivers to access infant and young child feeding counselling. Refugees living in camps in Kassala, Gedaref and White Nile States, and in Khartoum 'Open Areas' sites will also be targeted through a multi-sector response. Activities will also include mitigating underlying causes of high mortality like severe malnutrition in children under 5 years of age and targeting schools with WASH activities and hygiene campaigns.

See the complete [Humanitarian Cholera Readiness and Response Plan](#)

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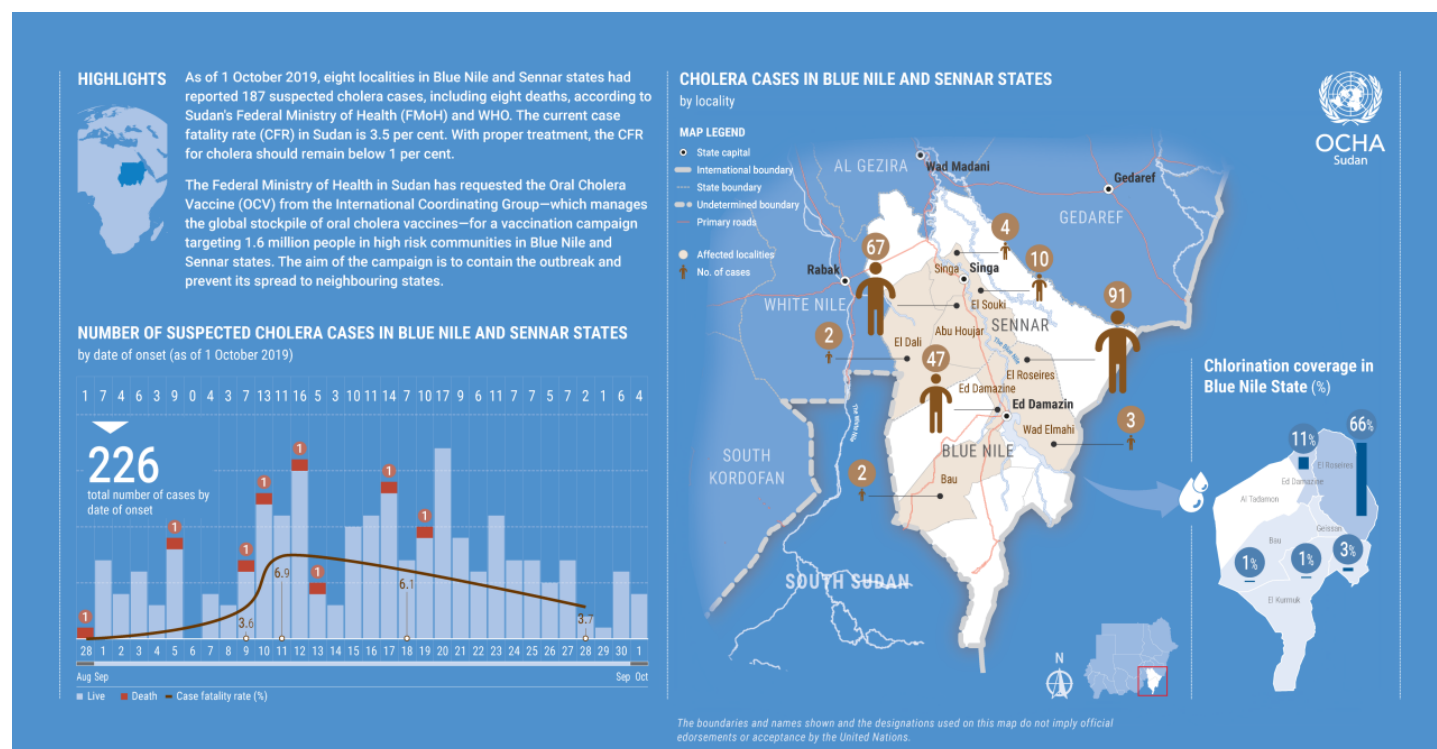
### BUDGET SUMMARY BY AGENCY

Summary of the Activities and Budget	
WHO	7,417,040
UNICEF	10,102,999
UNHCR	2,780,000
<b>Grand Total</b>	<b>20,300,039</b>

*Sudan cholera response plan budget by activity and agency*

### VISUAL (3 Oct 2019)

#### Sudan Cholera Snapshot (as of 3 October 2019)



### EMERGENCY RESPONSE (3 Oct 2019)

#### Response and Funding to Mitigate Cholera Outbreak in Blue Nile and Sennar States

##### Overview

As of 30 September 2019, eight localities in Blue Nile and Sennar states had reported 226 suspected cholera cases, including eight deaths, according to Sudan's Federal Ministry of Health (FMoH) and WHO. The current case fatality rate (CFR) in Sudan is 3.5 per cent. With proper treatment, the CFR for cholera should remain below 1 per cent.

