



# Public Health Situation Analysis

## Greater Horn Of Africa

### Health and Food Insecurity

**Population:** Inhabitants of seven food insecurity affected countries (Djibouti, Ethiopia, Kenya, Somalia, South Sudan, Sudan, Uganda)

**Emergency:** Grade 3

**Reporting period:** June – December 2022

**Start date of crisis:** Late 2020; Escalation: Quarter 1, 2022

**Typology of crisis:** Drought, food security, conflict, health and displacement

*This report was prepared by the Greater Horn of Africa IMST and is subject to regular updates based on changes in the situation and availability of public data.*



**World Health Organization**

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## Preface

The Public Health Situation Analysis (PHSA) for the Greater Horn of Africa (GHOA) region aims to describe the humanitarian needs assessments and to identify the current health status and potential health threats that the population may face. This document is intended for all health sector partners, including local and national authorities, non-governmental organizations (NGOs), donor agencies and United Nations agencies, and will provide a common and comprehensive understanding of the crisis in order to inform evidence-based collective humanitarian health response planning.

This update of the PHSA replaces and builds upon the previous version published on 9 June 2022 for the drought and food insecurity crisis. This version is based on the information available since the previous one was published including the new IPC projections, climate crisis, and country-specific context, situation, additional threats/risks and responses undertaken so far. The information provided in the document is obtained by reviewing the latest available secondary data from all seven countries of the GHOA region.

## Executive Summary

Countries in the Greater Horn of Africa (GHoA) continue to experience extreme weather events, including the worst drought in 40 years after four consecutive failed rainy seasons. Since October 2020, millions of people across the seven affected countries – Djibouti, Ethiopia, Kenya, Somalia, Sudan, South Sudan, and Uganda – are suffering from the results of extreme weather conditions, subsequent disease outbreaks as well as pre-existing conflicts, and malnutrition. Of the approximately 292 million inhabitants in the GHoA, an estimated 46.3 million people are living in acutely food insecure situations of level three or higher of the Integrated Food Security Phase Classification (IPC)<sup>1</sup>. This has been a contributing factor to displacement, with the region currently hosting 4.5 million refugees and 13.5 million internally displaced persons (IDPs)<sup>2</sup>.

The GHoA region has experienced various climate-induced crises for some decades now, however, the impact of the current climate events including drought in the arid and semi-arid lands (ASALs) and floodings in other parts of the region have been exceptionally severe. Over the last year, the region has recorded over 39 outbreaks and public health events which is the highest annually reported public health events since 2000<sup>3</sup>. Over the past six months, the risk of malnutrition has increased precipitously as food insecurity continues to deteriorate. In drought-affected areas, pastureland and water sources are facing depletion across the region<sup>4</sup>. Subsistence farmers and rural communities who rely on natural resources have witnessed an unprecedented increase in the death of their livestock and subsequently the loss of their livelihoods. Vast areas used for the production of crops have been destroyed and, in Ethiopia alone, 4.5 million livestock have died since December 2021 due to drought<sup>5</sup>.

Millions of families are being forced to leave their homes in search of food, water, and pasture, heightening the pressure on already-limited natural resources. Kenya recorded less than 55% of the 30-year rainfall average in 2022, according to the Famine Early Warning System Network (FEWSNET)<sup>6</sup>. In pastoral areas, poor vegetation and long trekking distances for livestock are causing wasting body conditions and well below average milk production, while in marginal agricultural areas late planting and below-average rainfall are raising concerns that many crops may not reach maturity. Dwindling resources have increased tensions and conflict as pastoralist communities travel further in search of food and water, leading to inter-communal clashes.

In Somalia, protracted drought, a complex social structure encompassing various ethnic minorities, political divisions and the resulting insecurity and conflict continue to drive humanitarian needs and public health concerns. Nearly half (8.3 million out of 16.9 million) of the population is in need of humanitarian assistance according to the Humanitarian Needs Overview 2023<sup>7</sup>.



The rising food insecurity is increasing the health risks and needs of the affected populations, leading to a greater requirement for preventive and curative health care services. Undernutrition and micronutrient deficiencies have become widely prevalent, particularly among at-risk populations such as pregnant and breastfeeding women, new-borns and children, the elderly, and people living with disabilities or chronic diseases (including TB and HIV)<sup>8</sup>. The crisis-driven migrations have resulted in mass displacements, leading to millions of refugees and IDPs seeking shelter in camp settings<sup>2</sup>. However, the limited infrastructure in IDP camps together with hygiene and sanitation facilities, has been overstretched due to overcrowding and pressure from the influx of new arrivals, thereby increasing the risk of infectious disease outbreaks<sup>9</sup>.

Outbreaks of epidemic diseases, such as cholera and measles, are a major concern in drought- and flood-affected areas, due to low immunization rates and insufficient health service coverage<sup>10</sup>. The severe water shortage in drought affected areas mean restricted access to safe drinking water and sanitation, leading to a deterioration in health conditions and an increase in the risk of disease outbreaks in the affected communities<sup>11</sup>. The effect of infection is more severe in malnourished persons due to weakened immune systems<sup>12</sup>. The loss of livelihoods and food insecurity are also increasing the general risk of morbidity and mortality through risky activities such as underpaid labour, migration and prostitution.

The current public health outlook indicates that the situation is getting worse compared to the first six months of 2022. What is needed is a coordinated effort from all sectors in order to mitigate disease risk, to in turn reduce morbidity and mortality in the affected countries.

## Country Summaries

The seven countries within the Greater Horn of Africa have been significantly affected by ongoing conflicts, extreme weather events such as drought and flooding, food price inflation and insecurity as well as loss of livelihoods and increased population displacement. These contexts may cause food shortages at the household level, and disruptions of the health system, compounded by very limited water, sanitation and hygiene services. Subsequently, the number of malnourished people has increased significantly, and multiple disease outbreaks like cholera, measles, malaria, yellow fever and others, are being reported in host communities as well as in IDP and refugee settlements<sup>8 13</sup>. In this PHSA about the food insecurity crisis, the IPC data are used as a reference. Two types of projections are used, food insecurity and the malnutrition estimates. These encompass an analytical approach to project the severity and magnitude of acute and chronic food insecurity, and acute malnutrition situations in a country following internationally recognised scientific standards. These projections are periodically and independently updated per country.

### ● Djibouti

The IPC food insecurity analysis from March through June 2022 indicated that about 132,000 people, representing 11% of the population, were facing high acute food insecurity (Phase 3 and 4)<sup>14</sup>. Estimates suggested that 5,000 people (<1% of the population) are experiencing emergency food insecurity (IPC Phase 4), with about 127,000 people (11% of the population) being in IPC Phase 3. Among the 15 zones included in the analysis, Ali Sabieh Rural, Ali Sabieh and Arta Rural, along with three refugee camps (Markazi d'Obock, Ali Addeh and Holl-Holl of Ali Sabieh) were identified as being acutely short of food. At least 20% to 40% of these populations were facing severe food insecurity (IPC Phases 3 and 4)<sup>14</sup>. The humanitarian crisis in Djibouti is expected to worsen in 2023. It is estimated that around 192,000 people are to be food insecure (IPC Phase 3 or worse).

The drought and subsequent poor economic conditions have been continuing into the second half of 2022. Despite the unfavourable conditions, severe and moderate acute malnutrition admissions (SAM and MAM) showed a decreasing trend by the last quarter of 2022<sup>15</sup>. Immunization coverage is still at a sub-optimal level, however, there has been an intensified effort to improve routine immunization coverage, especially among under-five children. Multiple disease outbreaks such as measles, malaria, dengue, and AWD continue to be reported by the National Public Health Institute of Djibouti. A total of 546 measles cases affecting mainly children under the age of five were reported as of November 2022<sup>16</sup>. In response to the measles outbreak, two vaccination campaigns were conducted in March and September 2022. Moreover, a total of 371 malaria cases have been reported as of November 2022 and the trend has shown a reduction by 24% in the first semester of 2022 compared with the same period in the 2021 data as a result of the support from partners and the ongoing integrated vector control measures in place<sup>16</sup>.

### ● Ethiopia

The ongoing drought in Ethiopia has had devastating effects on livelihoods and Food security. It is estimated that (as of 6 December 2022) more than 22.6 million people are food insecure, mainly in the southern, south-eastern and eastern parts of the country as a result of the conflict (much of which is concentrated in northern and western regions), coupled with high inflation and the disruption of income and food sources due to displacements<sup>17</sup>. An estimated 11.8 million people are food insecure due to significant livelihood losses in drought-affected areas. Moreover, projections estimate that nearly 29 million will need humanitarian assistance in 2023 as the situation continues to deteriorate<sup>17</sup>.

The impact of the ongoing drought is spreading to different woredas (districts), leading to a corresponding increase in the number of people in need of assistance. According to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), since late 2021, an estimated four million livestock have perished, and more than 30 million are emaciated and at risk of dying. This is an increase both in livestock at risk and deaths (3.5 million and 25 million reported respectively) by mid-May 2022 compared to the year before<sup>5</sup>. The current humanitarian situation is not expected to stabilize in 2023, given the seasonal forecast of additional consecutive poor rainfall seasons in parts of the country. Therefore, an estimated 29 million people will require humanitarian assistance in 2023<sup>20</sup>.

The livelihoods of pastoralists and agropastoralists in the eastern and southern parts of the country are facing disproportionate risk from the climate crisis are. Overall, the soaring price of food, fuel and cooking oil, coupled with

unfavourable economic conditions and high inflation contribute to higher levels of acute food insecurity in the country. According to the joint report of FEWSNET and the World Food Programme (WFP), projections from October 2022 through May 2023 estimate that widespread and severe acute food insecurity is expected across Ethiopia through at least mid-2023, with more people needing assistance compared to the same time in 2022<sup>18</sup>. The southern and south-eastern regions are of extreme concern, as a record-breaking drought is expected to continue in this area until at least mid-2023<sup>18</sup>.

In these areas, equivalents of IPC level 4 outcomes are expected across the projection period, signifying that the situation would worsen in the absence of current and anticipated humanitarian food assistance<sup>19</sup>. Although in Ethiopia since 2019 no recent IPC assessment result is available, national estimates equivalent to IPC were published<sup>20</sup>. The drought has devastated local livelihoods as most households in the worst-affected areas are pastoral and rely on livestock as their primary source of food and income. Given a persistent lack of water and sufficient food for livestock, regional governments estimate that 4.5 million livestock have died since October 2021<sup>19</sup>.

