



Special Report

## El Niño and Positive Indian Ocean Dipole to have Significant Multi-Sectoral Impacts in East Africa

11 October 2023

### KEY MESSAGES

- El Niño conditions are currently present and are forecast to continue through at least early next year. In East Africa, El Niño impacts vary geographically. Across western parts, El Niños are associated with below-normal rains from June to September. Meanwhile, across the Horn of Africa, El Niños are associated with above-normal rains and flooding between October and December. A positive Indian Ocean Dipole (IOD) is also underway and will likely enhance above-average rains in the Horn of Africa.
- In areas recently affected by drought, increased rainfall will likely help to support drought recovery, increasing agricultural production and driving an overall decline in food insecurity. However, in flood-prone and riverine areas, there is a substantial risk of flooding, which could destroy critical infrastructure and assets, cause crop damage and livestock deaths, displace populations, limit humanitarian access, and lead to localized increases in food insecurity.
- Across certain western parts of the region, dry spells observed between June and September, along with conflicts and socioeconomic challenges limiting access to inputs, could reduce agricultural production and exacerbate already very high levels of food and nutrition insecurity.
- Forecast flooding will likely drive additional population displacements in a region with already about 18 million internally displaced persons (IDPs). Displaced populations are particularly vulnerable to food and nutrition insecurity, water-borne diseases, protection and gender-based violence (GBV) risks, and other humanitarian challenges. Persons with disabilities are disproportionately at risk of losing access to life-saving services.
- Floods are likely to reduce access and cause damage to existing water sources and sanitation infrastructures. The combination of damaged infrastructures, contaminated water sources, and population displacements may cause surges in malnutrition.
- Flooding and intense rainfall may cause water- and vector-borne disease outbreaks, as well as damage to or closures of health facilities. This in turn may reduce regular health service delivery and restrict access to healthcare. Likely population displacements and related overcrowding in locations hosting IDPs may further increase the risk of infectious disease outbreaks.
- Most countries already have in place policies, institutions, contingency plans and other initiatives for risk mitigation, preparedness, and emergency response for climate hazards. However, it is critical to urgently revise and/or implement existing tools while ensuring that preparedness, anticipation, and response efforts are informed by climate forecast updates and take into account the increased risks faced by certain vulnerable populations, such as women, girls, and persons with disabilities.

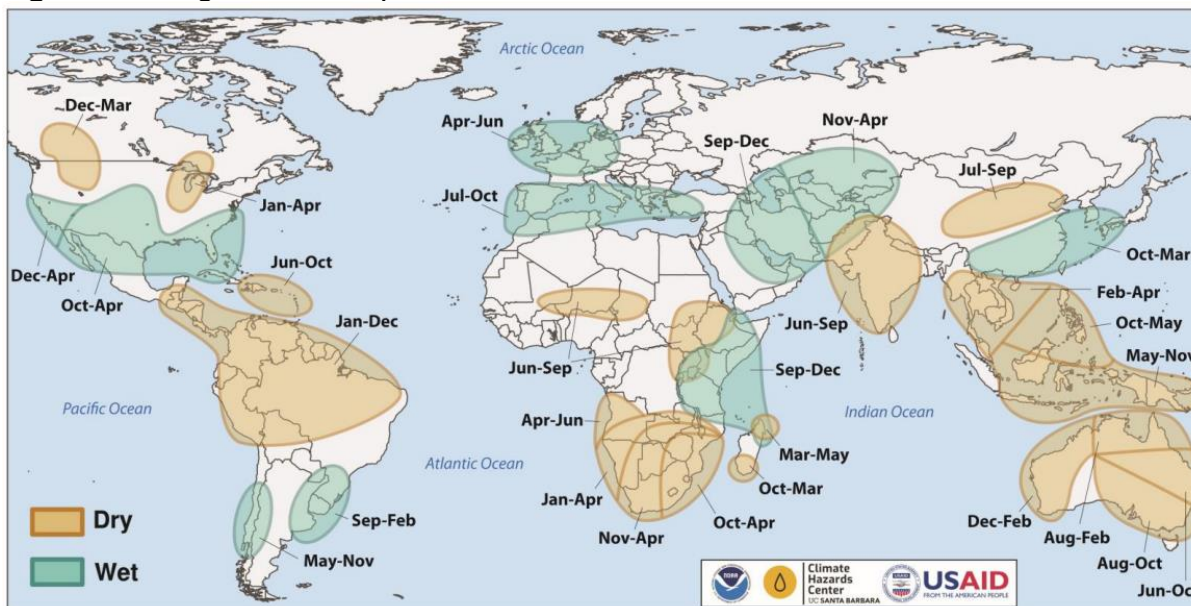
Inputs for this analysis have been provided by:



## BACKGROUND

An El Niño is a global climate phenomenon characterized by atypical warming of sea surface temperatures across the tropical eastern Pacific. An El Niño can have significant impacts on global weather patterns, affecting most regions across the world, with some areas experiencing wetter than usual conditions while other areas experience drier than usual conditions (Figure 1).

**Figure 1.** Timing of wet and dry conditions related to El Niño



Source: Famine Early Warning Systems Network (2020), *El Niño and Precipitation*, Agroclimatology Fact Sheet Series, Vol. 1, pp. 1-2. [https://fews.net/sites/default/files/uploads/2pager\\_elnino\\_FINAL0.pdf](https://fews.net/sites/default/files/uploads/2pager_elnino_FINAL0.pdf)

In East Africa, El Niño impacts vary geographically. Across western parts, including the Sudan, South Sudan, northern Uganda, western Kenya, and most parts of Ethiopia, El Niño events are typically associated with below-normal rains between June and September. Many of the major droughts observed across northern Ethiopia in recent years, for example, were linked to El Niño. Meanwhile, across the Horn of Africa, including Somalia, the arid and semi-arid lands of Kenya, southern and eastern Ethiopia, Uganda, Tanzania, Rwanda, and Burundi, El Niño events are usually associated with above-normal rains and flooding between September and December.<sup>1</sup>

According to the WMO El Niño/La Niña Update, released on 3 July, the tropical Pacific has been experiencing El Niño conditions since June as a result of rapid and substantial changes in oceanic conditions observed in previous months.<sup>2</sup> Furthermore, according to NOAA, as of 14 September, El Niño conditions were present and were anticipated to continue through at least early next year, with a 71 percent probability of a “strong” El Niño.<sup>3</sup>

<sup>1</sup> Famine Early Warning Systems Network (2020). *El Niño and Precipitation*, Agroclimatology Fact Sheet Series, Vol. 1, pp. 1-2. [https://fews.net/sites/default/files/uploads/2pager\\_elnino\\_FINAL0.pdf](https://fews.net/sites/default/files/uploads/2pager_elnino_FINAL0.pdf)

<sup>2</sup> WMO (2023). *WMO El Niño/La Niña Updates*. <https://community.wmo.int/en/activity-areas/climate/wmo-el-ninola-nina-updates#:~:text=Latest%20WMO%20El%20Ni%C3%B1o%2FLa%20Ni%C3%B1a%20Update&text=According%20to%20the%20lat est%20predictions,La%20Ni%C3%B1a%20development%20is%20negligible.>

<sup>3</sup> NOAA (2023). *El Niño/Southern Oscillation (ENS) Diagnostic Discussion*. [Climate Prediction Center: ENSO Diagnostic Discussion \(noaa.gov\)](https://www.climatepredictioncenter.org/ens-diagnostic-discussion)

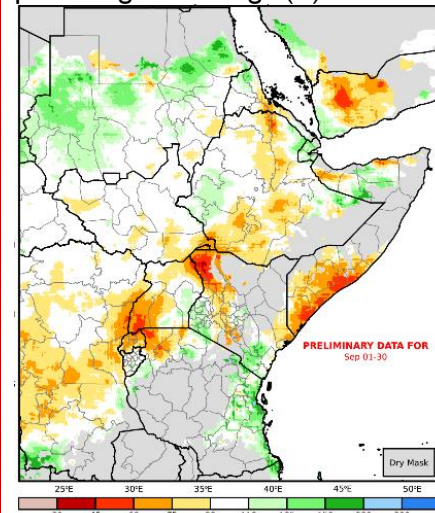
While El Niño events often receive the most global attention, El Niño/La Niña is not the only climate driver that is important for potential rainfall outcomes in East Africa between September and December. A positive Indian Ocean Dipole (IOD) event has recently developed, as announced by Australian Government Bureau of Meteorology, increasing the chances for highly above-average rainfall in eastern areas (eastern Kenya, Somalia, and southeastern Ethiopia).<sup>4</sup> A positive IOD can often co-occur with El Niño and can make wet outcomes more likely due to above-normal sea surface temperatures, enhancing convection in the western tropical Indian Ocean and wind patterns that bring in higher moisture levels into the region.<sup>5</sup>

Across western parts of East Africa (e.g., the Sudan, South Sudan, northern Uganda, western Kenya, and central to northern Ethiopia), significant rainfall typically falls between June and September, which is key for agricultural production. Based on rainfall observed to date, seasonal performance has been mixed between 1 June – 30 September (Figure 2), with above-average to average rains observed across the Sudan, western Ethiopia, Djibouti, and western Eritrea. Meanwhile, below-average cumulative rainfall totals have been observed across western Kenya, southwestern and northern Uganda, Rwanda, southwestern, central, and northern Ethiopia, and coastal Somalia, due primarily to dry conditions between July and September (Figure 4).<sup>6</sup>

Meanwhile, across eastern parts of East Africa, June to September is normally a dry season. However, this year, the season saw above-average air temperatures, which dried out vegetation more quickly than usual. This led to below-average vegetative conditions in many areas (Figure 3).

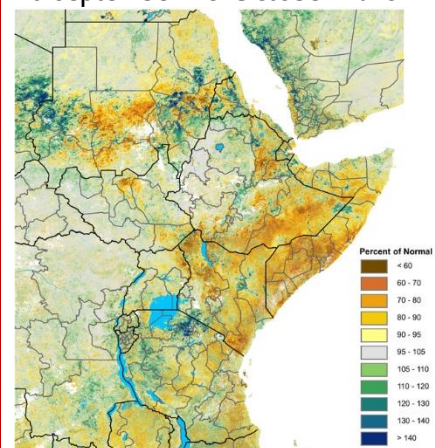
Looking forward, forecasts from major regional and global centres, including the recent Greater Horn of Africa Climate Outlook Forum (GHACOF) and its September update released by the IGAD Climate Prediction and Applications Center (ICPAC), agree that there is an increased probability of above-average rains across the Horn of Africa during the October to December season (Figure 5). For more information, please see the GHACOF 65 technical statement, which can be found [here](#).