On 19 September, the Federal Ministry of Health in Sudan requested the Oral Cholera Vaccine (OCV) from the International Coordinating Group—which manages the global stockpile of oral cholera vaccines—for a vaccination campaign targeting 1.6 million people in high risk communities in Blue Nile and Sennar states. The aim of the campaign is to contain the outbreak and prevent its spread to neighbouring states.

Despite the progress made in response, humanitarian actors face many challenges. More trainings are needed and registration tools, guidelines and protocols for surveillance are weak. Health education and infection prevention at cholera treatment centres (CTCs) need to be improved to prevent the spread of cholera. Cleaning tools, equipment and protective clothes are also needed for cleaning campaigns.

In addition, resources for cholera response in Sudan and preparedness in high-risk states is currently a major challenge, according to FMOH. The health ministry states that more efforts and funding are needed to address gaps in the areas of vector control, environmental sanitation and water chlorination in Blue Nile and Sennar. Lack of funding is likely to affect the response, with the opportunity of preventing new cases, averting deaths and saving time and resources potentially lost.

### Blue Nile State (response as of 28 September 2019)

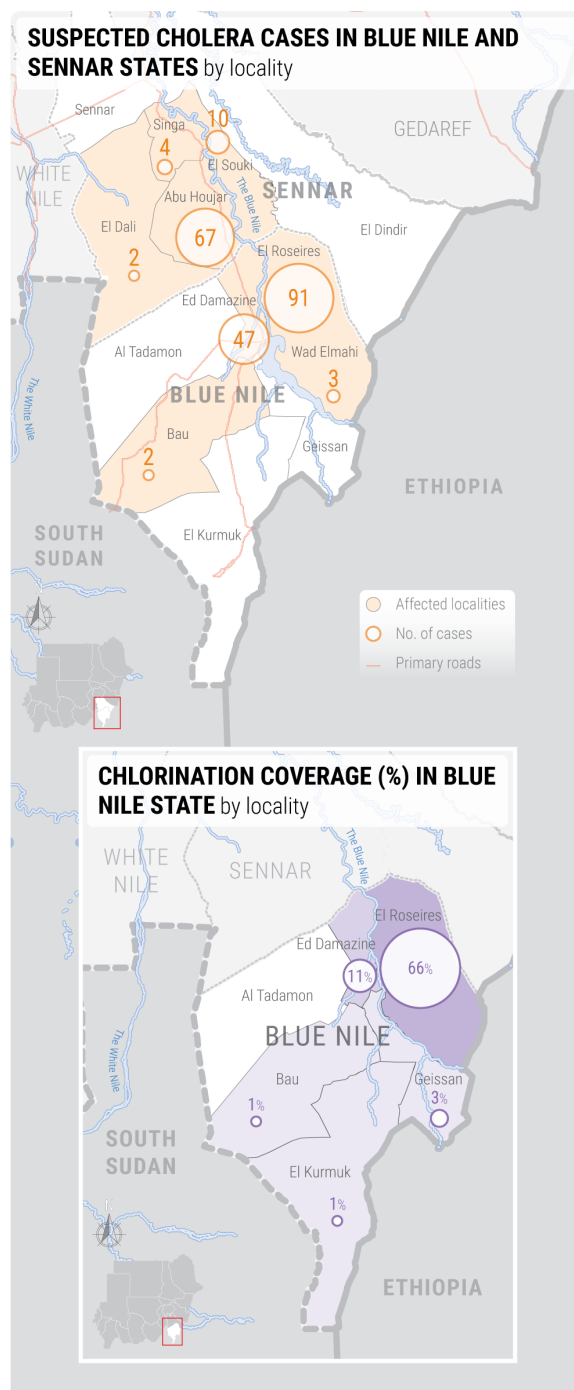
As of 30 September, 143 suspected cases of cholera, including six deaths, were reported in Blue Nile State by FMOH and WHO, with a CFR of 4.2 per cent. Humanitarian partners meet daily to coordinate response.

#### Health response

The FMOH and WHO are working together to strengthen disease surveillance, provide medical treatment for patients, distribute laboratory supplies, monitor water quality and chlorinate public water supplies, and promote health education and hygiene among affected as well as at-risk communities. Three cholera treatment centres are serving patients in Blue Nile—two supported by Médecins Sans Frontières (MSF)-Spain and one by WHO.

In Blue Nile State, WHO procured 25 cholera kits. These kits contain enough supplies to support 2,500 severe cholera cases. The kit also contains 5,000 Rapid Diagnostic Tests (RDTs) for cholera—these tests will be distributed to priority, high-risk areas. WHO has conducted a training workshop for 24 care providers from three affected localities in the state on management of cholera cases and activated three community based surveillance sites in high-risk areas.