The drought operational prioritization results prepared by OCHA indicate that as of 30 November 2022, 30 woredas were rated at priority level one, indicating severe drought impact on all the indicators and/or very low levels of humanitarian response in 2022. Seventy woredas were in priority level 2, suggesting high drought impact on most of the indicators and low levels of humanitarian response in 2022<sup>21</sup>. Moreover, displacement is occurring across large areas pastoral communities of Ethiopia as many people are moving in search of assistance. In the Somali region, the regional government estimated that over one million people are displaced due to drought as of September 2022<sup>21</sup>.

The conflict in Northern Ethiopia has resulted in the trauma and displacement since November 2020<sup>22</sup>. The food security and malnutrition situation has worsened, with over 13 million people in need of assistance in Tigray, Amhara and Afar regions<sup>19</sup>. There have been increased numbers of malaria, measles and acute respiratory infections and other vaccine preventable diseases with high risk of outbreaks, including cholera<sup>23</sup>. As a result of conflict, over 2.8 million people have been displaced and are living in crowded settings with limited access to food, nutrition, health and water and sanitation infrastructure<sup>24</sup>.

Humanitarian access to the Tigray region has gradually improved since the signing of a Cessation of Hostilities Agreement (COHA) on 2 November 2022 in Pretoria, South Africa, between the federal government and the Tigray People Liberation Front (TPLF). Food and non-food aid supplies are being transported via four corridors through the Afar and Amhara regions into Tigray. Humanitarian supplies are being dispatched to Tigray with more than 127,000 metric tons (MT) of food supplies having arrived between mid-November 2022 and December 2023 by the Government of Ethiopia, the UN and INGO partners. More than 67,000 MT of food has been distributed to around 3.8 million people as of December 2022. By December 2022, about 400,000 people were assisted with food in Tigray. In total, 83% of the total planned caseload of 5.4 million people in the region were assisted with food as of December 2022<sup>25</sup>.

Airlifted nutrition and health supplies have also been delivered, while regular humanitarian passenger flights have been flying in the much-needed human capacity to scale up the response. The first humanitarian convoy movement from Mekelle to Shire took place on 9 December and has continued since. Meanwhile, work to restore electric lines and telecommunications has started across several locations, including in the towns of Axum and Shire<sup>22</sup>. While these are significantly positive developments, there is still a need to further scale-up to reach the large number of populations who were rendered extremely vulnerable after two years of conflict. Although the humanitarian situation continues to improve in Tigray with new accessible areas, in Central, Eastern and North-Western zones, some pocket areas remain hard-to-reach. The humanitarian response in the newly accessed and the hard-to-reach areas remains highly constrained. Meanwhile, an alternate humanitarian corridor has been identified with the opening of the road from Adwa to Mekelle via Intincho - Bizet – Adigrat<sup>25</sup>. In the conflict-affected areas of Afar and Amhara regions, more assistance and rehabilitation work are needed, especially in areas where displaced populations are returning following improved security<sup>5</sup>.

In the Afar region, increased numbers of malaria cases have been reported since the beginning of 2022 and as of 15 December, more than 66,000 cases were recorded, which is 30% higher than the corresponding period in 2021. In addition to malaria, increasing numbers of measles cases have been reported from five woredas: Adar, Dalifage, Gelalo, Hadele'ala and Mille. Measles, coupled with the high rate of malnutrition in the region, is posing increased life-threatening risks<sup>23</sup>. A mass measles vaccination campaign targeting over 16M children in all regions of Ethiopia is underway since December 2022<sup>23</sup>.



Weakened livestock increases the likelihood of animal disease outbreaks while the present outbreaks of human disease can in turn lead to outbreaks of communicable diseases that compromise the lives of the most vulnerable, particularly the hundreds of thousands of pastoralist communities. Currently, several disease outbreaks are ongoing in the country, including cholera, measles, chikungunya, dengue fever, anthrax and malaria. The cholera outbreak is mainly affecting the drought-affected Somali and Oromia regions. As of 19 December 2022, a total of 691 cases with 24 deaths and a case fatality rate (CFR) of 3.5%, were reported from eight woredas in the Oromia and Somali regions.

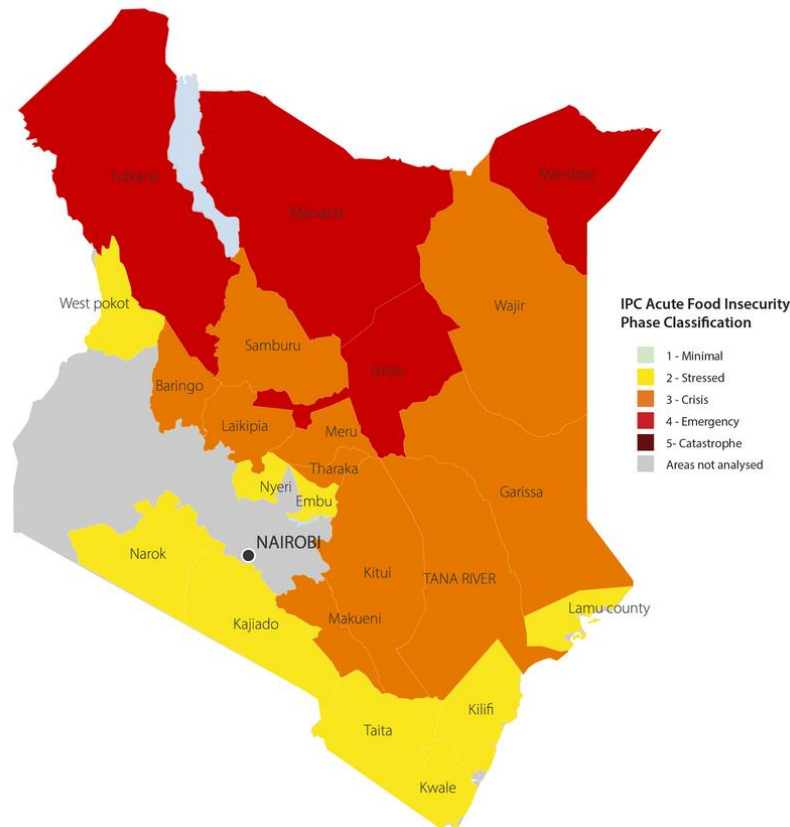
In relation to the nutrition situation, at the country level, the number of cases of severe acute malnutrition and moderate acute malnutrition receiving treatment continued to increase and as of September 2022, a total of 510,643 SAM children under five were admitted to therapeutic feeding programs (TFP) and nearly 1.2 million children with MAM admitted for targeted supplementary feeding program (TSFP). In December 2022 alone, over 8,300 children across Ethiopia were diagnosed with malnutrition, including more than 800 admitted into various stabilization centres for treatment with medical complications<sup>25</sup>. The increased death rate for SAM children with medical complications was reported from 25 woredas mainly from Afar, Amhara, Oromia and Somali regions<sup>5</sup>. The government is working closely with other partners to scale up the health and WASH activities in priority areas, with a particular focus on IDP sites. Approximately four million dollars of the Central Emergency Response Fund (CERF) has recently been approved to support the ongoing response to the outbreaks<sup>25</sup>. As of 30 December 2022, 707 cholera cases were reported in Oromia and Somali region including 28 associated deaths (Case Fatality Rate - 2.65 %). Close to one million people are at high-risk in the 10 affected woredas<sup>26</sup>.

In the Afar region, an increased number of malaria cases have been reported since the beginning of the year and as of 15 December 2022, more than 66,000 cases were reported, which is 30% higher compared to the same time last year<sup>27</sup>. In addition to malaria, an increasing number of measles cases are also being reported from five woredas, Adar, Dalifage, Gelalo, Hadele'ala and Mille. Measles is affecting 34 woredas of six regions and 13,294 cases with 76 deaths (CFR: 0.6%) have been reported<sup>27</sup>. Measles cases coupled with the high malnutrition rate in the region are posing increased life-threatening risks<sup>23</sup>.

## ● Kenya

Kenya is facing a protracted drought that has been ongoing since 2021 which is partly attributed to the failure of four consecutive rainy seasons. The drought situation remains critical in 22 of the 23 ASAL counties due to the late onset and poor performance of the October to December 2022 short rains, coupled with four previous consecutive failed rainfall seasons<sup>28</sup>. The country has been experiencing dry weather conditions in most parts in 2022, and - preparations should be made for the likelihood that the March to May 2023 rainy season is also below average, which, should it materialize, would culminate in a record sixth consecutive poor season<sup>29</sup>. The lack of rainfall has led to a spike in water and food prices, along with the loss of livestock and crops, and heightened stress on livelihoods<sup>30</sup>. Twenty of the 23 ASALs are particularly hard hit. Among these, seven counties are experiencing an alarming level of drought. Thirteen counties are facing drought above the normal level. Food insecurity is on the rise, especially in the ASALs, worst affected by the drought<sup>31</sup>.





**Figure 1: Projected food security outcomes October – December 2022, Kenya.** Source: IPC food insecurity projections as of 28 September 2022.

According to the IPC July-September 2022 analysis, about 3.5 million people (24% of the ASAL population) were projected to face high levels of acute food insecurity – IPC Phase 3 or above, with approximately 2.7 million people in IPC Phase 3 and 785,000 people in IPC Phase 4<sup>32</sup>. These numbers represent an increase of 10% from the same period in 2021 when 2.1 million people were categorized in IPC Phase 3 and IPC Phase 4. About 4.4 million people were projected to face high levels of acute food insecurity up till December 2022 (IPC Phase 3 or above) (Figure 2). Overall, 3.1 million people (21% of the population analysed) will likely be in IPC Phase 3 and 1.2 million people (8% of the population analysed) in IPC Phase 4 level<sup>32</sup>. The food insecurity is primarily driven by the fourth successive below- average rainy season, localised conflict and high food prices as a result of the war in Ukraine and low in-country production. The most affected counties representing 40% of the country’s population in IPC 3 and above are Isiolo, Turkana, Garissa, Mandera, Marsabit, Samburu, Wajir and Baringo – all of which are predominantly support pastoral livelihoods. The impact of the recent rains have been insignificant to local livelihoods as it only provided limited regarding access to potable water.