**Figure 2.** Seasonal rainfall for 1 June - 30 September 2023, percentage of average (%)



Source: UCSB CHC

**Figure 3.** Normalized difference vegetation index (NDVI) anomalies, 26 September - 5 October 2023



Source: USGS/FEWS NET

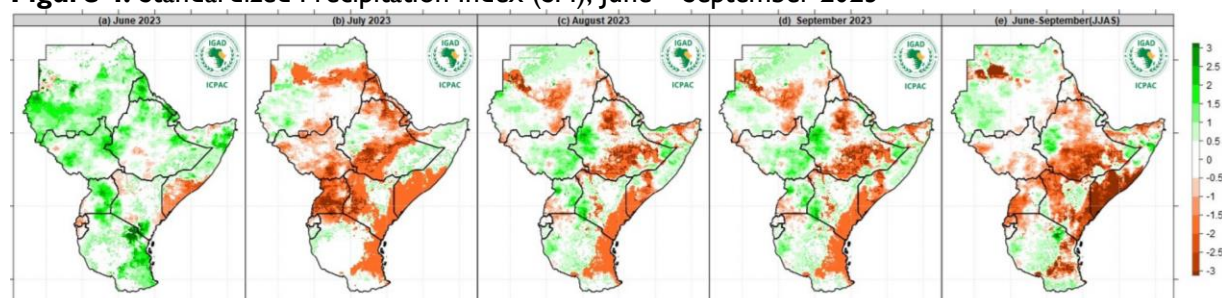
<sup>4</sup> Australian Government Bureau of Meteorology (2023). *Climate Model Summary for September to January 2024*. <http://www.bom.gov.au/climate/model-summary/#tabs=Indian-Ocean&region=NINO34>

<sup>5</sup> Hameed, S. (2018). *The Indian Ocean Dipole*.

<http://climatescience.oxfordre.com/view/10.1093/acrefore/9780190228620.001.0001/acrefore-9780190228620-e-619>

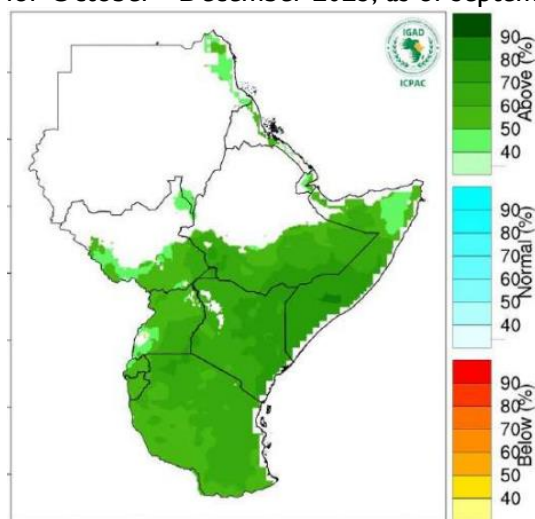
<sup>6</sup> UCSB CHC. (2023). *CHIRPS Season Precipitation Percent of Average (%), 1 June - 25 Sep 2023*. [PON Current.png \(1362x1627\)](https://pon.ucsb.edu/pon-current.png) ([ucsb.edu](https://pon.ucsb.edu))

**Figure 4. Standardized Precipitation Index (SPI), June – September 2023**



Source: ICPAC

**Figure 5. Seasonal forecast for October - December 2023, as of September 2023**



Source: ICPAC

## CURRENT SITUATION AND LIKELY IMPACTS BY SECTOR

### Agriculture

In central and southern parts of East Africa, including Burundi, Rwanda, southeastern Kenya, Somalia, Uganda, and southern South Sudan, harvesting of the 2023 main season cereal crops concluded between June and July. The March–May rainy season was characterized by average to above-average cumulative precipitation over most cropping areas, but the temporal distribution of rains was significantly erratic, with a negative impact on crop development and cereal production, especially in Somalia, southeastern Kenya, and Uganda.

In key cropping areas of southern Somalia and in southeastern marginal agriculture areas of Kenya, the “Gu/long” rains were particularly poor. In these areas, rainfall during most of the growing period was below average, except for some heavy showers in April and May, which accounted for more than half of the seasonal cumulative precipitation and triggered flash floods. Additionally, in Somalia, abundant rains in upstream areas in Ethiopia resulted in the overflow of the Jubba and Shabelle rivers, with significant crop losses in key producing riverine areas.

In Uganda, yields were affected by prolonged dry spells in April and May, both in bimodal areas which cover most of the country and in the unimodal, northeastern Karamoja sub-region, where crops are harvested from September.<sup>7</sup>

In South Sudan, above-average rains were received in Western Equatoria State, while below-average precipitation amounts resulted in crop wilting in parts of Central and Eastern Equatoria states, with a negative impact on first season crop yields.

By contrast, in Rwanda and Burundi, the “2023B” season harvests were estimated at average to above-average levels, as the February – May rainy season was characterized by low rainfall amounts in February, followed by abundant precipitation during the remainder of the cropping season. These favorable rains offset the earlier rainfall deficits and lifted production prospects.

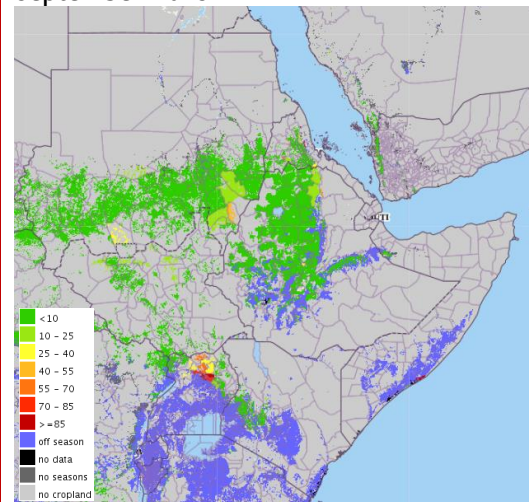
In Ethiopia, the 2023 “Belg” season in southern Tigray, eastern Amhara, eastern Oromiya and northeastern Southern Nations, Nationalities and Peoples (SNNP) regions benefited from abundant seasonal rainfall amounts, up to twice the long-term average. The cereal harvest is estimated at above-average levels, despite localized flood-induced crop losses in Oromiya and SNNP regions.

In pastoral areas of southern and eastern Ethiopia, Somalia, and northern and eastern Kenya, where a multi-season severe drought resulted in the death of 13.2 million animals, rangeland conditions recovered substantially by mid-2023 due to average to well-above average March–May rains over most areas. As a result, there has been a significant improvement in livestock body conditions<sup>8</sup>. However, above-average air temperatures dried out vegetation more quickly than usual during the recent June – September dry season, leading to below-average vegetative conditions in many areas. Additionally, livestock recovery from the drought will take years given the magnitude of livestock losses.

In northern parts of the IGAD region, including northern Ethiopia, Eritrea, the Sudan, and central and northern South Sudan, crops were planted in June and harvesting operations are starting now. In Ethiopia, the June - September “Kiremt” season, which drives the main “Meher” harvest, was characterized by adequate rains over most key western cropping areas, while below-average rains were received in parts of eastern Amhara, central and eastern Oromia and SNNP regions. Although monitoring suggest that crops have not been significantly affected by dryness (Figure 6), in areas where precipitation deficits occurred along with input access constraints and low planting rates due insecurity (parts of Amhara, Oromia, and Benishangul Gumuz regions), significant crop production shortfalls are expected.

In the Sudan, 2023 crop production is expected to be impacted by the conflict in terms of insecurity and constraints in access to key inputs, coupled with an erratic temporal and spatial distribution of seasonal

**Figure 6. Agriculture Stress Index, 20 September 2023**



Source: FAO

<sup>7</sup> FAO (2023). *GIEWS Country Brief: Uganda, 17-July-2023*. <https://reliefweb.int/report/uganda/giews-country-brief-uganda-17-july-2023>

<sup>8</sup> FAO (2023). *Crop Prospects and Food Situation – Quarterly Global Report, No. 2, July 2023*. <https://www.fao.org/3/cc6806en/cc6806en.pdf>

rains. The rainy season was also characterized by an erratic distribution in central and northern unimodal rainfall areas of South Sudan. However, the rainfall deficits had no major adverse effects on vegetation conditions. In Eritrea, above-average rains in June were followed by dry conditions in July. More favorable rains in August improved vegetation conditions and lifted crop prospects, but some damage is likely to be irreversible and localized crop production shortfalls are expected. In unimodal, major growing areas of southwestern Kenya, the 2023 “long-rains” main season crops, planted in March and harvested from October, was estimated to be 5 – 10 percent below the five-year average nationally, but with certain areas that faced dry spells experiencing more substantially below-average production.<sup>9</sup>

The desert locust situation across East Africa remains calm, despite some hopper groups, small bands and groups, and swarms observed in eastern Sudan, as well as a few isolated adults seen in northwestern Somalia and a small immature swarm seen in eastern Ethiopia. Though some locusts from the interior of Sudan are expected to move towards the Red Sea coast and small-scale breeding could occur in Eritrea and northwest Somalia, the forecasts suggest a continuation of relatively calm conditions.<sup>10</sup> The situation is, however, being closely monitored. Based on historical data, a clear and definitive association between El Niño and La Niña conditions and Desert Locust upsurges has not been identified.<sup>11</sup>

Looking forward, over Somalia, southern Ethiopia, Kenya, the Lake Victoria basin and to a lesser extent southern South Sudan, Uganda, Rwanda, and Burundi, forecasted above-average October to December rains, if they materialize, would boost yields and result in above-average cereal production during the upcoming cropping seasons, despite likely substantial but localized flood-related losses. Abundant October-December rains would also boost recovery from an exceptionally prolonged, widespread, and intense drought between 2020 and early 2023 in pastoral areas of southern Ethiopia, most of Somalia, and northern and eastern Kenya. However, livestock losses are likely in flood-affected areas due to drownings and vector and water-borne diseases, while a full recovery from the massive livelihood losses caused by the drought will necessitate several good rainy seasons.