UNICEF supported the State Ministry of Health (SMoH) CTCs and oral rehydration therapy (ORT) corners—an area within a health facility where caregivers can receive practical demonstrations on how to prepare ORS solutions and access lifesaving rehydration for sick people under the supervision of a healthcare provider—across the state. Assistance included seven cholera kits including community equipment and drug kits, 10 cartons of oral rehydration salts (ORS), 10 cartons of Zinc, 15 cartons of Integrated Management of Childhood Illness (IMCI) kits, and 640 ringer lactates. Additionally, UNICEF and partners supported five ORT corners and a cholera treatment unit (CTU) in Almadina 4 area (Wad Elmahi locality), serving 24,000 people. Health promotion interventions continue and awareness-raising sessions were attended by 35,000 people from displaced and vulnerable communities. UNICEF also supported the implementation of mid-upper arm circumference (MUAC) screening in the Gannis area—where the first case of cholera was reported. Out of 6,767 children under five years screened, 54 children were identified with severe acute malnutrition (SAM) while 86 children were identified with moderate acute malnutrition (MAM). All SAM cases were referred to the Gannis OTP for treatment. Mother Support Groups (MSG) carried out 421 awareness-raising sessions reaching about 10,500 women.



Case management is very important in responding to outbreaks such as cholera. WHO distributed treatment guideline and supervision checklists to health care personnel and trained 24 care providers from the three affected localities on management of cholera cases. On-job training was given to the health providers in Goone (Ed Damazine locality) and Almadeena 4 (Wad Elmahi locality). WHO trained 20 medical doctors and nurses from Ed Damazine and El Roseires localities on standard case management, who will serve about 210,000 people. In addition, WHO has provided SMoH with equipment for cholera treatment facilities and has requested a shipment of drug supplies and intravenous (IV) fluids to cover needs in the state.

#### **Water, sanitation and hygiene response**

Water, sanitation and hygiene (WASH) interventions are vital in the management and preventing the spread of cholera. One way of making water safe to use is chlorination, which is the process of adding chlorine to drinking water to disinfect it and kill germs. In Blue Nile State 87 per cent of the urban water network system has been chlorinated, while the chlorination of water sources outside the network has reached 70 per cent. Household disinfection has been carried out in 5,512 homes in six localities in the state. In addition, 986 donkey carts and 14,038 containers in areas with unprotected water supplies were chlorinated. Vector control activities were carried out in 592 breeding sites for houseflies—one of the main transmitters of the cholera microbe. Food safety control is ongoing but coverage is low.

In order to promote better health practices, printed messages and information, education and communication (IEC) materials on therapeutic feeding, nutrition, environmental and sanitation, healthy water and cholera were distributed throughout the state. In El Roseires town and Gannis area, messages were disseminated through 13 theatrical performances and eight video presentations were given through two mobile video carts provided by the FMoH.

The main challenges facing response in Blue Nile State include chlorination coverage of areas outside the urban water network; having proper food handling inspections; household hygiene; open defecation; and solid waste collection.

#### **Sennar State (response as of 21 September 2019)**

As of 30 September, 83 suspected cases of cholera, including two deaths, were reported in Sennar State by FMoH and WHO, with a CFR of 2.4 per cent. The SMoH in Sennar established an operation room—co-chaired by WHO and with the participation of UNICEF and the Sudanese Red Crescent Society (SRCS)—where humanitarian partners meet and coordinate response.

#### **Health response**

WHO is working to improve the disease surveillance system and has deployed a surveillance officer to Sennar State to assist response activities. The SMoH will activate community-based surveillance (CBS) in Abu Houjar, Singa, and El Souki localities with communication materials provided by WHO. On-the-job training was provided to nine rapid response teams (RRT) identified by the SMoH to improve case investigation and initial response.

SMoH identified the need for 30 CTCs in the state. Currently six are functioning and 24 are being prepared. WHO will support the CTCs with supplies and equipment, including training for health staff and their incentives. Protocols on case management and infection control have been shared with doctors in the state with plans for on-the-job and full trainings to be carried out soon. In addition, seven water testing kits—each kit can perform 3,000 water samples and 150 bacteriological tests—were distributed. UNICEF provided hygiene and cholera kits, which can cover the needs of over 100 cases.

House to house health education activities was carried out in the state reaching 1,433 families (about 9,500 people). Interactive radio sessions have been broadcast locally reaching about 40 per cent of people in the state. In El Souki locality, 40 people from the local community and the SRCS were trained to deliver health promotion messages and carry out chlorination activities.



## Water, sanitation and hygiene response

For water quality monitoring, WHO trained 80 volunteers in Abu Hajar on water quality and chlorination. Water quality testing kits were sent to all seven localities in the state. Each kit will cover testing for 3,000 water samples and 150 bacteriological tests. UNICEF provided hygiene and cholera kits to cover 100 cases as well as strip chlorine tabs for water purification. In addition, water sources in 125 homes were chlorinated. On-the-job training and training of trainers for 20 public health officers in the state was carried out.