The worsening household food security situation has resulted in acute malnutrition rates across the counties with communities becoming more vulnerable. An upsurge of infectious diseases like chikungunya, dengue fever, measles and visceral leishmaniasis has been recorded<sup>31</sup>. The number of cholera cases reported on a weekly basis has shown a worrying increase and as of 16 December 2022, a total of 2,451 cholera cases including 868 confirmed (95 culture and 773 rapid test) were reported<sup>33</sup>. Most of the cases were reported from Garissa 1,144 (47%), Nairobi 471 (19%), Machakos 257 (10%) and Kiambu 215 (9%) respectively. The outbreak has also affected the IDP and refugee community, including the country’s largest refugee camp, Dadaab. Among the drought-affected counties, Turkana, Wajir, Marsabit, Mandera and Garissa have an active outbreak of measles. Garissa, Tana River and Wajir counties report active cholera outbreaks<sup>31</sup>.

Under the vaccination programme in Kenya, the WHO County Office provided targeted technical assistance and support to the MoH Counterparts during the measles and rubella outbreak response (OBR) vaccination exercise that took place between 9 and 18 December 2022. The national cumulative coverage for the OBR campaign was 85% and all counties recorded over 80% coverage except Marsabit (52%) and Mandera (79%)<sup>33</sup>. As part of the outbreak response, measles Supplementary Immunization Activities (SIA) in seven droughts and food insecurity-affected counties

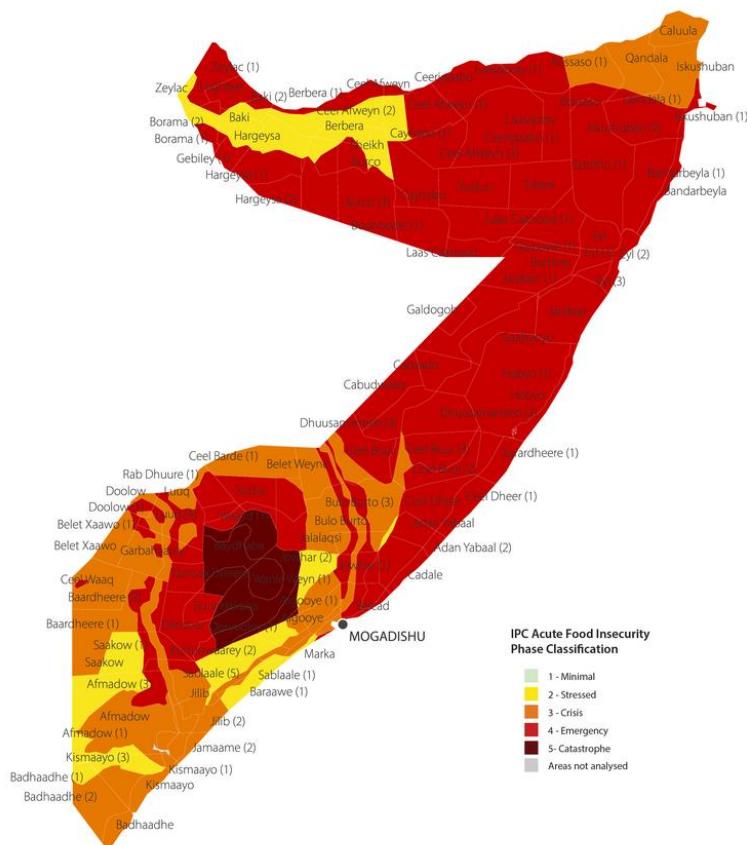
were conducted in December 2022 supported by WHO and other health partners. The recent cholera outbreak has affected 12 counties. The MoH is planning to conduct a reactive OCV campaign in selected sub-counties in Nairobi and Garissa County by early 2023<sup>31</sup>.

### Somalia

The current drought exacerbates the complex security and humanitarian challenges in Somalia. In November 2021, the Federal Government declared it as a national emergency, due to its impact on livelihood and food security. Estimates suggest that 7.6 million of the 16.9 million Somalis are in need of humanitarian assistance<sup>34</sup>. Approximately 8.3 million people across the country are expected to face IPC Phase 3+ level of acute food insecurity between April and June 2023<sup>35</sup>. The projected numbers are higher than the previous estimates in some areas projected to be IPC 5, especially in six districts in the South West State and five districts in the Banadir Region. With an estimated 6.7 million people already in need of urgent humanitarian assistance and protection<sup>35</sup>, an estimated 3.2 million internally displaced persons and 752,000 newly displaced are estimated. Just like in Ethiopia and elsewhere in the region, the drought leads to crop failure, loss of livestock, food insecurity and increased SAM and MAM admissions to nutrition programs<sup>36</sup>.

The results of recent IPC surveys conducted showed that an estimated 1.8 million children will be acutely malnourished. This includes 513,550 who are likely to be severely malnourished through July 2023<sup>36</sup>. The nutrition situation has worsened in most parts of the country, with children, lactating women and people on the move being the most-severely impacted. Acute malnutrition case admissions among children under the age of five have continued to rise substantially over the last few months<sup>36</sup>.

According to the International organization for migration (IOM) displacement tracking matrix data, a total of 1.1 million people have been displaced by drought since November 2021 when the Federal Government of Somalia declared a state of emergency due to drought. Out of these numbers, 302,010 are in Gedo region where displaced people are located in 217 settlement areas. Sixty-six of these are IDP sites and the rest (151) are non-IDP sites. Displacement trends for the last few months in the region show that 97% of those affected were displaced in December 2022, indicating a deterioration of the situation.<sup>37</sup>



**Figure 2: Projected food security outcomes April – June 2023, Somalia.** Source: IPC food insecurity projections as of 13 December 2022.

Based on previous drought displacement patterns in Somalia, affected populations are likely to move from rural to urban centres. Further displacement into major cities and IDP camps may overwhelm critical services such as health care, increasing exposure to infection and leading to disease outbreaks (i.e., acute watery diarrhoea, cholera, measles) and other major concerns related to a lack of health services.

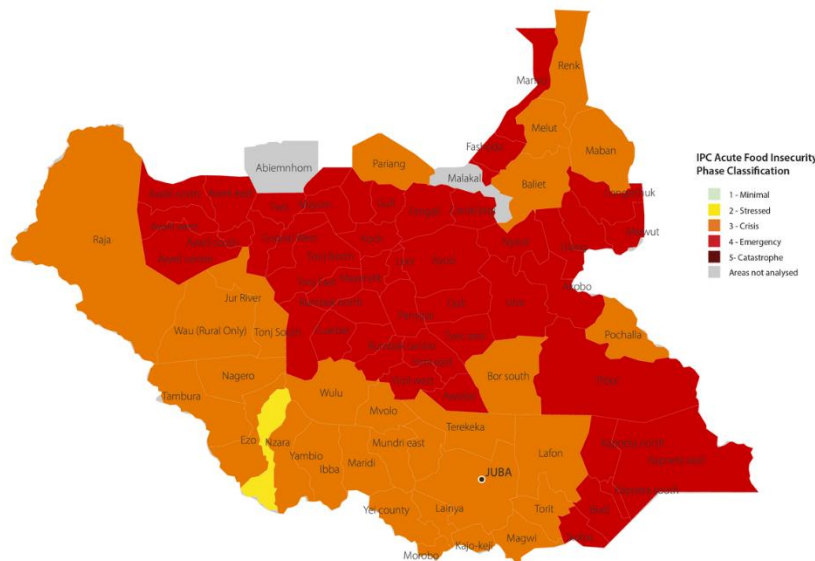
The total estimated acute malnutrition burden in Somalia is expected to increase in 2023<sup>36</sup>. The results of IPC surveys conducted between May and July 2022 and subsequent country-wide IPC acute malnutrition analysis conducted in August 2022 showed that an estimated 1.8 million children will be acutely malnourished including 513,550 who are likely to be severely malnourished through July 2023<sup>36</sup>. Acute malnutrition case admissions among children under the age of five have continued to rise sharply for the last few months<sup>36</sup>.

The country is experiencing multiple disease outbreaks, including cholera, measles, dengue fever and malaria. A total of 16,880 (629 confirmed) measles cases were reported as of 23 December 2022, the highest number reported over the past three years<sup>38</sup>. A vaccination campaign was conducted from 12-16 November 2022. As of December 2022, a total of 13,430 cholera cases (893 confirmed) were reported. The number of cases continued to increase since August 2022. Due to the ongoing cholera outbreak, 73 people have died with a CFR of 0.5%<sup>38</sup>. The rapid response taken by WHO in collaboration with the MoH and other health partners has contributed to the reduction of cases (by 13%) in the last two weeks in December compared to the first two weeks. In Dhobely/Afmadow, cases were reduced by 60% in the last two weeks of December compared to the previous two weeks with no deaths reported. In Kismayo, cases were reduced by 57% by the end of December compared to November<sup>37</sup>. By the end of 2022 a total of 15,653 cases of cholera including 88 deaths (CFR 0.6%) were reported across Somalia.

## ● South Sudan

Due to extreme climate events like flooding and drought, as well as ongoing conflicts, South Sudan is at high risk of facing extreme food insecurity and malnutrition<sup>39</sup>. Excessive rainfall for the fourth consecutive year in 2022 disrupted the production of crops, severely affected livestock, and impacted livelihoods. These unprecedented climate events are worsening the already high levels of food insecurity caused by ongoing conflict and the global food crisis<sup>39</sup>. The central parts of the country, which are the most heavily impacted by multi-year flooding, remain the areas with the highest levels of food insecurity. Conflict and insecurity, fuelled by sub-national and inter-communal violence, crime and wide-scale impunity, continue to be among the main drivers for humanitarian needs in South Sudan. An estimated 9.4 million people in South Sudan, including 2.2 million women, 4.9 million children and 337,000 refugees, are projected to require humanitarian assistance and protection services in 2023, a 5% increase from the last year's number<sup>47</sup>.

More than half the population (6.6 million) are currently living with a high-level IPC classification (level 3 or above) of food insecurity<sup>40</sup>. Jonglei (68%), Unity (67%), Northern Bahr el Ghazal (62%), Upper Nile (59%), Warrap (57%), and Lakes (57%) are the most affected regions, where over 50% of the population are estimated to be in IPC Phase 3 or above<sup>41</sup> (Figure 3). The situation is expected to worsen during the lean season, April-July 2023, with an estimated 7.8 million people (63% of the population) to likely face IPC Phase 3 acute food insecurity or higher<sup>40</sup>.