Heavy October-December rains will likely also have a negative knock-on effect on the flood situation in South Sudan. Heavy rains over the Lake Victoria basin will result in rising water levels, which are already higher than 2022 and average levels due to above-average precipitation received in the first half of 2023. These high levels will increase water levels of the White Nile that flows from Lake Victoria through Uganda and through South Sudan, where it crosses the Greater Upper Nile region. This heightens the risk of a fifth consecutive year of exceptionally widespread floods, due to the overflow of the river and an expansion of permanently flooded areas in an area of South Sudan characterized by the highest cereal production deficit and the highest prevalence and severity of acute food insecurity.<sup>12</sup>

### **Conflict and climate induced displacements**

As of August 2023, about 18 million people were internally displaced across the IGAD region, according to data from IOM, the Somalia IDP working group, and IDMC, with the largest IDP populations in the Sudan

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<sup>9</sup> Kenya Food Security Steering Group (2023). *The 2023 Long Rains Season Assessment Report*.

<sup>10</sup> FAO (2023). *Desert Locust Bulletin: General situation during September 2023 and forecast until mid-November 2023*. [DL540e.indd \(fao.org\)](#)

<sup>11</sup> FAO (2023). *El Niño and Desert Locust*. [El Niño and Desert Locust \(fao.org\)](#)

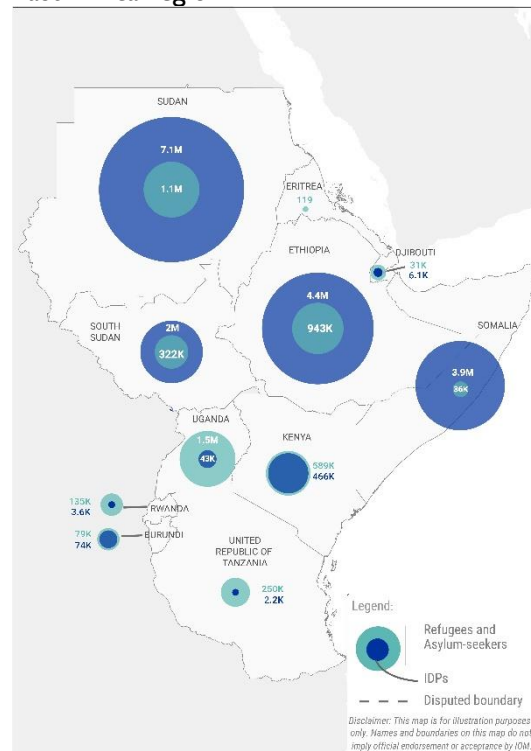
<sup>12</sup> WFP (2023). *South Sudan Seasonal Monitor, May 2023*. <https://docs.wfp.org/api/documents/WFP-0000149753/download/#:~:text=mid%20Feb%20%E2%80%93%20early%20May%202023&text=Note%20much%20increased%20rainfall%20during,South%20Sudan%20towards%20August%2D%20September>.

(7.1 million)<sup>13</sup>, Ethiopia (4.4 million), Somalia (3.9 million), South Sudan (2 million), Kenya (0.5 million) and Uganda (43,000).<sup>14</sup> Moreover, there are 79,700 IDPs in the non-IGAD countries of Burundi (73,900), Rwanda (3,600) and United Republic of Tanzania (2,150) (Figure 7).<sup>15</sup> In many cases, displacement is linked to climatic shocks, with 89 percent<sup>16</sup> of displaced people in Burundi and 32 percent<sup>17</sup> in Ethiopia displaced by natural hazards (drought, floods, landslides, etc.), as of June 2023. Similarly, as of August 2023, there were around 7,600 IDPs in Uganda due to natural disasters<sup>18</sup>. Flooding in the western and northern provinces of Rwanda in May 2023 also displaced more than 18,000 people from their homes, who were temporarily sheltered in 73 sites<sup>19</sup>.

Internal displacement linked to natural hazards tends to be prolonged over time in many of the above countries. Furthermore, regardless of the drivers of displacement, displaced populations are particularly vulnerable to the impacts and risks associated with climatic events, such as El Niño, as shown by the country-specific information below:

**Djibouti:** According to the Index for Risk Management, Djibouti is highly likely to require international assistance in the near future due to climate hazards<sup>20</sup>. Since 1977, Djibouti has faced at least nine extreme flood events affecting over a million people, unhousing 33,500 people and causing 250 deaths<sup>21</sup>.

**Figure 7. IDP and refugee populations in the East Africa region**



Source: Burundi: DTM (July 2023). Rwanda: IDMC (Dec 2022). United Republic of Tanzania: IDMC (Dec 2022); Ethiopia: IOM (Nov 2022–June 2023). Kenya: IOM (Sep 2022–Feb 2023). Somalia: IDP Working Group (2023); South Sudan: IOM (Sep 2023); Sudan: IOM (Aug 2022); Uganda: IDMC (Dec 2022)

<sup>13</sup> IOM DTM (2023). See: <https://www.iom.int/news/internal-displacement-sudan-nearly-doubles-onset-conflict>.

<sup>14</sup> Djibouti: IOM DTM Mobility Tracking Assessment Round 1 (Sep 2022); Eritrea: No data; Ethiopia: IOM DTM National Displacement Report 16 (Nov 2022–Jun 2023); Kenya: IOM DTM Round 1 (Sep 2022–Feb 2023). Somalia: IDP Working Group (Feb 2023); South Sudan: IOM DTM Mobility Tracking Round 14 (Sep 2023); Sudan: IOM DTM Round 6. See also: <https://www.iom.int/news/internal-displacement-sudan-nearly-doubles-onset-conflict>; Uganda: IDMC (Dec 2022). Accessed 4 October 2023.

<sup>15</sup> Burundi: Displacement Dashboard (July 2023); Rwanda: Internal Displacement Monitoring Centre. (2022). <https://www.internal-displacement.org/database/displacement-data>; United Republic of Tanzania: Internal Displacement Monitoring Centre. (2022). <https://www.internal-displacement.org/database/displacement-data>.

<sup>16</sup> IOM (2023). DTM Burundi Displacement Dashboard (July 2023) <https://dtm.iom.int/reports/burundi-displacement-dashboard-july-2023?close=true>

<sup>17</sup> UNHCR (2023). UNHCR Ethiopia Refugee and IDP Statistics as of June 2023. <https://data.unhcr.org/en/documents/details/101982>.

<sup>18</sup> IOM (2023). Uganda – Info Sheet: Multi-Hazard Response/DRR Platform (August 2023). <https://dtm.iom.int/reports/uganda-info-sheet-multi-hazard-responsedrr-platform-august-2023?close=true>

<sup>19</sup> Government of Rwanda (2023). Emergency Response Plan, May 2023, Landslides and Floods. <https://reliefweb.int/disaster/fl-2023-000064-rwa>

<sup>20</sup> INFORM (2022). INFORM Risk Index 2023. <https://drmkc.jrc.ec.europa.eu/inform-index>

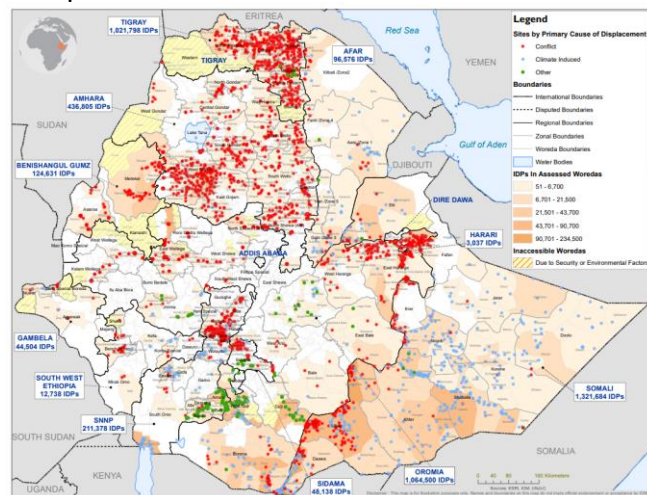
<sup>21</sup> EM-DAT, CRED/UCLouvain (2023). EM-DAT: The International Disaster Database. Accessed 5 October 2023. [www.emdat.be](http://www.emdat.be)

**Ethiopia:** As of June 2023, 4.4 million people were displaced (Figure 8).<sup>22</sup> Of this population, around 811,000 reported the primary driver to be drought, largely in the regions of Somali, Oromia, and Afar.<sup>23</sup> Additionally, between April and June 2023, over 355,000 people were impacted by flooding, many in the same regions affected by drought (Somali and Oromia) and 8,000 cases of cholera were reported due to floodwaters, displacement, and devastated WASH infrastructure.<sup>24</sup>

**Kenya:** Kenya has weathered five consecutive seasons of drought, which has driven significant needs among affected populations. As of June 2023, DTM has tracked around 465,700 people arriving in drought-affected areas of Kenya in search of assistance, namely in the northern counties of Garissa, Isiolo, Marsabit, Samburu and Turkana.<sup>25</sup> In these counties, 76 percent of assessed locations and 6.4 million people were affected by drought.<sup>26</sup> In addition, Kenya saw flash and riverine flooding from March to May 2023 that affected 163,000 people, predominantly in the eastern and northeastern part of the country.<sup>27</sup> Flood waters, displacement and damage to WASH infrastructure have contributed to increased risk of water-borne diseases, with around 11,000 recorded cases of cholera, including in Daadab Camp.<sup>28</sup>

**Somalia:** Between January and September 2023, 1.5 million people were newly displaced in Somalia.<sup>29</sup> This represents a 10 percent increase in displacements compared to the same period in 2022, partially attributable to a surge in conflict displacements in 2023. In addition to protracted conflict, Somalia has grappled with several consecutive seasons of drought. Between 2021 and 2023, 1.8 million people were displaced by drought, while in 2023, 3.9 million IDPs were tracked in drought-affected areas.<sup>30</sup> In mid-2023, drought conditions gradually abated, while large numbers of people were instead pushed on the move due to flooding. Indeed, of the above mentioned 1.5 million displacements, over half (57 percent) were driven by floods (419,000) and drought (472,600). Regions affected by floods include some that were

**Figure 8.** Displacement caseload in accessible sites in Ethiopia



Source: IOM

<sup>22</sup> IOM (2023). *Ethiopia — National Displacement Report 16 (November 2022 – June 2023)*.

<https://dtm.iom.int/reports/ethiopia-national-displacement-report-16-november-2022-june-2023>

<sup>23</sup> IOM (2023). *Horn of Africa Drought: Human Mobility Snapshot (Jan – June 2023)*.