## FORECAST (3 Oct 2019)

### Projection for cholera cases in Sudan over the next 6 months

An expert team from the WHO headquarters in Geneva that specializes on cholera forecasting visited Sudan last week. They estimate that there may be between 5,000 and 13,200 cholera cases in the next 6 months in high risk states of Sudan. The projections are created based on the pattern of previous cholera/AWD outbreaks from 2016-2018.

State	# of Reported Cases (2016-2018 (outbreak))	Cholera Cases in 2019	Projections	
			Best Case Scenario	Worst Case Scenario
Blue Nile	2,358	143	472	1,179
Sennar	3,744	83	749	1,872
El Gezira	3,434		687	1,717
Gedaref	2,266		453	1,133
Kassala	958		192	479
Khartoum	2,255		451	1,128
River Nile	1,953		-	586
South Kordofan	1,221		244	611
West Kordofan	343		-	103
White Nile	8,824		1,765	4,412
<b>Total</b>	<b>25,233</b>	<b>226</b>	<b>5,013</b>	<b>13,247</b>

There are two potential scenarios – the best case and the worst case. In the best case scenario, eight high-risk states adjacent to the areas currently affected by cholera will experience between 20-30 percent of the cases experienced from 2016-2018. This means up to 7,518 people would be affected by cholera.

In the worst case scenario, the outbreak will spread beyond the eight high-risk states and between 40-50 percent of the cases experienced in the last outbreak will occur. In this estimate over 13,000 people will be affected by cholera in 10 states.

There are several factors required to ensure the best case scenario. This includes a high level of transparency and information sharing between partners responding to the outbreak, a prompt national response, active engagement of the local community, readily available health promotion materials and an increased number of surveillance sites to catch new cases as they emerge.

## EMERGENCY RESPONSE (19 Sep 2019)

### Floods Overview

The flood response in Sudan is being coordinated by the Flood Task Force (FTF) Steering Committee which is led by the Sudanese Government's Humanitarian Aid Commission (HAC). Overall response is going well in areas where humanitarian organizations have operations and where preparedness plans were undertaken, mainly in Darfur states and in South Kordofan. Government access and administrative procedures were facilitated by HAC with no major challenges faced. Assessments were carried out to identify people in need of assistance in flood-affected areas in Darfur states, Kassala, White Nile, Sennar and for the first time in Khartoum State. As of 19 September 2019, an estimated 364,200 people have been affected by heavy rains and flash floods across 17 states and the Abyei area\*, according to HAC and partners. HAC has reported 78 related deaths, mainly due to collapsed roofs and electrocution. In total 45,104 homes have been destroyed and 27,742 homes damaged.

In Khartoum, the inter-sector coordination group (ISCG) is meeting on a weekly basis to coordinate humanitarian actors around key needs, response and gaps. The ISCG will now add response to the acute watery diarrhoea (AWD)/cholera outbreak to the agenda. At the state level, OCHA is working with state-level HACs' to coordinate the identification of key needs, response and gaps. In areas where OCHA is not present, agencies were identified as focal points to lead coordination efforts. Due to the scale of needs in White Nile State, OCHA has deployed a team to the state to coordinate response.

The total number of people affected by floods and in need of assistance is slowly increasing as more areas become accessible—as water dries up—mainly in El Salam and Tandalti localities in White Nile State. In areas where humanitarian actors are not present, HAC and national actors are trying to meet needs, but response is hampered by limited relief supplies, funding or staff. The main need of all people affected by floods are emergency shelter and household supplies (ES/NFIs). According to the Financial Tracking Service (FTS), the ES/NFI sector in the 2019 Humanitarian Response Plan (HRP) is only 0.3 per cent funded as of 12 September 2019. Other assistance needs include food, water, sanitation and hygiene (WASH), and health services.