**Figure 3: Projected food security outcomes April – July 2023, South Sudan.** Source: IPC food insecurity projections as of 31 December 2022.

A national emergency was declared on 10 September 2022 due in the wake of flooding. More than one million people are affected in 36 counties and Abyei administrative areas across nine states. A total of 62 deaths were related to the current flooding<sup>42</sup>. Impacts of recent flooding included increased cases of snake bites (468 cases), damaged health facilities (45) and nutrition facilities (25), an increased caseload of malaria, acute watery diarrhoea, acute respiratory infections and depletion of essential drugs/supplies in health facilities<sup>43</sup>.

South Sudan is also home to the world's fourth most neglected displacement crisis with an estimated 2.2 million people displaced in the country while more than 2.3 million South Sudanese refugees are hosted in the neighbouring countries<sup>47</sup>. Ongoing conflict and political instability in South Sudan, combined with extreme climate events, have resulted in large-scale internal and cross-border displacement. Since 2013 an estimated 2.2 million people have been displaced in the country and as of 30 September 2022 and at least 148,000 returnees and 341,000 refugees were displaced in the country<sup>44</sup>. An estimated 30,000 people were reported to be displaced following a recent conflict (24 December 2022) in the Greater Pibor Administrative Area. This included women and children who arrived in Pibor town after fleeing the conflict areas of Gumuruk and Lekuangle<sup>45</sup>. This latest incident follows another large displacement of civilians in November 2022 that was triggered by conflict in Fashoda County, Upper Nile State. A recent assessment done in December 2022 showed that 17,000 newly displaced people sheltering in three locations in Pibor town, following armed clashes<sup>46</sup>. Conflict in Mangala Payam displaced over 5,000 people and an estimated 3,000 people moved to islands in the Nile River. As of November 2022, the number of newly arrived IDPs to the Malakal Protection of Civilians site from Kodok/Fashoda was just over 3,000 people<sup>46</sup>. In 2023, an estimated 2.8 million people are expected to face physical violence including rape and other forms of gender-based violence, and will need protection assistance<sup>47</sup>. Protracted displacement has affected over 2.2 million people who are unable to return to their homes. An estimated 9.4 million people including 1.9 million IDPs, 1.4 million returnees, 5.8 million host community/non-displaced people and 337,000 refugees will be in need of humanitarian assistance in 2023 (76% of the total population). This represents an increase of 500,000 people in need from 2022<sup>47</sup>.

Poor and crowded living conditions coupled with recurrent flooding increased the likelihood of infectious and water-borne diseases. In turn, this intensified the existing vulnerabilities of those affected who have limited access to basic services such as health, nutrition and education. Women and girls continue to be exposed to high levels sexual and gender-based violence, while children were at risk of recruitment into local defence groups and other forms of abuse, involving abduction and possible trafficking<sup>47</sup>. Moreover, the country is experiencing multiple disease outbreaks including measles, anthrax and hepatitis E as well as an increased numbers of malaria cases. The increase in measles cases continues to be seen across most of the states in South Sudan<sup>43</sup>. Confirmed cases of measles have been reported from 15 counties since the beginning of 2022.

Measles outbreaks have affected all the 10 states, with a total of 3,339 suspected including 383 laboratory (antigen) cases reported from epidemiological week one of 2022 to week five of 2023, with 46 deaths (CFR 1.1%).

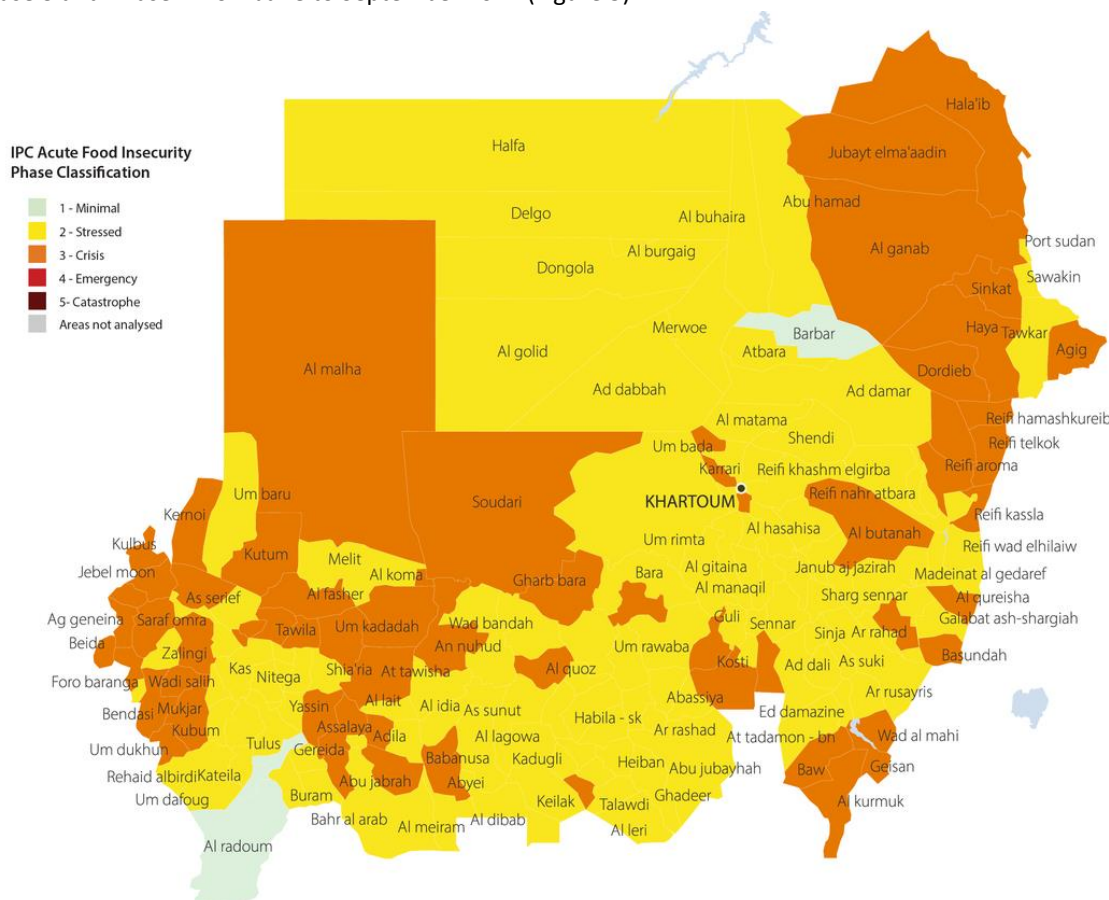
In response to the various disease outbreaks, reactive vaccination campaigns were conducted across the country to be able to control the outbreaks timely<sup>48</sup>. A multi-cluster response against hepatitis E by the HEV Task Force started in November 2022.

WHO is working closely with the MoH and other health partners to strengthen the nutritional response activities and is also providing capacity-building training. A total of 50 health workers were trained on nutritional response in December 2022, and among these, 25 people received training on inpatient management of SAM cases with medical complications<sup>48</sup>. Another 25 received training on nutrition surveillance and reporting via Early Warning and Response to support emergency nutrition response.

## 🌐 Sudan

A combination of conflict, extreme climate event, disease outbreaks and economic deterioration continue to affect Sudan, in turn fuelling the humanitarian needs situation. Approximately 7.7 million people (16% of the total population) are projected to be in IPC Phase 3 or higher, with over 1.5 million projected to be in IPC Phase 4, between October 2022 and February 2023<sup>49</sup>. In 2023, about 15.8 million people across the country are estimated to require humanitarian assistance which is roughly 1.5 million people more than in 2022<sup>51</sup>. Additionally, an estimated 11 million people will need emergency assistance for life-threatening needs related to critical physical and mental well-being<sup>51</sup>.

Several factors account for the deteriorating situation. These include significant increases in the prices of food and other commodity, a reduced harvest, as well as continued conflict<sup>51</sup>. The number of food-insecure people in 2022 increased by about two million compared to last year, to 11.7 million during the lean season<sup>51</sup>. Northern, Western and Central Darfur, along with Khartoum, Kassala, and White Nile were estimated to have the highest projections of IPC Phase 3 and Phase 4 from June to September 2022 (Figure 5).



**Figure 4: Projected food security outcomes April 2022 – February 2023, Sudan.** Source: IPC food insecurity projections as of April 2022.

Food prices remain well above the prevailing level in 2021 in areas like Darfur, Blue Nile, Kordofan, Kassala, and Red Sea states<sup>50</sup>. Inter-communal clashes are also disrupting people's ability maintain a livelihood. Many of these areas will continue to experience food insecurity, especially among IDPs and conflict-affected populations, due to displacement and the inability to access markets and viable livelihood activities.

Sudan is also facing political turmoil since the takeover by the military in October 2021. A political framework agreement on 5 December 2022 was implemented but it is unclear how it will impact the current humanitarian situation in the country<sup>51</sup>. Projections suggest that in 2023, about 15.8 million people, including more than 8.5 million children, will need humanitarian assistance. This is the highest in the past four years, and according to the humanitarian response plan, an estimated 11 million people will require emergency assistance<sup>51 52</sup>. As of October 2022, more than 265,000 people were newly displaced because of localised conflicts and insecurity across Sudan. An additional 349,000 people were affected by recent floods<sup>51</sup>.