<sup>24</sup> OCHA (2023). *Eastern Africa: Regional Flood Snapshot (June 2023)*. <https://reliefweb.int/report/ethiopia/eastern-africa-regional-flood-snapshot-june-2023>.

<sup>25</sup> IOM (2023). *Kenya — Horn of Africa Drought: Human Mobility Snapshot (January - June 2023)*.

<https://dtm.iom.int/reports/horn-of-africa-drought-human-mobility-snapshot-january-june-2023>

<sup>26</sup> IOM (2023). *Horn of Africa Drought: Human Mobility Snapshot (January - June 2023)*.

<https://eastandhornofafrica.iom.int/resources/horn-of-africa-drought-human-mobility-snapshot-january-june-2023>.

<sup>27</sup> OCHA (2023). *Eastern Africa: Regional Flood Snapshot (June 2023)*. <https://reliefweb.int/report/ethiopia/eastern-africa-regional-flood-snapshot-june-2023>.

<sup>28</sup> Ibid.

<sup>29</sup> UNHCR (2023). *Protection & Return Monitoring Network: Somalia*. <https://prmn-somalia.unhcr.org/>. Accessed 5 October 2023.

<sup>30</sup> IOM (2023). *Horn of Africa Drought: Human Mobility Snapshot (January - June 2023)*.

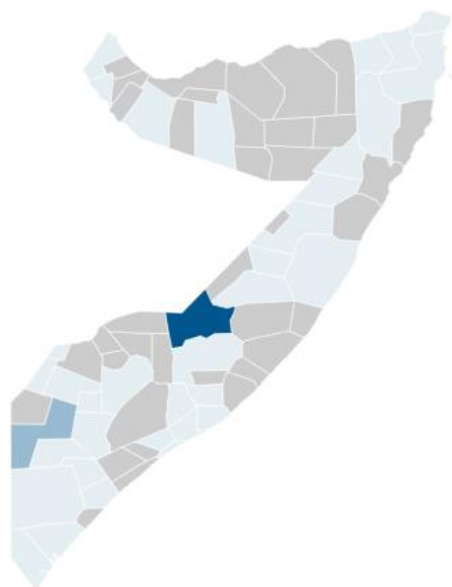
<https://eastandhornofafrica.iom.int/resources/horn-of-africa-drought-human-mobility-snapshot-january-june-2023>.



previously affected by drought,<sup>31</sup> with the southern regions of Bay and Gedo amongst the top three regions affected for both floods and drought. More specifically, the regions with the greatest number of people displaced by floods were Hiraan (260,800), Gedo (100,900), Bay (22,300), Galgaduud (8,600) and Nugaal (5,900) (Figure 9).<sup>32</sup> In flood-affected areas, the top need was identified to be food (39 percent), closely followed by shelter (38 percent) and livelihood support (20 percent). Meanwhile, the top regions seeing people displaced by drought were Gedo (120,350), Bay (89,700), Banadir (86,800), Bakool (45,400) and Middle Juba (41,950). Across these locations, food (40 percent) was the most reported need, followed by shelter (37 percent) and livelihood support (16 percent)<sup>33</sup>.

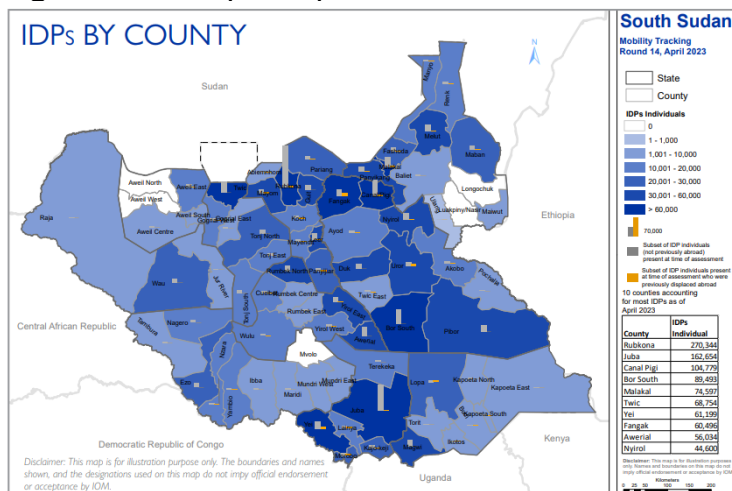
*South Sudan:* South Sudan has experienced persistent flooding in parts of the country since July 2022, affecting over one million people.<sup>34</sup> Many affected people face concurrent resurgent intercommunal violence and environmental disasters that have driven substantial assistance needs. As of April 2023, around two million IDPs were recorded (Figure 10)<sup>35</sup>. Of these, a majority (73 percent) resided with host communities, while around a quarter (27 percent) lived in displacement sites. Most lived in the regions of Unity, Jonglei and Central Equatoria.

**Figure 9.** Districts hosting IDPs displaced by flooding in Somalia



Source: UNHCR/Protection & Return Monitoring Network

**Figure 10.** IDPs by county in South Sudan



Source: IOM DTM South Sudan

<sup>31</sup> OCHA (2023). *Eastern Africa: Regional Flood Snapshot (June 2023)*. <https://reliefweb.int/report/ethiopia/eastern-africa-regional-flood-snapshot-june-2023>.

<sup>32</sup> UNHCR (2023). *Protection & Return Monitoring Network: Somalia*. <https://prmn-somalia.unhcr.org/>. Accessed 5 October 2023.

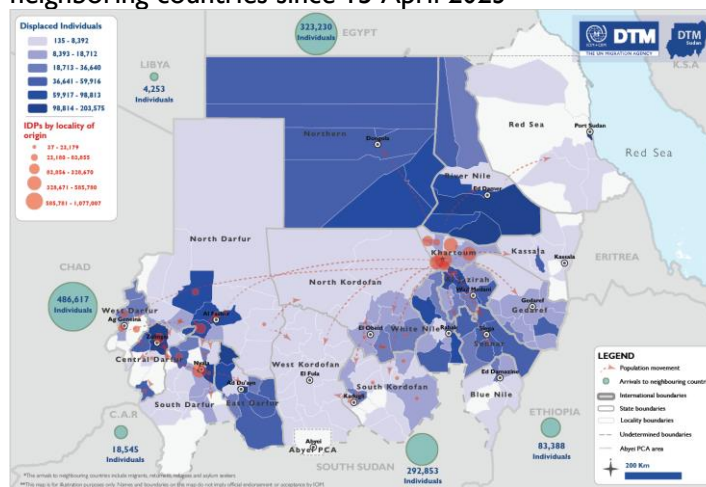
<sup>33</sup> Ibid.

<sup>34</sup> OCHA (2023). *Eastern Africa: Regional Flood Snapshot (June 2023)*. <https://reliefweb.int/report/ethiopia/eastern-africa-regional-flood-snapshot-june-2023>.

<sup>35</sup> IOM (2023). *South Sudan — Mobility Tracking Round 14 Initial Data Release*. [South Sudan — Mobility Tracking Round 14 Initial Data Release | Displacement Tracking Matrix \(iom.int\)](https://www.iom.int/south-sudan-mobility-tracking-round-14).

*The Sudan:* The Sudan saw around 90,000 people displaced by flooding in 2022.<sup>36</sup> As of 17 August, OCHA reports that 13,500 people have been affected by floods and heavy rainfall episodes in North Darfur, Northern, and White Nile states.<sup>37</sup> This has driven urgent needs in the country where people face compounding crises of climate disasters and armed conflict. Prior to the conflict, IOM DTM estimated a total of 3.8 million IDPs, predominantly in Darfur.<sup>38</sup> Since the onset of the conflict between the Sudanese Armed Forces and the Rapid Support Forces on 15 April 2023, over 4.4 million people have been internally

**Figure 11.** Displacement across the Sudan and into neighboring countries since 15 April 2023



Source: IOM DTM Sudan

displaced by clashes across the Sudan, as of 30 September 2023 (Figure 11).<sup>39</sup> This figure has consistently increased since the initial outbreak of violence.<sup>40</sup> IDPs have been identified in all 18 states, with the largest numbers identified in River Nile (11.6 percent), South Darfur (11.4 percent) and East Darfur (11.3 percent). The largest share of individuals (39 percent) reported an intention to remain in the location in which they were displaced within the next three to six months, with one quarter (24 percent) undecided and one fifth (18 percent) intending to return to their place of origin.<sup>41</sup> Most IDP households resided in host communities (66 percent), followed by rented accommodations (9 percent) and schools or other public buildings (9 percent). In addition to internal movements, the conflict has driven cross-border movements of 1.2 million people, predominantly to Chad (40 percent), followed by Egypt (27 percent) and South Sudan (24 percent)<sup>42</sup>.

*Uganda:* From April to August 2023, Uganda was affected by below-average rainfall, although abnormally high rainfall affected people in pockets of the southwest and east of the country.<sup>43</sup> As of July 2023, 74,800 people were affected by storms (63 percent), floods (35 percent), and wet mass movements (2 percent).<sup>44</sup> More than half of affected people (65 percent) were in the Western region between January and July 2023. Disaster displacements have steadily increased over the years, with 22,000 such displacements

<sup>36</sup> OCHA (2023). *Eastern Africa: Regional Flood Snapshot (June 2023)*. <https://reliefweb.int/report/ethiopia/eastern-africa-regional-flood-snapshot-june-2023>.

<sup>37</sup> OCHA (2023). *Sudan Situation Report, 17 August 2023*. <https://reliefweb.int/report/sudan/sudan-situation-report-17-august-2023-enar>

<sup>38</sup> IOM (2023). *Sudan — Mobility Tracking - Round Six*. <https://dtm.iom.int/reports/dtm-sudan-mobility-tracking-round-six>

<sup>39</sup> IOM (2023). *DTM Sudan – Weekly Displacement Snapshot 4*. [DTM Sudan - Weekly Displacement Snapshot 5 | Displacement Tracking Matrix \(iom.int\)](https://dtm.iom.int/reports/dtm-sudan-weekly-displacement-snapshot-4).

<sup>40</sup> IOM (2023). *Sudan*. <https://dtm.iom.int/sudan>. Accessed 5 October 2023.

