Flooding in eastern and northern counties

CRISIS IMPACT OVERVIEW

Since the third week of October, the rainy season in Kenya has caused heavy storms and flooding. Rainfall escalated on 2 November and the River Tana overflowed its banks on 7 November, flooding communities in Garissa county (OCHA 08/11/2023; IFRC 10/11/2023; KBC 07/11/2023). Rainfall and flooding has had the most significant impacts in Garissa, Isiolo, Mandera, Marsabit, Samburu, Tana River, and Wajir counties (OCHA 08/11/2023; ECHO 06/11/2023; AP 07/11/2023; FloodList 14/11/2023). By 8 November, River Hallam in Turkana county, River Malgis in Marsabit county, and River Daua in Mandera county had also overflowed (OCHA 08/11/2023). Other affected counties include Lamu, Meru, and Mombasa in the north and east, along with Busia in the west (WFPa 13/11/2023; China Daily 13/11/2023). Dadaab (Garissa county) and Kakuma (Turkana county) refugee camps have both been affected, with five flood-related deaths among refugees in Kakuma camp (OCHA 08/11/2023).

As at 8 November, the storms and flooding had affected nearly 61,400 people across the country (OCHA 08/11/2023). As at 14 November, around 58,000 people were displaced and up to 46 people had been killed. Most deaths reportedly occurred in Mandera county (FloodList 14/11/2023; Nation Africa 09/11/2023).

The rain and flooding damaged agricultural land, livestock, and businesses, endangering livelihoods in northeastern areas already recovering from prolonged drought (OCHA 08/11/2023; WFPa 13/11/2023). The priority needs are shelter, NFIs, food, WASH facilities, and rescue services (OCHA 08/11/2023).

Anticipated scope and scale

Kenya has two rainy seasons: the 'short' rainy season from October to December, and the 'long' rainy season from March to May (FEWSNET 09/11/2023). Forecasting models predict above-average rainfall through to January 2024, aggravated by a strong El Niño season and a positive Indian Ocean Dipole (bringing above-normal sea surface temperatures) (WFPa 13/11/2023; WFPb 13/11/2023; OCHA 08/11/2023; World Climate Service 09/02/2021). The Kenya Meteorological Department reported that rainfall would peak in November

(VOA 09/11/2023). There is an 80% likelihood that El Niño will continue during the 'long' rainy season (FEWSNET 09/11/2023). This could prolong displacement and impact livelihoods. The previous El Niño fenomenon, which occurred in 2019, resulted in floods and landslides and affected more than 330,000 people, displacing around 160,000 (ACTED 28/10/2023).

Several flood-affected northern counties, including Marsabit, Samburu, and Turkana, have also experienced high levels of intercommunal conflict between pastoralists, aggravated by the recent drought conditions (ACCORD 21/10/2023; OCHA 31/01/2023; ACLED 02/03/2023). Flood-induced loss of livelihoods and displacement may heighten the risk of intercommunal violence. Throughout 2023, Kenya also experienced widespread protests over the high cost of living (ACLED 26/09/2023). There is a risk of continued or increased anti-government protests if the floods aggravate cost-of-living pressues.

Humanitarian constraints

Floods have caused the closure of major roads and bridges in Garissa, Mandera, Samburu, Turkana, Wajir, and other affected counties (ACTED 11/11/2023; OCHA 08/11/2023). As at 6 November, 80% of road infrastructure in Mandera county, including the major A13 road, was affected (FloodList 06/11/2023). The Garissa-Modogashe road was impassable in four places - Jirango, Afueni, Maalamin and Darsalam - as at 9 November. The floods also destroyed a bridge in Kotulo, which connects Mandera and Waji counties (Nation Africa 09/11/2023). Other affected roads include: the Marsabit-Moyale road (Marsabit county), the Mombasa-Changamwe Road (Mombasa county), Meru-Maua Road (Meru county), Kina-Kulamawe Road (Isiolo County), and Marich Pass Road (West Pokot County) (OCHA 08/11/2023).

Violence and insecurity occurs in several flood-affected counties, potentially posing further access constraints. From September-November, the highest number of political violence-related fatalities occurred in Garissa and Samburu, attributed to Al-Shabaab militants and pastoral militants respectively (ACLED 14/11/2023). From July-September, Garissa saw the second-highest number of fatalities, primarily attributed to ethnic militias (ACLED 26/09/2023).