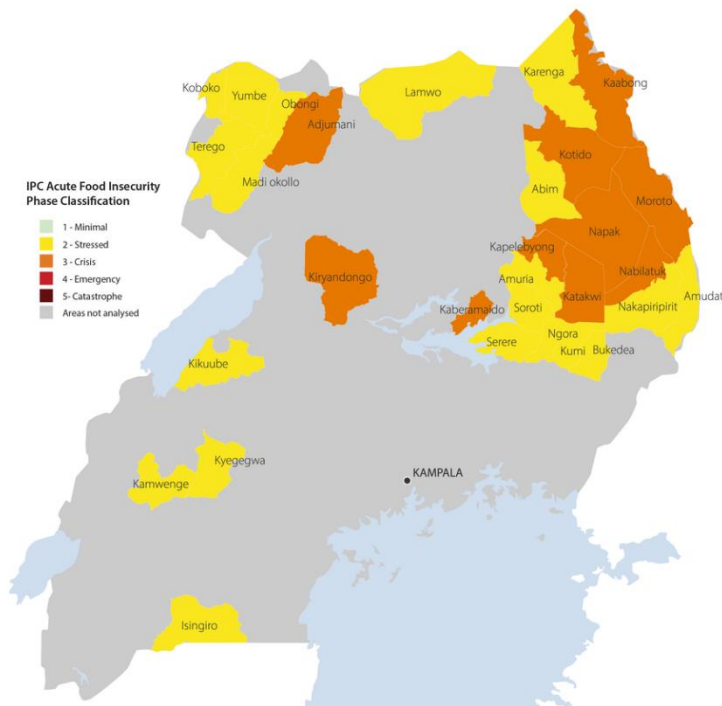
A total of 3.7 million people remain internally displaced and there are about 1.1 million refugees living in Sudan (61% of whom are out of camps and 39% are in camps)<sup>2</sup>. IDPs, refugees as well as host communities are at risk of inter-communal violence, regional conflicts, climate-induced hazards, and major epidemic outbreaks. A total of 11.5 million people are in urgent need of water, sanitation and hygiene (WASH) interventions. Out of 189 localities in the country, 151 face water scarcity, fuelling an increase in water-borne diseases<sup>53</sup>. Due to low immunization coverage, children are facing recurrent disease outbreaks, including measles and other vaccine-preventable diseases. Sudan has one of the world's highest prevalence rates of malnutrition among children<sup>54</sup>. More than three million children are currently suffering from malnutrition and an estimated 611,000 are at risk of death. This number may increase due to the dry weather, high food prices and food shortages. Child marriages, school dropouts and forced recruitment and association with armed groups are on the rise<sup>54</sup>.

There are ongoing disease outbreaks reported in the country including COVID-19, measles, dengue fever, malaria, and hepatitis E<sup>55</sup>. However, vaccination campaigns and other public health interventions have been implemented at different times in response to the outbreaks.

WHO scaled up the nutritional response activities in the past months across the country. Over three million children under five years of age are suffering from wasting; over 611,000 children have SAM and another 2.4 million suffered from MAM. Recently, nutrition activities were undertaken in White Nile state in close collaboration with the MoH. As part of the activities undertaken, WHO conducted a seven-day training course in December, on SAM inpatient management for participants from seven stabilisation centres across six localities in the state facilitated by national actors. WHO delivered 341 Interagency Emergency Health Kits (IEHK) and an additional 85 severe acute malnutrition kits and 170 cholera kits to food-insecure and flood and conflict-affected locations to ensure uninterrupted access to services<sup>53</sup>. Additionally, 69 (support up to 55,300 people for three months) emergency health kits (including 54 IEHK kits, 11 cholera kits, and 4 severe acute malnutrition (SAM/MC) kits) were distributed to five flood-affected and food-insecure counties<sup>53</sup>. In IPC 5 areas the country office team started the support of 11 static and mobile health facilities in collaboration with implementing partners.

## Uganda

The drought and subsequent food insecurity crisis is affecting 19 districts in Karamoja, Lango and Teso regions. In Karamoja region, the impact of food and livestock production over the last two years has been particularly severe. It was average or below average, causing widespread food insecurity<sup>62</sup>. It is anticipated that the food security situation may improve slightly in the first months of 2023, with a reduction of the population in IPC Phase 3 or above from 518,000 (41%) to 315,000 (25%) due to the onset of the harvest season (Figure 4)<sup>62</sup>.



**Figure 5: Projected food security outcomes September 2022 – January 2023, Uganda.** Source: IPC food insecurity projections as of August 2022.

In the past three years, Karamoja, Teso and Lango regions have faced several public health challenges on account of the drought. Among the three regions, Moroto, Kaabong and Karenga districts are the most affected. In the Karamoja region, an estimated 1.2 million people need humanitarian assistance, of whom about 517,000 people are food insecure<sup>62</sup>. The main challenges in these regions are malnutrition and the threat of disease outbreaks. The country has experienced an outbreak of the Sudan Ebola Virus (SUDV) that affected nine districts with the central districts of Mubende and Kassanda being the epi-centre of the outbreak<sup>56</sup>. A total of 142 confirmed cases were registered, with 55 deaths and 87 recoveries. Other infectious disease outbreaks reported in 2022 included yellow fever, rift valley fever, Crimean Congo haemorrhagic fever (CCHF), and anthrax<sup>57</sup>. In Karamoja, there was an increase in SAM admissions from January to September 2022, however, a decline was registered in October, November and December 2022. This could be ascribed to the arrival of the harvest season which started in the last quarter of 2022<sup>58</sup>.

The MoH with support of WHO during the month of December has participated in the nutrition emergency review meeting in Karamoja supported by UNICEF to improve the nutritional response. The team provided technical support to develop the District Nutrition Action Plan (DNAP) in the Kaberamaido and Amuria districts. The nutrition plan will guide the MoH and other health partners in better planning and implementation of nutrition actions. WHO is also supporting the Family-led MUAC capacity-building training in various food-insecure districts. A total of 222 health workers, community leaders and 353 caretakers were accommodated at health facilities<sup>66</sup>.



## Health status and threats

Climate-induced extreme weather in the GHoA is aggravating health risks for a significant section of the population. Malnutrition is of major concern, with high levels of MAM and SAM reported in several countries. Wasting, which includes both MAM and SAM, stands at or exceeds 15% of the population, and is considered to be critical<sup>59</sup>. The malnutrition situation has reached level three, as classified by the IPC<sup>60</sup>. Extreme weather events, such as droughts and floods, are contributing to displacement and conflict, heightening the risk of further disruptions of access to food and healthcare. As a consequence, the resultant reduction in vaccination coverage has led to a higher risk of outbreaks of vaccine-preventable diseases.

### Key health risks

The primary immediate health risks for the affected population over the next six months (Jan-June 2023) are summarized in Table 1.

**Table 1: Key health risks in the Greater Horn of Africa region in the context of the drought and food insecurity crisis, January-June 2023.**

Public health risk	Likelihood	Public health consequences	Level of risk*	Rationale
Malnutrition	Certain	Major	Red	Drought and ongoing food insecurity has historically had a profound impact on the nutritional status of populations in the region, leading to high mortality. Malnutrition prevalence is already at emergency levels in most GHoA countries.
Acute watery diarrhoea, including cholera	Certain	Major	Red	Lack of access to safe water and appropriate sanitation, poor hygiene, and overcrowding. Malnutrition has exacerbated outcomes and complicated treatment. Recurrent/ongoing cholera outbreaks in Ethiopia and Somalia.
Measles	Almost certain	Major	Red	Low vaccination coverage, high number of malnourished children. Ongoing outbreaks in Ethiopia, Somalia, Sudan, South Sudan, Uganda, Kenya.
Vector-borne diseases	Almost certain	Moderate	Orange	High potential for malaria outbreaks across the affected countries. When combined with poor nutrition and other exacerbating factors, there is potential for a high degree of excess mortality.
Maternal health	Likely	Moderate	Orange	Extremely high maternal mortality rates occurring throughout these countries. Generally poor coverage of perinatal care and skilled birth attendants.
Chronic infectious diseases (TB/HIV)	Unlikely	Minor	Yellow	Low prevalence of HIV, but also low coverage of ART in a number of affected countries. Interruption of treatment likely for displaced populations. Gradual reduction on TB incidence and death rate in most of the countries
Injury/trauma and sequelae`	Likely	Minor	Yellow	Ongoing conflict occurring in some affected areas. Increase in conflict and violence may accompany worsening of the food insecurity crisis.
Mental health	Likely	Minor	Yellow	Population displacement, high mortality, and exposure to violence are risk factors for mental health issues.

\*Level of risk:

**Red: Very high risk.** Could result in high levels of excess mortality/morbidity.

**Orange: High risk.** Could result in considerable levels of excess mortality/morbidity.

**Yellow: Moderate risk.** Could make a minor contribution to excess mortality/morbidity.

## ● Food insecurity (projections)

The current climate extremes in the region have severely affected the viability of livestock and crop production, forcing millions of people to migrate within or outside their own country in search of food, water source and viable land<sup>4</sup>. Additionally, global economic developments including inflation and the war in Ukraine have pushed up the prices of staple foods, further worsening food insecurity in the region, in turn impacting on the livelihoods of millions<sup>61</sup>. Across all seven countries more than 46 million people are projected in IPC phase 3+ and over seven million people are considered to be in IPC phase 4<sup>60</sup>. Moreover, about 361,000 people in Somalia and South Sudan combined are projected to be experiencing IPC phase 5 level of food insecurity<sup>40 36</sup>. This indicates that an urgent response is needed to prevent considerable mortality.

Projections in **Djibouti** from July through December 2022 suggested that 192,168 people (16% of the total population), are estimated to be experiencing high levels of food insecurity (IPC Phase 3 or above), with about 5,000 people in IPC Phase 4. The same estimates show that about 12,390 (1%) are in Phase 4 emergency<sup>14</sup>. This points to a worsening situation compared with the previous projections covering March –June 2022. Thus, there is need for an urgent response to save lives, to reduce food consumption gaps, and protect the livelihoods of those affected.

According to the most recent IPC projection in **South Sudan**, the situation is expected to worsen, with an estimated 7.76 million people (63% of the population) likely to face acute food insecurity (crisis level or above) in April–July 2023, an 11% increase from previous projections<sup>40</sup>. This estimate includes 2.9 million persons in IPC phase 4 and another 43,000 in IPC phase 5 (Figure 3). The most significant deterioration in food security resulting from the drought is in Eastern Equatoria, in the southeast part of the country, as shown in figure 3. Dry conditions have affected the greater Kapoeta region and decimated livelihoods. In Jonglei (74%) and Unity states (77%), a vast majority of the population are likely to be in IPC phase 3 (crisis) or above, with sections of the population experiencing IPC phase 5 (catastrophe) acute food insecurity from April to July 2023<sup>40</sup>. An estimated 1.4 million children are likely to suffer from acute malnutrition over the same period. This is about 7% higher than previous estimates (1.3 million)<sup>41</sup>. Overall, the proportion of the population facing high levels of food insecurity (IPC Phase 3 or above) and malnourishment is at the highest level<sup>41</sup>, according to available data.