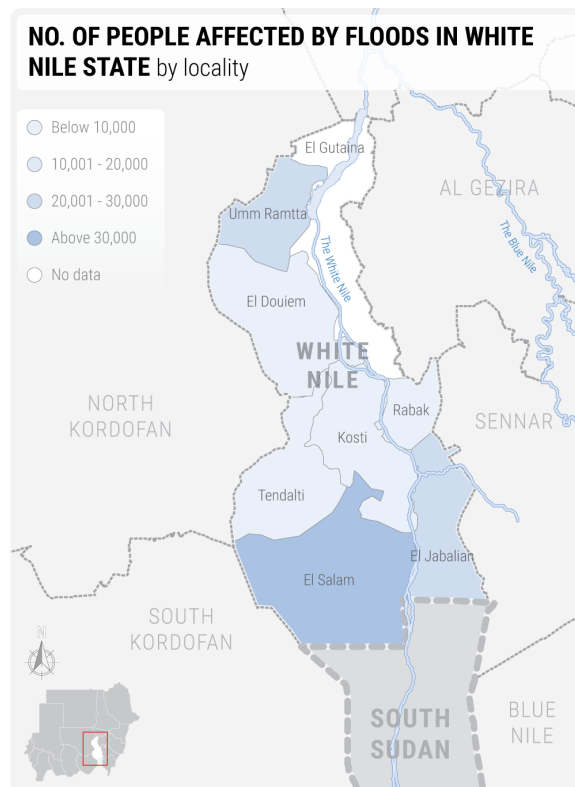
### Outstanding gaps

Despite all ongoing response efforts by government authorities, UN agencies, international NGOs, national NGO and regional countries, not all people have received the assistance they need. In White Nile, Sennar, Khartoum, and Gedaref states an estimated 36,000 people still need water, sanitation and hygiene assistance. In White Nile, Sennar, and El Gezira states, 107,000 people still need health assistance. In White Nile, Khartoum, Sennar, and Kassala states, about 45,000 people still need ES/NFIs. There has been limited education assistance provided.

### Forecast

According to the latest Sudan Meteorological Association (SMA) forecast, less rainfall is expected as the rainy season comes to an end across the country. However, slightly above normal rainfall is expected in Blue Nile, South Kordofan and southern parts of the Darfur area. The risk of water-borne disease outbreaks such as AWD/cholera remains high and additional needs may arise in the coming months. Vector control activities need to be strengthened in all states to mitigate this risk.

\*The final status of the Abyei Area is yet to be determined.



## FEATURE (24 Sep 2019)

**People affected by floods receive in-kind assistance from Qatar, Saudi Arabia, Kuwait, United Arab Emirates, and Turkey.**

As government authorities and humanitarian organizations continue to assist people affected by heavy rains and flash floods in Sudan, humanitarian assistance has also arrived from abroad. Qatar, Saudi Arabia, Kuwait, the United Arab Emirates (UAE), and Turkey have been assisting in flood relief efforts. As of 22 September, an estimated 364,230 people, including 78 deaths, have been affected by heavy rains and flash floods across 17 out of the 18 states and the Abyei area, according to the government's Humanitarian Aid Commission (HAC) and partners. The majority of people affected require emergency shelter and household supplies, food, health as well as water, sanitation and hygiene services. The number of people affected has already exceeded those of the past four years and humanitarians will need to replenish their humanitarian supplies.



*Aleshraq NNGO distributes relief supplies donated by Qatar Charity in Makali village, Kassala State (Aleshraq, Sept 2019)*

The assistance from Qatar, Saudi Arabia, Direct Aid (Kuwait), Khalifa bin Zayed Foundation (UAE), and the Turkish Red Crescent Society supplement what is already being provided by humanitarian actors in Sudan through the 2019 [Humanitarian Response Plan](#) (HRP). As of 22 September 2019, the HRP received US \$377.9 million out of the \$1.15 billion requirement (32.9 per cent).

### **Qatar Charity**

On 1 September 2019, Qatar announced it will provide US\$ 5 million worth of emergency relief assistance—with funding from the [Qatar Fund for Development](#)—to assist people affected by floods in Sudan. The first batch of flood supplies and including medicines, shelter materials, nutritional supplies, and have arrived in Sudan. In addition, Qatari humanitarian and relief organizations in Khartoum were tasked to provide emergency assistance including food, water, and sanitation support, and medical teams will provide urgent health care assistance to people affected by floods.

Qatar Charity is currently providing emergency household supplies and food interventions in White Nile State. In El Gezira State, Qatar Charity will provide emergency household supplies as well as water, sanitation and hygiene assistance (WASH). Food, emergency household supplies as well as health and WASH services will be provided in Kassala State. Qatar Charity works in several humanitarian sectors including health, emergency shelter and non-food items (ES/NFIs), education, food security and livelihoods and early recovery.

### **King Salman Humanitarian Aid and Relief Centre**

On 2 September 2019, the Kingdom of Saudi Arabia sent two aircrafts of humanitarian supplies (tents, food, mats, blankets and medical supplies) from the [King Salman Humanitarian Aid and Relief Centre](#) (KSrelief) to be distributed to people affected by floods in Khartoum, White Nile and River Nile states. In addition, spraying equipment and pesticides necessary to prevent the transmission of diseases, have been sent. Saudi Arabia also sent five tons of medical supplies as well as 111 tons of food aid. A specialized team from KSrelief arrived in the country to supervise the distribution.

### **Kuwaiti aid group Direct Aid**

On 3 September 2019, the Kuwaiti aid group [Direct Aid](#), airlifted humanitarian relief supplies, including shelter materials and food supplies to Khartoum to assist people affected by heavy rains and flash floods. Direct Aid will be sending more assistance until the flood season is over, usually in November.