0 **KEY PRIORITIES**

58,000

INFORM CLIMATE **CHANGE RISK SCORE**

FUNDING AND RESPONSE CAPACITY

- · UN agencies, including WHO and WFP
- · The Kenya Red Cross Society has started response activities
- · INGOs. including ACTED and IRC

CRISIS IMPACTS

Shelter

The floods destroyed houses across Mandera, Turkana, Mombasa, and Wajir (AP 03/11/2023; 0CHA 08/11/2023). OCHA reports that displaced families are predominantly sheltering with friends and relatives, rather than in informal settlements (OCHA 08/11/2023). However, another source reports that most of the 20,000 displaced people in Garissa county are sheltering in 'camps' (China Daily 13/11/2023). It is unclear where these camps are, or whether this refers to Dadaab and Hagadera refugee camps in Garissa. In Wajir county, school infrastructure was damaged and some affected households have sheltered in Dela Primary School (OCHA 08/11/2023).

People travelling to Wajir county were stranded along the damaged Garissa-Modogashe road, which was impassable because of the floods. Most of the stranded passengers are women and children who were travelling during the school break (Nation Africa 09/11/2023).

Livelihoods

Flooding and storms damaged commercial services and businesses in Garissa, Mandera, Tana River, and Wajir counties. Orahey market in Wajir municipality was flooded (OCHA 08/11/2023). Producers transporting fruit, vegetables and other perishable goods to Waiir have been stranded by flooding on the Garissa-Modogashe road (Nation Africa 09/11/2023).

By 5 November, flooding had killed over 1,000 livestock and damaged around 221 acres of farmland across Kenya (OCHA 08/11/2023). At the end of October, ACTED projected that flooding would risk the destruction of 828,667 animals in Samburu and 50% of pastureland in Mandera alone (ACTED 28/10/2023). Continued rainfall and flooding in coming months will likely disrupt the harvest of most major crops, which occurs between October and December (US Department of Agriculture accessed 13/11/2023). Authorities have urged farmers near the Tana River to begin harvesting and then evacuate in advance of floodwaters from the overflowing river (KBC 07/11/2023). It is unclear what this will mean for the harvested crops. The rain and floods may also disrupt the crop-drying process (FEWSNET 09/11/2023). Continued rain will increase the risk of water- and vector-borne diseases among livestock, including tryps (a parasitic disease) and diarrhoea (ACTED 28/10/2023).

These negative impacts on livelihoods may offset the potential positive impact of aboveaverage rainfall on water resources and soil moisture in drought-affected counties (WFPa 13/11/2023; WFPb 13/11/2023; ACTED 28/10/2023). As at July 2023, the most severe drought effects were seen in Garissa, Isiolo, Mandera, Marsabit, Samburu, Tana River, Turkana, and Wajir, all of which are now affected by the above-average rainy season (WFP 11/10/2023).

Food security

Damage to agriculture, livestock, and business wil likely increase food insecurity in affected counties. Between October 2023 and January 2024, it is projected that 9% of the population (around 1.5 million people) in Mandera, Marsabit and Turkana counties, which are all affected by the floods, will experience Crisis (IPC Phase 3) levels of food insecurity or higher. These counties are also recovering from prolonged drought. Garissa and Wajir counties, which are also affected by the floods, are projected to face Stressed (IPC Phase 2) levels of food insecurity (FEWSNET 09/11/2023; IPC 01/09/2023).

Prior to the rainy season, milk production from livestock was already below average in Garissa, Marsabit, and Samburu counties (FEWSNET 09/11/2023). Maize and bean prices were high across Kenya because of low local availability and the high costs of production, selling, and cross-border imports (FEWSNET 09/11/2023). Flood-induced damage to livestock and disruption to markets may aggravate both low milk production and high food prices.

WASH and health

Boreholes, shallow wells, and water pans constitute the main water sources in affected counties (ACTED 28/10/2023). As at 8 November, storms and floods had damaged three boreholes and around 230 latrines in Wajir (OCHA 08/11/2023).

Contaminated water and lack of access to WASH facilities has increased the risk of waterborne disease outbreaks (OCHA 08/11/2023). The northern counties are already experiencing a cholera outbreak that began in October 2022, with 12,000 cases reported as at 15 September 2023 (ACTED 28/10/2023; IRC 11/10/2023). Since the onset of the current rainy season, six cholera cases have been reported in Dadaab refugee camp, Garissa county (OCHA 08/11/2023). The previous El Niño season in 2019, caused a cholera epidemic (ACTED 28/10/2023). There are also concerns of malaria outbreaks because of collapsed latrines and stagnant water (FloodList 06/11/2023).

The healthcare system may not be able to cope with an increase in disease, as some hospital facilities have been damaged in the affected counties (ACTED 11/11/2023; VOA 09/11/2023).

Impact on other critical infrastructure

In Mandera South sub-county, rainfall caused a dam to overflow, flooding nearby villages and destroying infrastructure (OCHA 08/11/2023). Authorities reported that the rainfall and floods destroyed electrical transmission lines in unspecified locations (AP 03/11/2023).