Projections in **Kenya** from October to December 2022 estimated that nearly 4.4 million people were in IPC phase 3 or higher, with over 1.2 million people in IPC phase 4, pointing to the need for urgent action to reduce food gaps and to protect livelihoods. IPC projections for February–May 2023 show nine counties reaching phase 4. This will likely increase the 4.4M people currently living above IPC 3 (Figure 2)<sup>32</sup>.

The increased need for support in much of the region comes in the wake of an anticipated reduction in funding for emergency health services from April 2023 onwards. About 7.6 million people across **Somalia** (about 40% of the population), are expected to be in IPC phase 3 or above<sup>34</sup>. Among these, 2.7 million people are expected to be in IPC phase 4 level and 727,000 in IPC phase 5 (Figure 2). The IPC projection for February–May 2023, ascribes IPC phase 5 to the agropastoral populations of Baidoa and Burhakaba districts, along with the displaced populations in the town of Baidoa, in the Bay region of southern Somalia<sup>36</sup>.

In **Sudan**, about 7.7 million people (14% of the total population) are projected to be in IPC phase 3 or higher, with over 1.6 million set to enter phase 4 by February 2023. Several factors account for the worsening situation. These include significant increases in price of food and other commodities, a reduced harvest and continued conflict. Northern, Western and Central Darfur, along with Khartoum, Kassala, and White Nile had the highest projections for IPC phase 3 and 4 during the June–September 2022 projections.

An estimated 1.1 million people (15% of the population assessed) in **Uganda** are projected to be in IPC phase 3 or higher, with close to 51,000 in IPC 4, from August 2022 through February 2023<sup>62</sup>.

In **Ethiopia**, the OCHA humanitarian response plan estimates that, 22.6 million people will be food insecure mainly due to the drought in the southern, south-eastern and eastern parts of the country, coupled with the effects of conflict in the northern and western regions, together with high inflation



and the disruption of income and food sources due to displacements<sup>20</sup>. Overall, a total of 11.8 million people are likely to be food insecure due to severe livelihood losses in the drought-affected areas<sup>63</sup>.

## ● Population mortality

Despite ongoing efforts to reduce mortality rates, the GHoA continues to face significant deaths, many of which are preventable. However, it is worth noting that the crude mortality rate for the GHoA countries fell from 18 per thousand in 1990 to eight per thousand people in 2020, representing a 50% reduction<sup>64</sup>. Similarly, the infant mortality rate has also gone down, from 103 in 1990 to 46 per one thousand live births in 2020 – a reduction of 56%. The progress made is now at risk of stagnating and even reversal due to the current overlapping crises including conflict, climate events, food insecurity and disease. With projections of worse to come, the situation seems set to impede efforts to improve mortality rates in the region.

A study conducted by researchers at the LSHTM suggested that the 2017-2018 drought caused an excess of 44,700 deaths in Somalia<sup>65</sup>. An analysis of the crises in 2010-2012, where famine accounted for the majority of deaths, estimated 256,000 attributable deaths, partly due to the provision of humanitarian assistance. So far, no up-to-date data on the current crisis in the GHoA is available.

The high mortality rate in the GHoA countries is largely the result of climate change which has made droughts and floods more regular and severe, with malnutrition and diarrhoea among the main causes of deaths<sup>66</sup>. An example is Djibouti where more than 35% of under-five deaths can be linked to malnutrition<sup>67</sup>. Somalia has also bore the brunt of climate events and, to some extent, economic upheaval, and conflict.

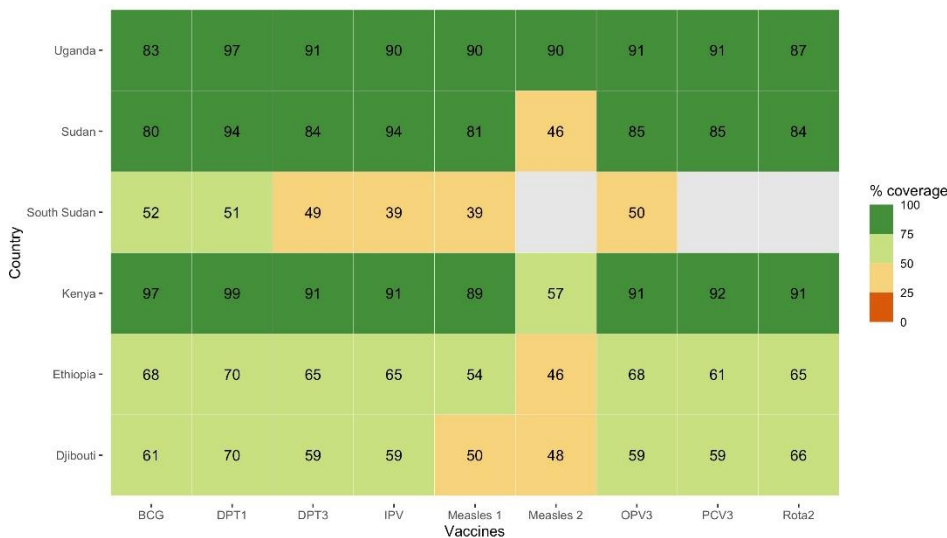
In 2020, the estimated crude mortality rate in Somalia was 11 per 1000 people according to small-scale studies<sup>68</sup>, compared to seven per 1000 people in Djibouti and Sudan (Table 2)<sup>69</sup>. Life expectancy was also lower in Somalia (57 years), compared to Djibouti and Ethiopia (67 years) and Sudan (66 years). Similarly, the infant mortality rate was higher in Somalia (73 per 1000 live births) compared to Djibouti (47 per 1000 live births) and Sudan (40 per 1000 live births)<sup>69</sup>.

**Table 2: Key national mortality indicators in the seven countries in the Greater Horn of Africa, in 2021<sup>69</sup>.**

Country	Life expectancy at birth (years)	Crude mortality rate (per 1000 people): [2020 data]	Life expectancy at birth (years)	Under-five mortality rate (per 1000 live births):	Infant mortality rate (per 1000 live births) [2020 data]	Neonatal mortality rate (per 1000 live births)
Djibouti	62	7	62	54	47	30
Ethiopia	65	6	65	47	35	26
Kenya	61	5	61	37	31	18
Somalia	55	11	55	112	73	36
South Sudan	55	10	55	99	63	40
Sudan	65	7	65	55	40	27
Uganda	63	6	63	42	32	19

## ● Vaccination coverage

Vaccination coverage estimates in the GHoA countries have largely been in line with the recommended levels over the last three years<sup>70</sup>. The Global Vaccine Action Plan developed by the WHO has set vaccination coverage targets deemed appropriate to control disease spread at 90% for national coverage and 80% for district-level coverage<sup>71</sup>. However, a measles vaccination coverage of 90-95% is recommended for both doses in order to prevent and prepare for any future outbreaks<sup>72</sup>. Vaccination coverage estimates at the end of 2021 varied by country and by vaccine (Figure 6).



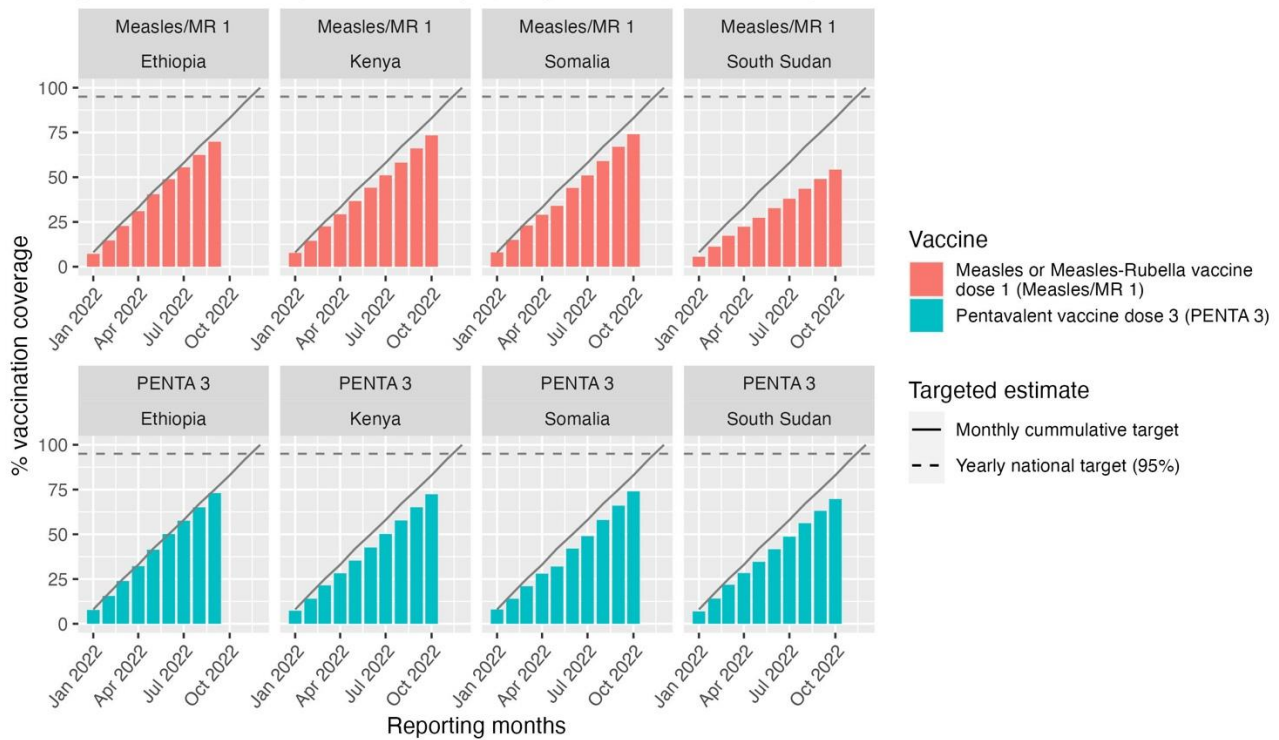
**Figure 6: Vaccination coverage estimates in the Greater Horn of Africa countries for 2021.** Source: WUENIC vaccination data 2021

Uganda, Sudan and Kenya reported better coverage estimates for most of the vaccinations compared to the other countries in the region in 2021<sup>70</sup>. South Sudan, Somalia, Ethiopia and Djibouti were reported to have had coverage estimates of below 80% in the last three years. Compared to the other countries in the GHoA region, Uganda has recorded better overall coverage in 2021. In Uganda, except for BCG and Rota vaccines, all other vaccines recorded a coverage of more than 90%. Kenya and Sudan also managed to record an improved immunization coverage in 2021<sup>70</sup>. In South Sudan the coverage of the third dose of the Pentavalent vaccine and the first dose of measles vaccines were below 50%. As per the WHO and UNICEF estimates of national immunization coverage (WUENIC) estimates, Djibouti showed a gradual reduction in the Pentavalent vaccine (Penta 3) and measles 1 coverage estimates during the years in questions. In Somalia, according to the 2021 official immunization coverage of the MoH, all vaccines in the country showed a reported coverage above 80%<sup>73</sup>.