### **UAE Khalifa bin Zayed Foundation**



On 7 September 2019, the United Arab Emirates (UAE) [Khalifa bin Zayed Foundation](#) announced it will distribute humanitarian relief and food assistance to around 30,000 Sudanese families affected by rains and flash floods in Khartoum, El Gezira and White Nile states. The foundation will coordinate relief assistance with the Government's HAC. A team from the Foundation purchased relief materials from the local market to save time and ensure the swift delivery of assistance. Staple food items and shelter materials will also be distributed to the affected families. The UAE foundation distributed food supplies and tents to people whose homes were destroyed in El Gezira State.

### Turkish Red Crescent Society

The [Turkish Red Crescent Society](#) (TRCS) is coordinating with the Sudanese Red Crescent Society (SRCS) on response to people affected by floods in the country. On 8 September, 1,000 food packages were delivered to people affected in the Al-Gaili area (Khartoum). On 18 September, two cargo aircrafts arrived in Khartoum from Ankara carrying tents, blankets, hygiene sets and food packages. TRCS plans to distribute additional food, blankets and hygiene sets and will build a tent camp, with at least 100 tents, for people whose homes were destroyed.

## EMERGENCY RESPONSE (1 Oct 2019)

### Flood Response by Sector (as of 30 September 2019)

As of 30 September 2019, an estimated 364,200 people have been affected by heavy rains and flash floods across Sudan. Affected households mostly need emergency shelter and non-food items (ES/NFIs), such as plastic sheeting, plastic mats, jerry cans, blankets and cooking sets. These items will help restore a minimal sense of dignity and protection against exposure to the elements, mitigate health risks, provide essential household items, and ensure some privacy and security to those in need. The flood response in Sudan is being coordinated by the Flood Task Force (FTF) Steering Committee, which is led by the Government of Sudan's Humanitarian Aid Commission (HAC). Relief efforts are being undertaken by government institutions, UN agencies, national and international NGOs, and international charity organizations.



*Women receive relief supplies donated by Qatar Charity in Makali village, Kassala State (Aleshraq NGO, Sept 2019)*

### Emergency Shelter/Non-food Items (ES/NFIs) Sector Flood Response

**Sector Overview:** The Emergency Shelter/Non-food Items (ES/NFIs) sector has been able to respond to the ES/NFIs needs of about 230,00 people—through 10 sector partners and international assistance—in all 16 affected states. Partners also reached affected families in the Abyei area and Agok.

**Gaps:** The current gap for NFI needs stands at 34 per cent of families affected (about 117,700 people) across 16 states and the Abyei area. States with key gaps include Blue Nile, Gedaref, El Gezira and Kassala, where less than 20 per cent of people affected have been reached with ES/NFI assistance. Families who did not receive emergency shelter have taken refuge in public buildings such as schools. Given the near end of the rainy season, shelter interventions for vulnerable IDPs, and host communities is a top priority. The NFI core pipeline has allocated additional resources to meet the needs in Khartoum, White Nile, and Red Sea states.

### Food Security and Livelihoods (FSL) Sector Flood Response

**Sector Overview:** The Food Security and Livelihoods (FSL) sector has covered food security and livelihood needs of some 268,00 people affected by heavy rains and flash floods across the country. An estimated 78,200 people (about 21 per cent) are still waiting for assistance. To ensure rapid response to people in need, the World Food Programme (WFP) pre-positioned and re-allocated food stocks in different areas across the county. Additional support from Qatar, Kuwait, Saudi Arabia, and Turkey was also provided.

**Gaps:** More food assistance is needed in Khartoum state. In the Abyei PCA box, some areas remain inaccessible due to floodwaters and partners are looking into other options to deliver food to the affected people. Restocking of seeds, tools and livestock is required in Kassala, White Nile, North Darfur, Red Sea, and Blue Nile states.

### **Health Sector Flood Response**

**Sector Overview:** The Health sector has been able to respond to the needs of some 169,000 people affected by heavy rains and flash floods across the country. An estimated 107,500 people (about 30 per cent) are yet to receive assistance.

The coordination of flood health response is carried out by the Federal Ministry of Health (FMoH) Flood Response task force, which is co-chaired by WHO. Daily Early Warning Alert and Response System (EWARS) has been activated in all health facilities in areas affected by floods. WHO supported the activation of epidemic-prone diseases alert investigation and response in all affected states and has distributed 16 Rapid Response Kits (RRK)—enough to cover the needs of up to 2 million people for three months.

Community mobilization and integrated vector control campaigns were launched in affected areas, with WHO covering operational costs, providing equipment, personal protection, transportation, and training. Sexual and Reproductive Health (SRH) assistance is required in all affected states. Out of the total population affected by floods it is estimated that 83,100 are women of reproductive age, of whom about 8,300 are currently pregnant. Emergency reproductive health kits, including clean delivery kits, are needed across all affected states to ensure safe deliveries, the provision of emergency obstetric care services, as well as other lifesaving sexual reproductive health services.