<sup>41</sup> IOM (2023). *DTM Sudan – Monthly Displacement Overview (September 2023)*. <https://dtm.iom.int/reports/dtm-sudan-monthly-displacement-overview-01>

<sup>42</sup> IOM (2023). *DTM Sudan – Weekly Displacement Snapshot 5 (Oct 2023)*. <https://dtm.iom.int/reports/dtm-sudan-weekly-displacement-snapshot-5?close=true>

<sup>43</sup> OCHA (2023). *Eastern Africa: Regional Flood Snapshot (June 2023)*. <https://reliefweb.int/report/ethiopia/eastern-africa-regional-flood-snapshot-june-2023>.

<sup>44</sup> IOM (2023). *Uganda - Multi-Hazard Response/DRR Platform (July 2023)*. <https://dtm.iom.int/datasets/uganda-multi-hazard-responserdr-platform-jan-july-2023>.

from 2008 to 2012, 178,000 displacements from 2013 to 2017, and 406,000 displacements from 2018 to 2022.<sup>45</sup>

### Gender-based violence

Displacement following natural hazards creates significant risks for affected populations, especially women and girls, as they are uprooted from their social networks. According to WHO, women and girls are more vulnerable to sexual abuse in disaster situations and may be coerced or forced into having sex in exchange for basic needs, such as food, shelter, and security<sup>46</sup>. Several reports suggest that the safety of women experiencing violence in the home may be compromised in the aftermath of disaster. These women often lack social support networks, becoming even more socially isolated, may lack information on evacuation warnings, and may not have access to disaster relief<sup>47</sup>.

As underscored in a global study by IFRC, sexual violence often peak when people are displaced by disasters, and negative coping strategies, including transactional sex, child/early marriage, and trafficking, increase because people are left poorer and more vulnerable to exploitation.<sup>48</sup> For example, more than 124 girls were forced into marriage in 12 villages of Mossurize district of Mozambique in the aftermath of Cyclone Idai in 2019<sup>49</sup>. In addition, people displaced by disasters, particularly those living in temporary shelters, are at increased risk of sexual assault by strangers<sup>50</sup>.

Given additional climate risks relating to the forecast El Niño and positive Indian Ocean Dipole, protection and GBV related challenges must be emphasized. More specifically, anticipatory actions and emergency response programmes should fully mainstream protection and GBV and anticipate the likely protection challenges that the region will likely face, particularly in the context of further climate-related displacements.

### Risks faced by persons with disabilities

In humanitarian emergencies, persons with disabilities are often among those most impacted, including being at heightened risk of violence, exploitation, and abuse. However, persons with disabilities face a range of barriers that hinder their access to humanitarian assistance<sup>51</sup>, as well as preparedness actions. For example, a wheelchair user may encounter physical barriers, such as damaged or flooded roads while trying to flee during a crisis. These vulnerabilities are often exacerbated when factors, such as age, gender, and type of impairment, are considered.

Ensuring that considerations for disability inclusion are integrated during preparedness planning is essential to establish capacities, resources and plans for an inclusive emergency response and recovery

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<sup>45</sup> **Internal Displacement Monitoring Centre** (2022). *Global Internal Displacement Database*. <https://www.internal-displacement.org/database/displacement-data>. Accessed 4 October 2023.

<sup>46</sup> **WHO** (2002). *Gender and Health in Disasters*. [https://www.who.int/gender/other\\_health/genderdisasters.pdf](https://www.who.int/gender/other_health/genderdisasters.pdf).

<sup>47</sup> Ibid.

<sup>48</sup> **IFRC** (2015). *Unseen, unheard: Gender-based violence in disasters - global study*. [Unseen, unheard: Gender-based violence in disasters – Global study \(ifrc.org\)](https://www.ifrc.org/publications/unseen-unheard-gender-based-violence-in-disasters-global-study)

<sup>49</sup> **Save the Children** (2019). *Double Disasters: The effect of cyclones Idai and Kenneth on child marriage in Mozambique*. [https://mozambique.savethechildren.net/sites/mozambique.savethechildren.net/files/library/POLICY%20BRIEF\\_EN.pdf](https://mozambique.savethechildren.net/sites/mozambique.savethechildren.net/files/library/POLICY%20BRIEF_EN.pdf).

<sup>50</sup> **IFRC** (2015). *Unseen, unheard: Gender-based violence in disasters - global study*. [Unseen, unheard: Gender-based violence in disasters – Global study \(ifrc.org\)](https://www.ifrc.org/publications/unseen-unheard-gender-based-violence-in-disasters-global-study)

<sup>51</sup> **DFID** (2019). *Guidance on strengthening disability inclusion in Humanitarian Response Plans*. Available at: <https://reliefweb.int/report/world/guidance-strengthening-disability-inclusion-humanitarian-response-plans>

from the start, which will reduce the risks faced by children with disabilities and their families. Strengthening disability inclusion in preparedness is often less costly and complex than building in disability inclusion after the onset of an emergency. Further, involving persons with disabilities themselves in preparedness planning can also help to build resilience and reduce the impact of future disasters and emergencies.

## Market conditions

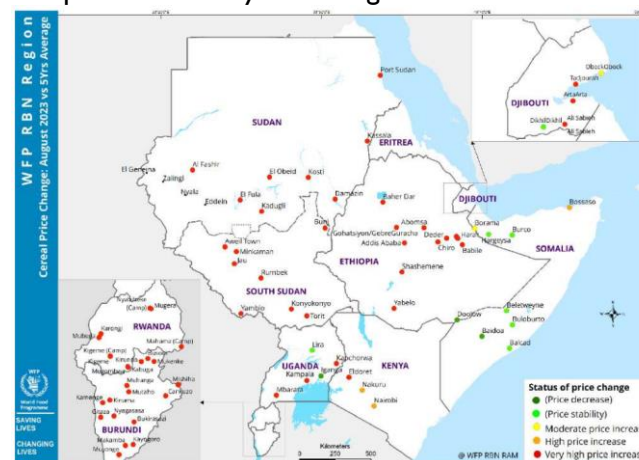
Prices of coarse grains remain at very high levels in East Africa (Figure 12). This upward pressure on prices is due to the combined effects of conflicts across parts of the region, macroeconomic challenges including currency depreciations, climatic shocks that have driven a tightening of cereal supplies, and the impact of the war in Ukraine, which increased fuel and fertilizer prices, inflating transport, and production costs.

In South Sudan's capital, Juba, prices of maize and sorghum, after having seasonally increased between April and June by 18 and 13 percent, respectively, declined by 5 percent and leveled off between July and August, respectively, as the first harvest in southern bimodal areas improved market supplies. However, nominal food prices in August were at exceptionally high levels, with those of maize and sorghum up 32 and 46 percent, respectively, compared to their already high year-earlier values and more than 100 times those in July 2015, before the currency collapse.<sup>52</sup> Underlying the high food prices are insufficient supplies due to low local production and reduced imports and the continuously difficult macroeconomic situation due to low foreign currency reserves and a weak national currency.

In the Sudan, prices of main staples (sorghum and millet) declined by 6 to 18 percent in July 2023 as the conflict severely constrained household purchasing power and hence demand, after having surged between April and June in several markets due to conflict-related trade and market disruptions. Despite the recent decreases, prices in July 2023 were close to the very high year-earlier values and up to almost four times the levels of two years earlier.<sup>53</sup> These high food prices are due to the combined effects of trade and market disruptions caused by the ongoing conflict, a difficult macroeconomic situation already before the conflict, and high prices of fuel and agricultural inputs inflating production and transport costs.

In Ethiopia, prices of locally produced maize increased by 4–26 percent following seasonal trends between January and May 2023. They were also up by 30-60 percent compared to the same time last year and were at near record high levels.<sup>54</sup> The high cereal prices are mainly due to the continuous depreciation of the national currency, which increased prices of imported fuel and inputs, in addition to conflict-related trade disruptions in some areas.

**Figure 12.** Cereal price change from August 2023 compared to the 5-year average



<sup>52</sup> FAO (2023). *Food price monitoring and analysis tool (FPMA)*. Accessed 25 September 2023. [FPMA Tool V4 \(fao.org\)](https://www.fao.org/FPMA-Tool-V4)

<sup>53</sup> Ibid.

<sup>54</sup> FAO (2023). *Food price monitoring and analysis tool (FPMA)*. Accessed 25 September 2023. [FPMA Tool V4 \(fao.org\)](https://www.fao.org/FPMA-Tool-V4)

In Kenya, prices of maize increased seasonally between January and May by 18 to 43 percent in southwestern key growing areas of Rift Valley and in the capital, Nairobi. Prices have since declined as traders release their stocks in anticipation of the “long rains” harvest but remained above last year’s levels in Eldoret and Nairobi by 12 and 7 percent, respectively. Prices in Nakuru, by contrast, were down by 14 percent compared to last year’s extremely high levels, when a spike was observed due to tight domestic supplies linked partially to the drought.<sup>55</sup>

In Uganda, the national average price for maize increased by 23 percent between January and June, and then declined by 23 percent between June and August as the first season harvest increased market availability. Prices in August were 19 percent below the very high year-earlier values but remained 55 percent above levels from two years ago,<sup>56</sup> due to tight supplies caused by consecutive below-average harvests, sustained export demand and high fuel prices.

The national average price for maize in Rwanda (in September) and Burundi (in August) increased by 2 and 4 percent compared to the previous month and were 25 and 27 percent higher a year ago, respectively. This was mainly due to weak local currencies, resulting in high prices of inputs, including fuel, which boosted production costs.

In Somalia, maize and sorghum prices were either stable or in decline between June and July, due to the main “Gu” harvest that increased supplies, along with sustained humanitarian assistance and regional imports that exerted further downward pressure. Prices of maize and sorghum were generally below the very high levels of a year earlier, but up significantly (up to 58 percent) compared to two years ago.<sup>57</sup>

Depending on the scale of flooding, the implication on the food supply chain could either be short lived or long term. With the already elevated food prices across the region driven by multiple factors, the risk of floods would only aggravate the situation in flood-affected areas, leading to high food price volatility besides limited physical access to markets for both traders and consumers in the short run. Moreover, livelihood disruptions, such as the loss of livestock and businesses, in affected areas would also have negative implications on the food supply chain and consequently, food security outcomes. Should crops be destroyed or planting season be disrupted, the implication on markets with regard to supply and pricing would last for several months post flooding in affected areas.

In crop-producing areas not prone to floods, above-average rains could drive increased production, which could improve market supply and, in turn, drive declining prices. Food access might increase for both households consuming their own production and for those who depend on market purchases.