WHO and UNICEF are providing support to the GHoA countries with aim of strengthening routine vaccination coverage in addition to conducting supplementary vaccination campaigns to meet the 90-95% coverage target. Recent data of country MoHs suggest that the vaccination coverage for the first dose of the measles and rubella vaccine (MR 1) and the third dose of the Penta 3 vaccine have been increasing gradually in all the GHoA countries (Figure 7). Projections suggest that if current trends continue, Ethiopia, Kenya and Somalia will have achieved at least 80% coverage by the end of 2022 for the MR 1 and Penta 3 vaccines. South Sudan is expected to have reached the target for Penta3<sup>74</sup>. In response to various measles outbreaks, countries in the GHoA conducted several vaccination campaigns in order to break the transmission chain and to control each outbreak within reasonable time<sup>66</sup>.

### Estimated vaccination coverage among the GHoA countries in 2022

[Source: WHO Country Offices - Ethiopia, Kenya, Somalia, South Sudan]



**Figure 7: Cumulative coverage of essential vaccinations among children <1 year in Ethiopia, Kenya, Somalia, and South Sudan against the yearly target from January-October 2022.** The dashed line indicates the 95% national level target; and the uninterrupted line indicates the cumulative monthly target. A) Coverage of the first measles and rubella (MR1) vaccine dose against the yearly targets for 2022. B) Coverage of the third Pentavalent (Penta 3) vaccine dose against the yearly targets for 2022. Source: country Ministries of Health

Low vaccination rates can contribute substantially to ongoing disease outbreaks in the region. Displaced persons are particularly vulnerable due to the likelihood of being malnourished coupled with having to find shelter in crowded conditions<sup>13</sup>. Routine immunization campaigns have been underway in the region to reduce the spread of vaccine-preventable diseases (VPD)<sup>66</sup>. At the national, sub-national and in the most affected regions, additional campaigns are being conducted to improve the immunization coverage against infectious diseases and to prevent further outbreaks. As of December 2022, six of the seven countries (Kenya, Somalia, South Sudan, Sudan, Ethiopia and Djibouti) are experiencing measles outbreaks and three countries (Somalia, Kenya and Ethiopia) are dealing with extensive outbreaks of cholera<sup>75</sup>.

In response to the **measles** outbreaks in the GHoA region, countries are conducting additional vaccination campaigns to prevent further outbreaks and the spread of the disease. A total of 588,153 children aged six months to 14 years were vaccinated during reactive measles vaccination campaigns in 11 affected counties in South Sudan<sup>66</sup>. Nationwide catchup measles vaccination campaigns are planned to take place in April 2023. There is an ongoing measles outbreak in the Palabek Refugee Settlement in the Lamwo district of Uganda, and to control the outbreak, a total of 17,626 children (54.6%) 0-14 years old were vaccinated as of October 30, 2022. In Kenya, measles SIAs were conducted in December across seven drought and food insecure counties (Marsabit, Turkana, West Pokot, Wajir, Mandera, Garissa and Nairobi) with support from WHO and other health partners. There are currently active measles outbreaks in 25 woredas in Ethiopia. As part of the response, measles vaccination campaigns were conducted in 55 affected and high-risk woredas of Amhara, Oromia, SNNPR and the Somali region since 2022. This was part of an outbreak response intervention conducted with support from WHO<sup>66</sup>. In response to an outbreak of measles in the regions of Arta, Dikhil, Djinouti-ville and Tadjourah, a measles vaccination campaign was conducted in September, vaccinating 39,392 children (86.6% of target) between six and 59 months old. Vitamin A supplements were also given to 37,000 children as part of

this campaign<sup>66</sup>. In Somalia, an integrated nationwide polio and measles vaccination campaign was conducted in November 2022, achieving 91% of target for polio and 90% of the target coverage for measles<sup>73</sup>.

As part of the **cholera** outbreak response in South Sudan, a total of 1,584,147 OCV doses (94% of OCV doses received) were administered in two rounds during vaccinations campaigns conducted throughout the country<sup>48</sup>. In areas most affected by climate change and food insecurity, there are plans to follow up with additional rounds. In Somalia, two rounds of OCV campaigns were conducted in the four affected states, with coverage of 96% and 98.9% of the target respectively. This was in response to the ongoing cholera outbreaks in the country<sup>76</sup>. Plans are underway to vaccinate more people with additional doses that have already been approved by the International Coordinating Group (ICG). In Kenya, a cholera outbreak has affected 12 counties - Nairobi, Kiambu, Nakuru, Uasin Gishu, Kajiado, Murang'a, Machakos, Garissa, Meru, Nyeri, Wajir and Tana River. The MoH is planning to conduct a reactive campaign in selected sub-counties in Nairobi and Garissa County<sup>33</sup>. From January 13, 2023, an Oral Cholera Vaccination (OCV) campaign is planned in Somali and Oromia Regions<sup>77</sup>.

A **polio** vaccination campaign was conducted in November in Somalia in all the accessible areas in the South-Central States District, targeting children under the age of 10. A total of 4,369,029 children were vaccinated, with an overall administrative coverage rate of 92%<sup>76</sup>. Another round of polio vaccination was conducted in October for the same target age group, vaccinating 4,428,635 children (93% coverage). In Djibouti, a successful third round vaccination campaign against polio was conducted in all six regions in October 2022, and 158,445 children were vaccinated (101% of the target). During the fourth round of vaccination against polio, also in all six regions, a total of 180,395 children were vaccinated, and overall administrative coverage of 115% was achieved. Independent monitoring survey results showed a coverage of 96%.

In South Sudan, vaccination campaigns were conducted in response to the **hepatitis E** outbreak. The campaigns were rolled out in two rounds in March and July 2022 during which 24,469 people (91% of target) were vaccinated in the first round and 19,861 (82% of target) were vaccinated in the second round<sup>48</sup>. A yellow fever vaccination campaign was also conducted in Kenya's Isiolo and Garissa counties, in August 2022, targeting those between nine months and 60 years old<sup>31</sup>.

## ● Determinants of health

### Internally Displaced Persons and Refugees

IDPs and refugees are highly vulnerable populations in the current food insecurity emergency in the GHoA. Both groups face risks of malnutrition, communicable diseases as well as high levels of morbidity and mortality, increasing the need for preventive and curative healthcare services<sup>13</sup>. Supply chain disruptions attributable to the war in Ukraine, coupled with record fuel and energy prices, caused market shocks and speculations, amplify food shortages. Devastating levels of food scarcity are propelling displacement not only within countries, but also across borders. According to UNHCR, more than one million people in Somalia have been displaced due to food insecurity, and 750,000 were displaced in 2022. Some of them remain within the country while others were crossing into Kenya and Ethiopia<sup>2</sup>.

**Table 3: Internally Displaced Persons and Refugee population by GHoA country.** Source: UNHCR Regional Dashboard RB EHAGL: Refugees and asylum-seekers by situation as of 30 September 2022

Countries	Number of IDPs	Number of refugees	Number of returnees
Djibouti	6,086	37,000	-
Ethiopia	4.57 million	876,000	1,000
Kenya	0.19 million	566,000	-
Somalia	2.97 million	34,000	93,000
South Sudan	2.23 million	341,000	600,000
Sudan	3.71 million	1.14 million	2,060
Uganda	-	1.52 million	-
<b>GHoA total</b>	<b>13,480,000</b>	<b>4,514,000</b>	<b>694,000</b>

The number of refugees and IDPs in the region has been increasing steadily over the last three years due to the worsening drought and food insecurity crisis, along with ongoing conflicts<sup>78</sup>. As of October 1, 2022, at least 13.4 million people were reported to be internally displaced in the GHoA countries (Table 3). Ethiopia and Sudan have the highest number of IDPs in the region, while Uganda and Sudan host the highest number of refugees. Due to the drought situation, a total of 1.77 million persons have been internally displaced from Somalia and Ethiopia since the beginning of 2022<sup>79</sup>. There are more than 4.5 million refugees and asylum seekers in the region, most of whom are hosted in Uganda, Sudan and Ethiopia respectively (Table 3)<sup>2</sup>. In Kenya's Dadaab and Kakuma refugee camps, 38,978 new refugees arrived in October and November 2022, most from Somalia and South Sudan<sup>80</sup>. At Melkadida refugee camp in Ethiopia, 15,829 new refugees arrived from Somalia since January 2022. As of September 2022, 2,508 Ethiopian refugees arrived in Somalia<sup>78</sup>.