**Gaps:** More medicine and medical supplies are needed in most of the affected states as well as support for affordable life-saving referral services for emergency cases. Support for vector control and water safety campaigns, water chlorination, and community awareness is also required. UNFPA reports a gap in the supply of dignity kits due to lack of funding.

### **Nutrition Sector Flood Response**

**Sector overview:** The nutrition sector has been able to respond to the nutrition needs of some 8,600 children under five years who have been affected by heavy rains and flash floods across the country. An estimated 58,300 children (about 85 per cent) are still waiting for assistance.

Financial support has been provided to partners—the SMOH and NGOs—to run flood response-related activities, including referral for malnourished cases. Health partners provided nutrition supplies that were dispatched to affected states to mitigate any increase in needs or enrolment of malnourished children. In some affected states, outpatient therapeutic programme (OTP) and Targeted Supplementary Feeding Programme (TSFP) services are ongoing. Mid-upper arm circumference (MUAC) screening was carried out and infant and young child feeding (IYCF) programmes and mobile OTPs were established.

**Gaps:** In Kassala, mass MUAC screening needs to be carried out with ready-to-use therapeutic food (RUTF) and ready-to-use supplementary food (RUSF) interventions in the 22 villages affected in Atbara River, Rural Kassala, and New Halfa (Halfa Algadeeda) localities.

## Protection Sector Flood Response

**Sector Overview:** There are protection concerns in areas affected due to the lack of privacy and overcrowding. Gaps in other sectors such as the lack of functioning water, sanitation and hygiene (WASH) facilities, lack of shelter materials and unsafe access to services pose a risk to women and girls. There is also a lack of awareness on gender-based violence risks and services. UNFPA provided life-saving SRH services in affected states. In addition to basic and comprehensive emergency obstetric and neonatal care, this includes providing clinical management of rape and referral services for survivors of sexual violence, family planning, and sexually transmitted infections (STI) management. Dignity kits have been distributed in many states and in White Nile State UNFPA supported the provision of SRH and gender-based violence services in mobile clinics treating affected communities.

**Gaps:** There are gaps in the supply of dignity kits for affected women and girls of reproductive health age. Proper mapping of gender-based violence services in affected localities is needed in order to establish referral mechanisms.

## Water, Sanitation and Hygiene (WASH) Sector Flood Response

**Sector Overview:** The water, sanitation and hygiene (WASH) sector has been able to respond to the needs of some 222,000 people affected by heavy rains and flash floods across the country. An estimated 125,000 people (about 34 per cent) are still waiting for assistance.

Environmental health activities—including water quality monitoring, vector control campaigns, and sanitation and hygiene promotion activities—are ongoing in affected areas. WASH supplies (chlorine tablets, jerry cans and soap) were distributed to affected families. To support integrated vector control activities and access to safe water, WHO provided fogging machines, water reservoirs, water quality testing kits, water filters, personal protective equipment, and larvae collection kits. Some of the affected families have received WASH supplies and slabs for latrines. In some states drainage systems were rehabilitated and blocked drains were opened. Water pumps to drain stagnant water were also provided.

The FMOH released about 2.89 million Sudanese pounds (about US\$64,000) for the construction of 300 emergency latrines; labour costs for the disinfection and cleaning of latrines; chlorination of water sources, including supervision and monitoring; and chlorine tablets for Khartoum State.

UNICEF's Communication for Development Section, in partnership with the SMOH-Health Promotion Unit, trained 200 youth volunteers on water-borne diseases and prevention methods, as well as interpersonal communication skill and using social media in social mobilization. The trained volunteers will conduct behaviour change activities in affected areas.

**Gaps:** More hygiene promotion campaigns are required in affected areas. Gaps in WASH services, including waste collection and draining of stagnant water, have been reported in some areas. Some water points need rehabilitation and vector control activities are needed in areas that become accessible. Areas which are currently inaccessible due to flood waters will need WASH and vector control assistance and damaged latrines will need repairing.

## Refugee Inter-sectoral Flood Response

**Sector overview:** The inter-agency refugee response in Sudan is coordinated through the inter-sectoral Refugee Consultation Forum (RCF), led by UNHCR and the Commission for Refugees (COR), and covers all interventions for refugees and asylum seekers delivered by humanitarian actors across all sectors (protection, ES/NFI, health, WASH, food security and nutrition, livelihoods and education).

Rainy season preparedness activities were carried out in refugee camps in East Darfur before the onset of the rainy season. Blankets and plastic sheets were distributed, in addition to the cleaning of drainage systems and haffirs. Extensive flood prevention and maintenance was completed in 2018 for refugee camps located in flood-prone areas. In Khartoum State, UNHCR and COR completed NFI distributions—including to host communities—in 'open area' refugee sites in Sharq El Nile, Umbadda and Jebel Aulia localities, in July/early August 2019, as part of rainy season preparedness.