### **Water, sanitation, and hygiene (WASH)**

Challenges with WASH access continue as recent data for East and Southern Africa (JMP, 2022) indicate that only 33 percent of the population has access to safe water, whereas 20 percent of people are using surface or unimproved water sources. Furthermore, over 12 percent still practice open defecation, only 28 percent have access to safe sanitation, and only 20 percent of people access basic hygiene facilities with 30 percent having no facility at all.

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<sup>55</sup> FAO (2023). *Food price monitoring and analysis tool (FPMA)*. Accessed 25 September 2023. [FPMA Tool V4 \(fao.org\)](https://www.fao.org/fpma/)

<sup>56</sup> Ibid.

<sup>57</sup> Ibid.

The recent drought created catastrophic conditions for access to the most basic WASH services for both people and livestock, exacerbating environmental degradation, provoking internal and cross-border displacement, and threatening the lives of over 20 million children in the Horn of Africa.<sup>58</sup> Population displacements, due to both climatic shocks and conflict, further challenged WASH access. This poor access to WASH services contributed to disease outbreaks with East Africa continuing to report cholera outbreaks with four countries currently affected (Kenya, Somalia, Ethiopia, and the Sudan).

Looking forward, extreme weather events, including floods and drought, are likely to increase the vulnerability of populations in the region by further reducing access and causing damage to existing water sources. Moreover, as women, girls and children are often responsible for fetching water, climate crises that require these groups to travel further to seek safe water and sanitation amplify protection and GBV risks. The El Niño event may also increase climate-related displacement, requiring emergency WASH responses to meet basic needs. In addition, there is an increased risk of further WASH-related disease outbreaks.

## Health

### *Current situation:*

The prolonged drought and flooding, along with conflict, insecurity, and resulting population displacements, have severely impacted people's health and deepened a health crisis in the Greater Horn of Africa. Last year, the number of reported disease outbreaks and climate-related health emergencies reached its highest level in this century in the seven countries combined (Djibouti, Ethiopia, Kenya, Somalia, South Sudan, the Sudan, and Uganda).

Elevated levels of acute food insecurity led to millions of children under the age of five estimated to face acute malnutrition, increasing their risk of not only starvation, but also of severe outcomes during disease outbreaks due to a weakened immunity. Malnourished children are more susceptible to common childhood diseases. In addition, the ongoing conflict and flooding in some parts have resulted in large population displacements in the region. All these factors combined have negatively affected the already weak health systems in large parts of the region, particularly maternal and child health services including immunization.

The region is dealing with multiple, frequent, and some long-lasting disease outbreaks like cholera, measles, anthrax, meningitis, malaria, dengue fever, hepatitis E and circulating vaccine derived polio virus type 2 (cVDPV2). Ethiopia, Somalia, Kenya, and the Sudan are experiencing cholera outbreaks, resulting in increased illness and associated deaths. All seven countries have been grappling with measles outbreaks, with particularly high numbers of cases reported in Ethiopia, the Sudan, and South Sudan. A number of suspected meningitis cases are reported in the region, particularly in Ethiopia. Malaria is endemic in most countries and continues to be the leading cause of outpatient consultations with the number of malaria cases up significantly since 2022 in Ethiopia, Uganda, and the Sudan. Moreover, countries like the Sudan, Ethiopia, Somalia, and Djibouti reported a high number of dengue fever cases in 2022 and 2023. Recent flooding has further increased the risk for these water and vector-borne diseases.

Recent shocks affecting the region continue to disrupt essential and lifesaving health services while both hampering improvement and eroding health systems gains, especially in routine immunization, maternal,

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<sup>58</sup> UNICEF (2023). *More than twenty million children suffering in the Horn of Africa as drought intensifies*. [More than twenty million children suffering in the Horn of Africa as drought intensifies – UNICEF](#)

reproductive, and childcare. Consequently, the Greater Horn of Africa (Eritrea, Ethiopia, Somalia, Kenya, South Sudan, Uganda) is host to more than 49 percent (approximately 1.4 million) unvaccinated (zero dose) children for routine vaccination (first dose of diphtheria, pertussis, and tetanus), further predisposing the subregion to vaccine preventable disease outbreaks.<sup>59</sup> Around 52 percent (approximately 2.4 million) of all infants who did not receive their first dose of measles-containing vaccine in the East and Southern Africa region in 2022 are from the Greater Horn of Africa. This is increasing their risk of death and disability due to the combination of malnutrition and measles with 32,114 suspected cases reported in Greater Horn of Africa countries in 2022 alone. They also face the complications of poor or delayed management of common health conditions.

In response to the ongoing crises, all seven countries in the region have scaled up their health response. The focus has been on ensuring that vulnerable populations have access to essential health services, protecting populations from diseases through immunization campaigns, detecting and responding to outbreaks and providing treatment for severe acute malnutrition. Recovery from these health impacts will, however, take years and with an imminent El Niño, this area requires particular attention to avert and even reverse the negative health impacts.

*El Niño-Related Health Threats:*

El Niño conditions increase the probability of a range of extreme weather events, all of which are detrimental to human health (Figure 13). The magnitude of health impacts associated with El Niño will vary depending on how intensely El Niño influences the local climate of the region, as well as the existing local health vulnerabilities, levels of preparedness and response capacities.

**Figure 13.** Impacts of climate hazards on the health sector



Source: World Health Organization (2016). *El Niño and Health – Global Overview – January 2016*. <https://reliefweb.int/report/world/el-ni-o-and-health-global-overview-january-2016#:~:text=According%20to%20a%20new%20report,and%20disruption%20of%20health%20services.>

<sup>59</sup> WHO and UNICEF Estimates of National Immunization Coverage, July 2023

Both droughts and flooding may trigger food insecurity and increased malnutrition, thus enhancing vulnerability to infectious diseases. Droughts, flooding, and intense rainfall may cause both water- and vector-borne disease outbreaks, and may damage or close health facilities, thus reducing regular health service delivery and restricting access to healthcare during the emergency as well as beyond the event. Population displacements and related overcrowding in locations hosting IDPs further increases the risk of outbreaks of infectious diseases.

El Niño-related warmer temperatures may result in vector-borne disease epidemics in highland areas, which are too cold for vector survival and disease transmission at other times. Damaged or flooded sanitation infrastructure may also lead to water-borne diseases.

The disease burden is also likely to be amplified by health service disruptions with refugees and internally displaced persons among the most affected. Overall, populations already affected by a humanitarian situation face heightened risk of suffering health consequences of either wet or dry conditions.

#### Vector-borne diseases

Mosquitoes are responsible for the transmission of diseases such as malaria, dengue fever and Rift Valley fever. The relationship between El Niño events, malaria, and other vector borne diseases has been well documented.

The effect of ENSO on malaria is mainly driven by changes in rainfall and temperature. Malaria cases are expected to be more pronounced in epidemic-prone areas of the region due to El Niño impacts. Previous El Niño events in the Horn of Africa have resulted in sharp increases in malaria cases, potentially increasing malaria cases in non-immune populations, as was the case in northeastern Kenya after the 1997 El Niño.

Rift Valley fever (RVF), a viral disease of animals and humans, is also transmitted through mosquitoes. Since 1950, each of the seven documented moderate or large RVF outbreaks in the Horn of Africa have been associated with El Niño-related above-normal rainfall. All Greater Horn of Africa countries, with the exception of Ethiopia, are reported to be endemic for RVF and outbreaks are likely during the El Niño.

Dengue is highly transmissible in tropical and sub-tropical climate areas, particularly in urban and peri-urban areas. Warmer temperatures associated with El Niño can impact the way people use water, leading to practices that promote the breeding of mosquitoes. These practices may include collecting and storing more water, which creates conditions that facilitate the spread of the dengue virus. With the Greater Horn of Africa countries having reported dengue cases before, the risk of outbreaks during the El Niño is high, particularly in urban areas and refugee/IDP camps.

Chikungunya transmission is well established to be linked to El Niño events. Changes in transmission are expected to be similarly affected as with dengue, after consideration of current patterns of endemicity and the high densities of Aedes mosquitoes in the countries affected by El Niño.

#### Water-borne diseases

Outbreaks of cholera and other diarrheal diseases can occur after flooding if the floodwaters become contaminated with human or animal waste, and poor water and sanitation exists. Drought reduces the water available for washing and sanitation, and also increases the risk of disease. Higher temperatures are also associated with an increase in gastro-intestinal infections. Major cholera outbreaks in parts of East Africa were associated with strong El Niño years, such as 1997 and 2015, and with many countries having experienced cholera outbreaks during periods of food insecurity, preparedness activities should



be heightened. El Niño might bring the risk that the ongoing cholera epidemics in Ethiopia, Kenya and Somalia will spread, and that other countries may experience cholera outbreaks as well.

#### Vaccine-preventable diseases

Displacement, crowding and lack of access to vaccination are likely to increase the risk of several vaccine-preventable diseases, such as measles and meningitis. Populations with high rates of malnutrition are more susceptible to measles. All seven counties in the region are currently battling measles outbreaks.

#### Maternal and child health

Decreased access to WASH and health services is likely to worsen maternal and child health. Several of the other health threats above, such as malaria and diarrhea, also have a disproportionately severe effect on pregnant women and small children. Additionally, researchers have shown that El Niños can result in suboptimal complementary feeding practices, by reducing food access and reducing the time mothers allocate to children. High levels of heat can have adverse effects on rates of preterm birth, stillbirths, and low birth weight.

#### Mental health

In the context of El Niño, acute stress and exacerbations of mental health conditions are likely to result from reduced livelihood activities, food insecurity, displacement, and limited access to health services. When individuals are subjected to challenging circumstances, such as natural disasters and armed conflicts, it can lead to severe psychological consequences. The uncertainty, fear, and loss experienced during such events can trigger feelings of anxiety, depression, and post-traumatic stress disorder (PTSD). Displaced populations are especially vulnerable. Forced to leave their homes and communities, they often face isolation, a lack of access to basic necessities, and limited social support.

#### Effects of heat stress

Heat waves, characterized by prolonged periods of abnormally high temperatures, put immense strain on the human body. Individuals exposed to extreme heat are at risk of heat stress, heat exhaustion, and heatstroke, which can be life-threatening if not properly managed. Vulnerable populations, including the elderly, children, and those with pre-existing health conditions, are especially susceptible to heat-related health impacts. Already, the Sudan is experiencing an increasing number of deaths from heat-related impacts.