Drought and climate

Kenya is highly vulnerable to climate change, particularly floods and droughts, as more than 80% of its land classified as arid or semi-arid (World Bank accessed 14/11/2023). It has an INFORM Climate Change Risk score of 4.6 ('High') (INFORM accessed 14/11/2023).

Since 2020, Kenya has experienced the most severe drought on record because of five consecutive below-average rainy seasons. The Arid and Semi-Arid Lands (ASAL) region was worst affected, including Garissa, Mandera, Samburu, Wajir, and other counties impacted by the current above-normal rainfall and flooding (0CHA 31/01/2023; UNHCR 28/02/2023). The 2023 March-May long rainy season was normal, contributing to recovery in many ASAL counties. However, as at September 2023, 2.8 million people remained in need of humanitarian assistance because of the drought. Five counties remained in 'Alert' phase, including Samburu, Turkana, and Tana River (National Drought Management Agency [NDMA] 08/2023; NDMA 09/2023). The drought in these counties has decreased coping capacities, causing significant food insecurity, the loss of livelihoods from low-level harvests and livestock deaths, and health challenges, including cholera (0CHA 31/01/2023). The drought also damaged the soil, which has aggravated the impact of current flooding (Reuters 09/11/2023).

Political and security situation

In March 2023, violent protests broke out in Kenya over the cost of living, including the removal of subsidies and tax increases. Current Prime Minister William Ruto's government and security forces responded forcefully, with hundreds of protestors arrested, killed and injured. Protests have continued throughout the year, with 85 protest-related violent events recorded between July-September, mostly in southern and western counties (CNN 07/20/2023; ACLED 26/09/2023; The Guardian 21/07/2023).

Kenya is also experiencing a non-international armed conflict with Al-Shabaab, which spilled over the border from Somalia. Al-Shabaab has recently increased its activities in northeastern and coastal Kenya (Rulac accessed 13/11/2023; WFPb 13/11/2023). The proposed drawdown of the African Union peacekeeping mission in Somalia over the coming year risks increasing Al-Shabaab violence in Somalia, with potential cross-border implications for Kenya (Voice of Africa 29/09/2023; France24 22/09/2023).

Kenya hosts a large number of refugees fleeing conflict and drought in neighbouring countries, including Somalia, Ethiopia, and South Sudan. In Garissa county, there is a sizeable Ethiopian and Somali refugee population (OCHA 31/01/2023; UNHCR 28/02/2023; Conciliation Resources accessed 11/13/2023).

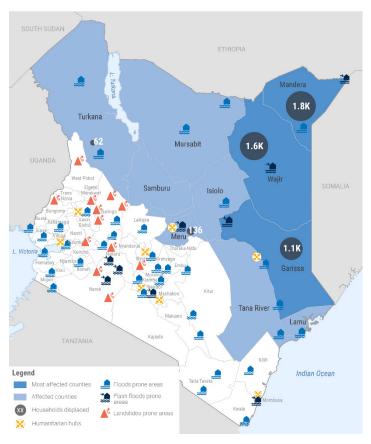
Infrastructure

Infrastructure challenges across Kenya include a lack of adequate road networks and poor quality road construction (Nation Africa 09/11/2023). Poorly maintained infrastructure, including faulty roads and bridges in Isiolu, Meru, and Samburu counties, has increased the risk that people are trapped or swept away by floods (BNN 31/10/2023).

FUNDING AND RESPONSE CAPACITY

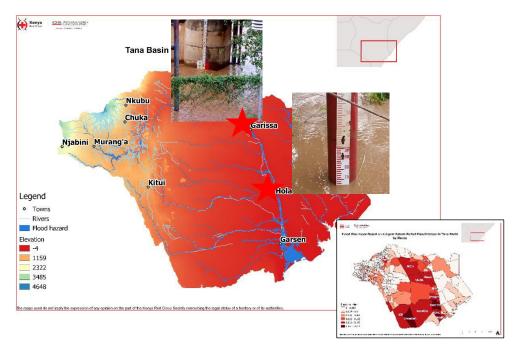
On 4 November, the Kenya Red Cross Society activated its Early Action Protocol for riverine floods, focusing on areas near the Tana River Basin (IFRC 10/11/2023). As at 8 November, the Society had trained flood response teams in 25 high-risk counties, and was pre-positioning supplies in warehouses across relevant areas (OCHA 08/11/2023).

Eight humanitarian hubs have been activated across the country (0CHA 08/11/2023). WHO is collaborating with the Ministry of Health to deliver medical supplies to affected communities (Africa.com 08/11/2023).



Source: OCHA 08/11/2023

Flood hazard around Tana river basin (Tana river and garissa counties) as at 4 November



Source: IFRC 10/11/2023