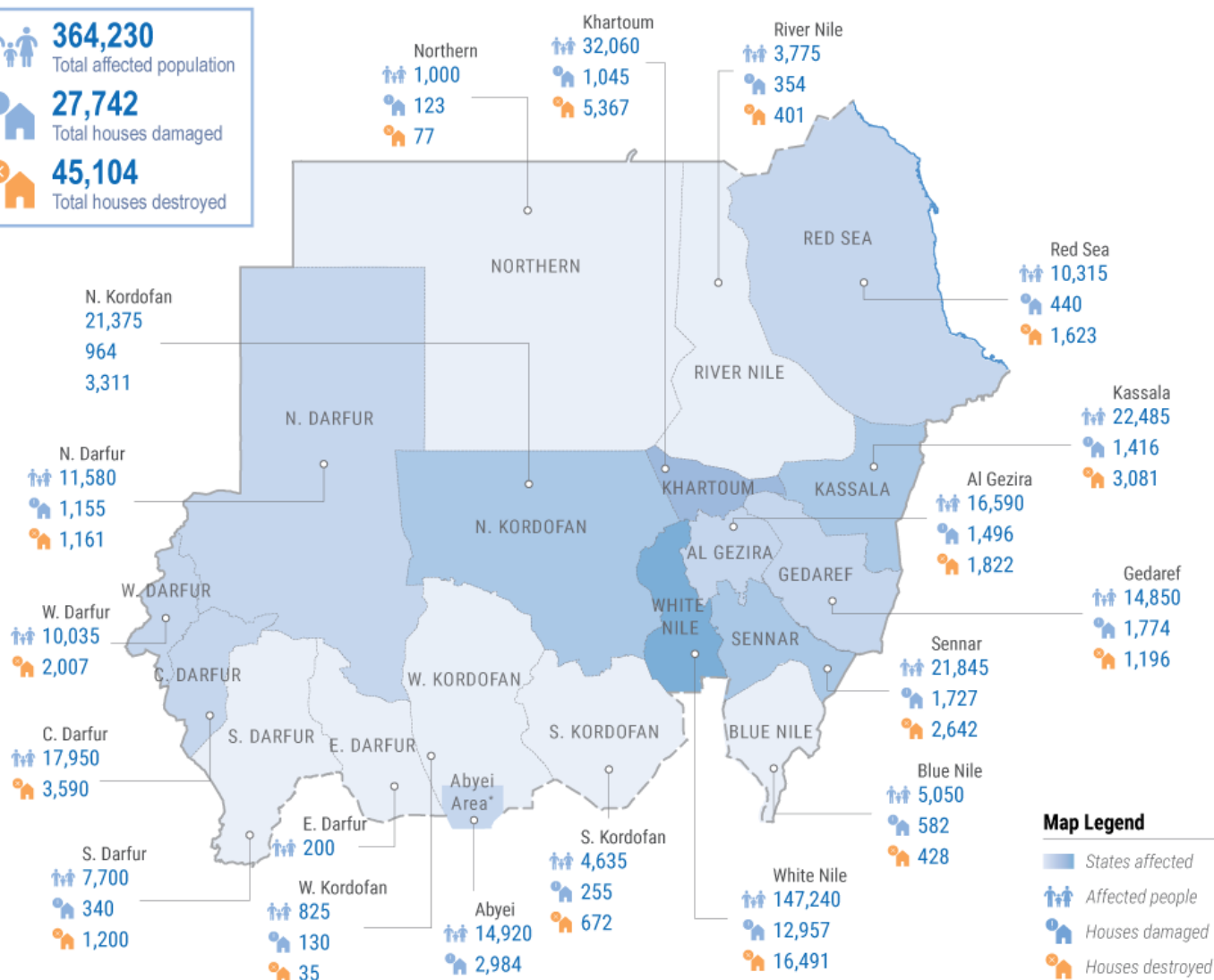
UNHCR is supporting refugee families affected by heavy rains and flash floods across the country and NFI assistance will be provided to host community families based on assessed needs. Damaged infrastructure (classrooms, distribution waiting areas, police stations, clinic waiting areas; child-friendly spaces; and warehouses) in refugee camps in White Nile and East Darfur states was repaired. In Khartoum State, UNHCR supported with NFIs, nutrition, and WASH assistance for both refugee and host communities in Khartoum State.

Gaps: Vector control is urgently needed to mitigate disease outbreaks and risks associated with stagnant water.

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**VISUAL** (19 Sep 2019)

**MAP: Floods across Sudan (As of 19 September 2019)**



\* The final status of the Abyei Area is yet to be determined.

Source: HAC and partners

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<https://www.unocha.org/sudan>

<https://reliefweb.int/country/sdn>

<https://www.humanitarianresponse.info/en/operations/sudan>

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