#### Health service disruptions

Disruptions to health services as a result of an El Niño can occur due to a lack of water supply (during droughts) or damage to health infrastructure or infrastructure facilitating access to healthcare (due to floods) as well as reduced access as a result of displacement.

Disruptions in national transport infrastructure can equally cause ruptures in supply chain continuity that may affect the El Niño response. Note that due to recent increases in the number of simultaneous events, there is a current lack of global emergency kit capacity in a market already under stress.

#### Health response

The magnitude of health implications associated with El Niño is more in resource-limited countries which have reduced preparedness and response capacities. There is a need for countries in the region to understand and better prepare to respond to the anticipated impacts. More predictable funding will facilitate the re-design and alignment of health programmes to the unique population needs, including

health systems resilience, protection of the health workforce and further community ownership and empowerment.

## Food security

Acute food insecurity situation across the IGAD region continues to remain a major source of concern, with the latest September figures indicating that around 55.3 million people are highly food insecure and require urgent assistance (Figure 14). This figure includes about 35.2 million people facing Crisis or worse (IPC Phase 3 or above) across countries with recent IPC analyses. Of this population, 10.7 million people are in Emergency (IPC Phase 4) across the region and 43,000 people face Catastrophe (IPC Phase 5) in South Sudan. The regional 55.3 million figure also includes 20.1 million people in Ethiopia who need urgent food assistance, according to the 2023 HRP. The region also has a large caseload of people facing Stressed (IPC Phase 2) acute food insecurity, at around 33.1 million people. These populations rely on negative coping strategies in order to minimally meet food consumption needs and require livelihood support.

Countries with the largest populations facing high levels of food insecurity include the Sudan (20.3 million), Ethiopia (20.1 million) and South Sudan (7.8 million). South Sudan, meanwhile, has the highest prevalence of high levels of food insecurity, with 63 percent of the population in IPC Phase 3 or above, followed by the Sudan (42 percent).

**Figure 14.** Food insecure populations in the IGAD region

IPC Analyses	Stressed (IPC Phase 2)	Crisis (IPC Phase 3)	Emergency (IPC Phase 4)	Catastrophe (IPC Phase 5)	IPC Phase 3+
Djibouti	401,722	185,312	100,102	0	285,414
Kenya	6,406,950	2,287,350	499,200	0	2,786,550
Somalia	5,602,710	2,813,980	919,030	0	3,733,010
South Sudan	3,080,000	4,822,000	2,899,000	43,000	7,764,000
Sudan	17,092,334	14,037,556	6,255,796	0	20,293,352
Uganda	554,570	293,150	48,440	0	341,590
IGAD	33,138,286	24,439,348	10,721,568	43,000	35,203,916

Other food security estimates	
Ethiopia	20.1 million people in need of food assistance (Source: HRP 2023)

<b>Total highly food insecure population in need of assistance</b>	<b>IGAD caseload: 55.3 million</b>
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Source: IPC-GSU, Ethiopia 2023 HRP

Key drivers of food insecurity in the region include climatic shocks (e.g., the three-year drought, flooding), conflict and insecurity plaguing parts of the region, and macroeconomic challenges including currency depreciation and high food prices.

Looking forward, El Niño and a positive Indian Ocean Dipole pose both threats and opportunities for food security. In drought-affected areas of the Horn of Africa, such as the arid and semi-arid lands (ASAL) of Kenya, eastern Ethiopia, and Somalia, increased rainfall will likely help to support drought recovery, increasing agricultural production and driving an overall decline in food insecurity. However, in flood prone areas, there is a high risk of flooding, which could destroy assets, crops, and livestock, displace populations, limit humanitarian access, and lead to localized increases in food insecurity. Similarly, across western parts of the region, such as western Kenya, southwestern and northern Uganda, Rwanda, and

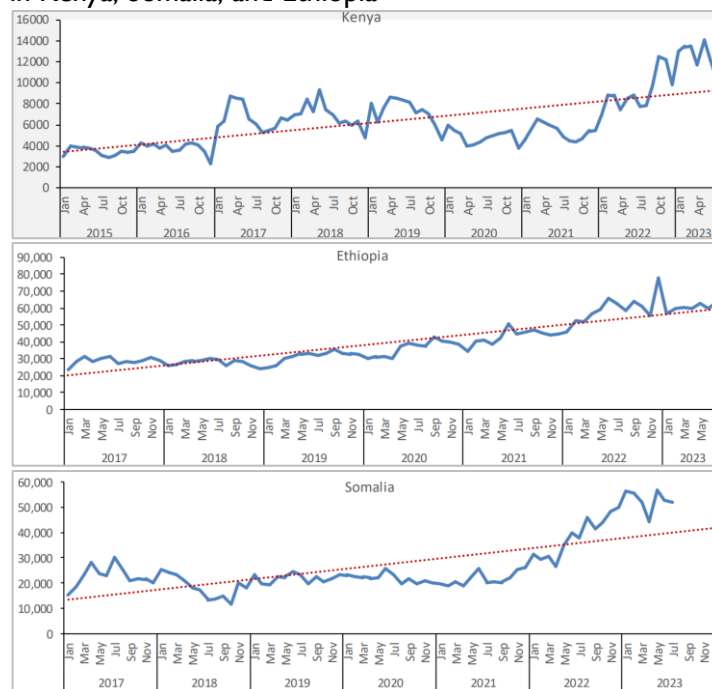
central Ethiopia, dry spells and drought could reduce agricultural production and exacerbate already very high levels of food insecurity.

### Nutrition

Multiple drivers, including disease epidemics, food insecurity, conflict, and climatic shocks, continue to exacerbate the nutrition situation, with high levels of malnutrition recorded. In 2023, over 2.5 million children are expected to suffer from severe acute malnutrition in East Africa, the majority of whom are in Ethiopia, Kenya, Somalia, and South Sudan. Admission trends in most countries remained high in 2023 compared with the previous year (Figure 15 – 17), and with countries approaching the peak season for high malnutrition, the burden is poised to increase further.

Drought and conflict continue to impact displacement. Providing nutrition assistance to displaced populations remains a crucial priority for humanitarian actors. Additionally, cholera remains a key concern and is a significant driver to watch, given the risks that it poses in terms of causing surges in malnutrition.

**Figures 15 – 17. Severe acute malnutrition admission trends in Kenya, Somalia, and Ethiopia**



Source: UNICEF

El Niño-related below-average rains or flooding have the potential of worsening conditions for those who already have low access, and thus no resilience, to worsening WASH conditions. During past El Niño events, water scarcity for human use can be acute at the height of a drought, with a potential increase in diseases resulting in rising malnutrition and threatening the region’s ability to achieve optimal nutritional status through various pathways. Flooding can also result in damaged water and sanitation infrastructure and can contaminate water sources, also driving an increase in disease outbreaks and malnutrition rates.

The El Niño is occurring at a time when the region is already grappling with limited donor funding. While countries have secured their critical supplies for managing malnutrition through to the end of the year, funding for partnership and buffer stocks, key for scaling up the response, remains a challenge and an area for continued advocacy with the donor community. Some of the best practices for the past response include: timely response due to preparedness/efficiency; coordination systems that are agile and involve multiple stakeholders; integrated service delivery with multi-disciplinary teams (outreach, facilities, community level); capacity strengthening through the use of an integrated assessment framework and multi-disciplinary targeting; early warning, surveillance, and monitoring systems; ring fencing of nutrition supplies; dynamic partnerships that are able to respond to multiple shocks and leveraging comparative advantages; and quality improvement through robust monitoring as part of the response.

## Humanitarian preparedness

Many of the countries concerned by El Niño have already experienced natural hazard-driven disasters such as floods, landslides, etc., and have policies, institutions, contingency plans and other initiatives for risk mitigation, preparedness, and emergency response in place. However, the coming months will be crucial for the implementation/revision of existing tools while ensuring that preparedness, anticipation, and response efforts are informed by all relevant climate forecast updates, including rainfall and temperature forecasts and not just a singular focus on El Niño/IOD. However, it should be noted that in all countries, resources for preparedness are very limited or not available.

In Kenya, ongoing preparedness measures include: 1) the reactivation of regional hubs and an updated list of focal points for floods/El Niño preparedness, including an inter-agency planning process through the inter-sector working group (ISWG); and 2) mapping of flood-prone counties where Wajir, Mandera, Tana River, and Isiolo were weighted as having the high severity, supported by historical data from 2018 to 2023. OCHA and key actors will work in coordination with the National Disaster Operation Centre (NDOC) and Kenya Red Cross Society (KRCS) on preparedness and response efforts.

The Government of Rwanda has contingency plans in place – not specific for El Niño, but for extreme weather cases – and a 2022 National Disaster Preparedness Plan for the food security and nutrition sector. With technical and financial support from WFP, the Government is developing a multisectoral Emergency Needs Assessment Toolkit.

In Eritrea, the Ministry of Agriculture and Ministry of Information are taking the lead to raise awareness on El Niño to relevant stakeholders. The Ministry of Agriculture requested farmers to plant flood resilient crops to avert food insecurity through the recent planting season. However, there is no government entity dealing with emergency preparedness and therefore, there is limited preparedness capacity. OCHA Eritrea is engaging the Government and is offering to support government entities tasked with emergency preparedness. Within the inter-sector working group, OCHA has asked the UN agencies – there are no NGOs or Red cross movement in the country – to enhance preparedness through the various existing programmes that they are implementing in the country.

In Ethiopia, OCHA is planning for a risks analysis workshop to be held at the end of September, with the support of DRR Geneva and one of the risks to be analyzed will be El Niño. Based on the workshop recommendations, they will initiate preparedness activities. They are also discussing the inclusion of an El Niño component in the anticipatory actions, though the final decision will depend on the workshop's outcomes and recommendations.

In South Sudan, for emergency response preparedness, OCHA and humanitarian partners are focusing on different scenarios including the impacts of the rainy season. Specifically, workstreams at the inter-cluster level – both at the national and field level – include minimum preparedness actions of pipeline monitoring, updating minimum response packages and the tracking of flood-affected areas. Teams are monitoring the impact of reduced rainfall which is most prevalent in parts of Eastern Equatoria.

In Burundi, the Red Cross has developed an early action protocol for floods which has been submitted for funding.

In Uganda, discussions are ongoing on disaster preparedness and management under the leadership of the Prime Minister Office.

The Tanzania Meteorological Authority (TMA) forecasts that the Vuli rainfall season from October to December 2023 is likely to be influenced by El Niño, driving above-normal rains over most parts of the regions concerned. The above-normal rainfall might cause disruptions in sensitive sectors such as agriculture, livestock, fisheries, tourism, wildlife, transport, energy, water, minerals, health, and other socioeconomic activities. The Prime Minister's Office (Policy, Parliament, and Coordination) has coordinated the preparation of the National El Niño Contingency Plan and Anticipatory Actions (CP&AA) for Tanzania Mainland (September 2023 – June 2024) to address the potential impact in various sectors. The CP&AA has been developed using a multisectoral approach, involving experts and stakeholders from both government and non-government institutions. The development process was facilitated by the Disaster Management Act No. 6 of 2022, which provides a platform for the coordination of different sectors through disaster management committees from the national to the village/mtaa level. The CP&AA emphasizes the readiness of the government, non-government actors, communities, and other stakeholders in preventing and mitigating the impacts of hazards, as well as preparedness for response and recovery, including building back better. It aims to establish and strengthen coordination mechanisms and partnerships while being proactive in containing all the impacts of El Niño. It presents areas for consideration, with a focus on the most vulnerable communities, institutional roles and responsibilities, and key processes required to achieve a coordinated, coherent, and consistent management of El Niño-related issues across sectors.

In the Sudan, humanitarian actors are identifying flood prone areas and are ensuring a stock mapping in the Eastern states. The Darfur and Khartoum strategies will also include a flood preparedness section.

In Somalia, under the leadership of the HCT, the Inter-Cluster Coordination Group has finalized an Emergency Preparedness and Response Plan covering July to December. It considers the humanitarian consequences of floods among other risks (e.g., cholera, conflict). The plan identifies key districts and estimates of the number of people that could be affected by the floods. Additionally, a document has been finalized which prioritizes needs from August to December.

## **RESPONSE RECOMMENDATIONS:**

Given the high possibility of significant and widespread humanitarian impacts due to the combined effects of El Niño, a positive Indian Ocean Dipole (IOD), and other drivers such as conflict, macroeconomic challenges, and the residual impacts of the recent severe drought, FSNWG encourages governments, donors, and the humanitarian community to implement preparedness and anticipatory actions to help to mitigate expected impacts, as well as plan for the possibility of an increase in multisectoral humanitarian needs in the coming months. More specifically, the FSNWG recommends the following actions:

### **Food security**

Reducing already high levels of food insecurity and preventing further deteriorations through the following actions:

- Prepare for increased needs relating to cash, food, and livelihood support, with a particular focus on those already experiencing multidimensional poverty such as displaced populations, female-headed households and households with persons with disabilities, both during the immediate aftermath of flooding and relating displacements (in flood-affected areas) as well as later on in 2024, particularly in drought-affected areas where the lean season will peak during the first half of next year.

- For areas that were affected by the three-year drought but are outside floodplains, support households through farm inputs, cash and vouchers, tractor hours, water harvesting infrastructures, livestock restocking, and animal health programs so they can fully take advantage of the favorable upcoming rains to increase production and support drought recovery.
- Reduce the impacts of flooding in floodplain areas through the maintenance of water infrastructures to reduce flooding, protect cereals through grain stores, and promote animal health.
- In floodplain areas, help flood-affected households produce some cereals despite the flooding by providing support to enable flood recession agriculture.

## **Nutrition**

Support governments to scale up nutrition response through treatment and preventive interventions, including:

- Accelerate screenings for early detection and timely treatments through different approaches, including mass MUAC screenings, find and treat campaigns, and outreaches.
- To ensure that countries are not faced with stockouts, continue monitoring and prepositioning supplies to address stockouts resulting from anticipated increased coverage.
- Complement nutrition-specific interventions with cash transfers, which have been shown, for example in Ethiopia, Mozambique, and Kenya, to have served as an essential cushion to vulnerable households, including those with persons with disabilities, as a form of social protection to prevent deterioration of their nutrition status.
- Scale up of preventive interventions, including Vitamin A supplementation, micronutrient supplementation and IYCF counseling.
- To ensure that the response is evidence-based, undertake SMART surveys in Ethiopia, Uganda, Kenya, and South Sudan. Nutrition surveys can also feed into upcoming IPC AMN and AFI analyses across the region.
- In June, the WHO released revised recommendations for the prevention and management of wasting and oedema with new insights included in the revision, including the management of uncomplicated Severe Acute Malnutrition by CHWs, use of a single product in the management of both SAM and MAM, and management of high-risk children with moderate acute malnutrition. These changes will continue to improve the quality of care, increasing access and coverage. To this end, UNICEF, WHO and nutrition partners are engaging to explore avenues to disseminate these recommendations widely to support improved programming.

## **WASH**

Adopt a risk-based approach to WASH preparedness and response planning, including the mapping of the highest risk locations and populations for priority targeting. WASH contingency plans will inform context adapted approaches, and priority activities include:

- Support and strengthen the national and county level sector coordination meetings, revision of WASH response plans, enhance emergency WASH preparedness planning, development of climate resilient, gender responsive, disability inclusive and accessible WASH programmes and implementation of action plans and capacity building on sector coordination.
- Conduct periodic training of county and partner agency staff on emergency preparedness and response (including water point repair and rehabilitation), information management, and the Kenya Inter-Agency Rapid Assessment (KIRA).

- Support rapid needs assessments/surveys in flood prone/affected counties and assessments of affected WASH services including water supply systems and sanitation facilities in communities, schools, and health facilities. Additionally, support water quality assessments through monitoring at water points and within communities, and conduct market analyses for emergency interventions such as water trucking.
- Rehabilitate flood-affected WASH services with a 'Build, Back, Better' approach involving the community for a more gender responsive, disability inclusive, and climate resilient service provision.
- Provide temporary water supplies for displaced populations including the provision of temporary storage tanks and liaising with county governments and other partners to support the provision of adequate and safe water supplies through pipeline extensions to IDP camps and schools, and water trucking whenever necessary.
- Construct temporary inclusive and accessible latrines and bathrooms for displaced populations, separated by gender, and support the establishment of community structures for operations and maintenance to ensure cleanliness. Provide hand washing facilities near toilets with soap and establish mechanisms to ensure water and soap availability.
- Support hygiene promotion activities including cholera messaging to provide lifesaving messages for displaced populations, including in alternative accessible formats to ensure reach to persons with disabilities.
- Support household water treatment and safe storage through the distribution of WASH supplies and household water treatment systems.
- Procure and preposition WASH emergency supplies including jerricans, buckets, soap, water storage tanks, water treatment chemicals (Aqua tabs, PUR, calcium hypochlorite, aluminum sulfate), tarpaulins, and hygiene kits.
- Rehabilitate and connect schools to existing water sources and provide training on operations and maintenance. Rehabilitate school latrines and install hand washing facilities. Conduct hygiene education for school children and teachers, and form school WASH clubs.
- Support menstrual hygiene management in schools and for girls and women of reproductive age.
- Develop and distribute information, education, and counseling materials on hygiene promotion, cholera, household water treatment and safe storage that are gender responsive and disability inclusive and accessible, in partnership with social behavior change (SBC).

## Health

In order to prevent unnecessary deaths and illnesses, there is a need to invest in strengthening preparedness and response efforts relating to the health sector. Specific interventions include:

- Strengthen disease surveillance, early warning and outbreak response measures with the coordination and support of health partners.
- Develop strategies to ensure that affected communities, including community members who are disproportionately at risk of losing access to services such as persons with disabilities, will have access to health and other essential services.
- In accordance with the preparedness and response plan, ensure that adequate operational capabilities are in place, including human resources and supplies.
- Replenish and preposition emergency health/medical supplies, as well as supplies to prevent and treat identified epidemic prone diseases (e.g., medicines, mosquito nets).
- Strengthen immunization services at community and health facility level, especially for epidemic prone diseases including measles.

- Risk communication and community engagement, health and hygiene promotion that is gender responsive and disability inclusive and accessible, focused on the behaviors to adapt during flooding, drought, etc.
- Strengthen the coordination mechanisms for health response, from national to lower level, as well as with other cluster/sectoral coordination mechanisms in place.
- Improve the quality of care for malnourished children admitted with medical complications.
- Increase assistance to and advocacy with Ministries of Health and partners to enhance preparedness measures, including development of national health contingency plans and improving the disease surveillance for El Niño-related health risks.
- Work with national meteorological and hydrological services to get detailed updates on rainfall observations and more localized predictions to help with preparedness and response.
- Anticipated disease threats (cholera, malaria, dengue fever etc.), including mosquito nets, ensuring continued access to health and other essential services, including education.

### **GBV/Protection**

In order to reduce GBV and protection risks, the following actions are needed:

- Ensure the availability of GBV services, including mental health and psychosocial support (MHPSS) and sexual and reproductive health services.
- Support governments/national/local capacities in delivering equitable and inclusive responses including where GBV in Emergencies (GBViE) specialized services are not available.
- Ensure the capacity building of “all sectors” frontline workers and response actors to ensure that they have 1) knowledge about available GBV response services, 2) knowledge on how to support survivors of GBV in areas where GBV specialized services are not available and 3) can refer cases of sexual exploitation and abuse to designated prevention of sexual exploitation and abuse (PSEA) focal points and entities.
- Establish child-safe places and safe spaces for women and girls to have access to information, including on existing GBV reporting mechanisms in their communities. Disseminate information to other beneficiaries including on how to report allegations of violence, abuse, and exploitation. Support the provision of tailored, targeted interventions for adolescent girls whose mobility may be restricted, whose needs are specific and whose risks (given the combination of their sex, age, and other factors such as disability) make them uniquely vulnerable to GBV, yet they are often overlooked by standard operations and less likely to recover. Additionally, support the functioning of child protection structures and build capacity of human resources/social workers and other service providers available to support affected communities.
- Advocate and support the integration of GBV risk mitigation in other clusters, programmes, etc., to ensure that GBV risks are addressed, and that women and girls can access services in a safe and timely manner. Gender-responsive programming prioritizes data disaggregation by sex, disability and age and gender analysis to inform the design of equitable, responsive, and inclusive programming.
- Advocate for an increased engagement of women-led organizations, including women-led organizations for girls and women with disabilities, and for their access to decision making platforms and financial resources so they can play a meaningful role in the coordination and leadership of the response while supporting GBV survivors. Engage local organizations advancing the rights of women and girls and other marginalized sub-groups to ensure that their voices are elevated in analysis, design, implementation and monitoring of El Niño’s preparedness and response action.