## Water, sanitation, and hygiene (WASH)

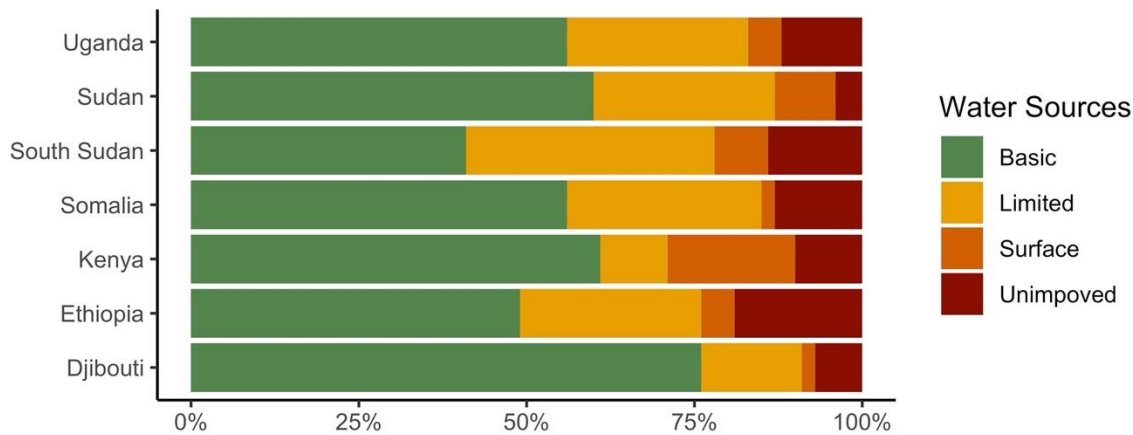
Lack of access to adequate and safe water, along with poor sanitation and hygiene practices, are major contributing factors to the spread of infectious diseases, particularly during extended periods of drought. The provision of clean and reliable water supply access in drought-prone areas, such as in low-lying pastoral regions throughout the GHoA region, remains a huge challenge despite ongoing emergency response efforts. About 45 million people in Ethiopia have no access to adequate water sources. Sixty to 80% of communicable diseases are attributed to limited access to safe water and inadequate sanitation and hygiene services<sup>81</sup>. The movement of populations in search of water from protected and even unprotected sources, was observed in the Southern and South-Eastern parts of the country at end of 2022, complemented by increased water trucking<sup>75</sup>. These actions further increase the risk of contamination of drinking water, resulting in water-borne diseases. It is therefore critical to ensure that both adequate and safe water is provided to affected populations. Just as important is to ensure that education on recommended WASH practices is communicated.

It is estimated that 95% of water sources in the Dawa Zone in the Somali region, and 82% in the Borena Zone in Oromia have dried up, leaving about 774,000 people to face water shortages across the two most drought-affected zones in **Ethiopia**<sup>82</sup>. There are currently 84 non-functional boreholes in the Somali region alone that require maintenance. Over 100 boreholes are also in need of maintenance, while 24 sealed schemes (newly drilled boreholes) require post-construction services, and 14 river intakes and 13 rural piped schemes require maintenance. An estimated 2.3 million people need emergency water trucking and over 100 water trucks are required to narrow the gap in the Somali region<sup>82</sup>. Across all the drought-affected zones, the price of water sold by private vendors (water trucking and donkey carts) has increased by up to 300%, with millions living without access to clean water.

In **South Sudan**, access to basic sources of clean water is below 50% (Figure 8). Flooding in September and October 2022 displaced more than one million people in 36 counties and in Abyei administrative areas across nine states<sup>42</sup>. Health and nutritional facilities were also damaged, and in the areas affected by flooding, the scarcity of safe drinking water is on the rise. As a result, there is a high risk of water-borne diseases like acute watery diarrhoea, cholera, hepatitis A & E and typhoid.

**Djibouti** relies mainly on deep underground water sources, usually fed by rainwater infiltration. Yet more than 15% of the country's population still has to resort to open defecation due to a lack of access to improved toilets. This increases the risks of diarrheal and other water-borne diseases<sup>83</sup>.





**Figure 8: Estimates of use of water service/source In GHoA countries. Access to drinking water WHO/UNICEF estimates 2021<sup>84</sup>.**

Drought in Djibouti is impacting the level of groundwater, which is the source of about 95% of all drinking water in Djibouti. This results in fears of reduced supply (Figure 8)<sup>84</sup>. Other needs reported are for food and water for pasture and animals.

## Shelter

The growing number of IDPs and refugees in the GHoA region remains a major challenge, and with that the requirement for adequate and safe shelter. Typically, newly displaced populations arrive in the already overcrowded IDP camps or similar areas, in search of water and food<sup>2</sup>. The lack of safe shelter is a major risk factor for the spread of transmissible diseases<sup>85</sup>.

A recent site assessment conducted in the towns of Berdale and Diinsoor in Somalia in November 2022, and Cadaado in December 2022, revealed surprising evidence of overcrowding. There were 44 IDP sites hosting 13,626 households or 93,725 individuals. A total of 17 IDP sites were hosting 3,958 households or 25,694 individuals, and nine IDP sites were identified hosting 7,902 households or 47,424 individuals. This represented an increase in the number of IDP sites in both areas, compared to the last assessment conducted in July 2022. There was also an increase in the number of households or individuals both in Diinsoor and Cadaado.

Ethiopia is the third largest refugee-hosting country in Africa<sup>2</sup>. A total of 880,021 refugees (mostly from South Sudan, Somalia, Eritrea and Sudan) are hosted in the country<sup>86</sup>. According to the IOM, as of July 2022 there were 2.72 million IDPs and an estimated 2 million returning IDPs in the country<sup>24</sup>. The two-year conflict in northern Ethiopia has been the major cause of displacement, especially in the Tigray, Afar and Amhara regions. Only 41.3% of the refugee population in Ethiopia are living in adequate shelters, while the majority (58.7%) are accommodated either in emergency, old or crowded communal shelters<sup>85</sup>. A total of 7,784 emergency shelters were constructed in refugee camps in the Somali, Gambella, Afar, Amhara and Benishangul Gumuz regions mainly to accommodate new arrivals. Additionally, 1,904 transitional shelters were constructed or maintained, including 317 shelters in Serdo and 100 shelters in Alemwach for vulnerable refugees<sup>85</sup>. UNHCR and other health partners have assisted over 800,000 IDPs with shelter repair kits and emergency shelters since the beginning of 2022<sup>20</sup>.



## Health information management landscape, gaps and challenges

### ● Surveillance/early warning, alert, and response capacity

Humanitarian emergencies increase the risk of communicable disease transmission as well as the prevalence of other health conditions such as respiratory infections, diarrheal diseases, tuberculosis and HIV<sup>87</sup>. An effective disease surveillance system is essential to efficiently detect, monitor, and respond to outbreaks of infectious diseases. In the GHoA region, countries are using various health information management systems (HIMS) and tools, such as the Early Warning and Alert Response System (EWARS), the District Health Information System 2 (DHIS2), the Integrated Disease Surveillance and Response (IDSR) framework, and the Health Resources and Services Availability Monitoring System (HeRAMS), to collect health-related data at both the sub-national and national level (Table 4).

**Table 4: Information platforms used by countries in the GHoA region, as of 2022.** \*Considering or in the process of implementing. Source: EWARS, DHIS2, IDSR and HeRAMS.

	EWARS	DHIS2	IDSR	HeRAMS
Djibouti		√		
Ethiopia	√	√	√	√
Kenya		√	√	
Somalia	√	√	*	√
South Sudan	√	√	√	
Sudan	√	√	*	√
Uganda		√	√	

WHO's EWARS is designed to improve disease outbreak detection in emergency settings, such as in conflict-affected countries or following a natural disaster<sup>88</sup>. It is a relatively simple and cost-effective system that typically is deployed during an emergency as an adjunct to the national disease surveillance system. WHO works with MoH and health sector partners to train local health workers to operate the system. EWARS is implemented in Ethiopia, Somalia, South Sudan and in some parts of Sudan<sup>88</sup>.

DHIS2 is an open source, web-based platform coordinated by the Health Information Systems Program (HISP) Centre at the University of Oslo (UiO)<sup>89</sup>. It is mainly used as a health information management system and can be configured to meet the data management needs of a country. Although technical support is provided by UiO, data ownership rests with each individual country. The system is widely used by all the countries in the GHoA region to support the streamlining of health data. It is the most widely used tool for health information management at all levels. Djibouti adopted DHIS2 in 2021 and integration of all its processes into DHIS2 is ongoing.

In 1998, the WHO Regional Office for Africa (AFRO), together with its technical partners, adopted a strategy for developing and implementing comprehensive public health surveillance and response systems in African countries, known initially as Integrated Disease Surveillance, it later on evolved into Integrated Disease Surveillance and Response (IDSR)<sup>90</sup>. The IDSR strategy is a comprehensive, evidence-based approach for strengthening national public health surveillance and response systems at all levels. In 2016, member states endorsed a new IDSR regional strategy for 2020–2030 with the objective of strengthening the capacity for early detection, recording, reporting, analysis and prompt feedback on priority diseases, events and conditions at all levels. It enables the strengthening of national and supranational laboratory capacity to confirm priority diseases and their occurrence as well as the strengthening of the capacity for public health emergency preparedness<sup>91</sup>. The United States Centers for Disease Control and Prevention (CDC) has played a leading role in the development and deployment of the IDSR system since 1998. Ethiopia, Kenya, Uganda and South Sudan are implementing the IDSR system at national level and others like Sudan and Somalia are planning or in the process of implementing the system (Table 4).

The HeRAMS initiative aims to ensure that core information on essential health resources and services is readily available at the country, regional and global levels<sup>92</sup>. Ethiopia, Somalia and Sudan have implemented the HeRAMS system in recent years. Discussions are currently ongoing to implement HeRAMS across the GHoA region (Table 4) to lay the ground for a better understanding of the available services as well as prioritize key areas for resource procurement in the context of the food insecurity crisis.

## ● Gaps and challenges

Health Intelligence and Information Management (HIM) is pivotal in formulating appropriate response and informing internal and external audiences including actors and donors. HIM in the GHoA emergency response requires a comprehensive and cohesive approach regarding data collection, analysis and knowledge sharing. A strong focus on utilizing the existing capacity of health systems and collaboration over partners and sectors to be more effective and resilient is essential. A knowledge gap exists on how the food security crisis is also a health crisis, a better embedding of health in this crisis by collaboration across UN agencies and partners would be necessary to facilitate response in a complementary fashion.

At the regional level, there is an existing gap in policies regarding health data sharing and data protection. As the region has a large number of cross-border pastoralist populations, the lack of data-sharing policies restricts effective public health planning and resource allocation. Additionally, in all the GHoA countries, data sharing is mainly done by the MoH. This can particularly be an issue if the government has restrictive data sharing policies. This contributes to limited cross-border collaboration for an effective and timely health response. To overcome these challenges health partners need to address some of the existing gaps and strive for a more coordinated response and action plan (Table 5).

**Table 5: Health information gaps and recommendations for GHoA region**

	Gap	Recommended tools / guidance for primary data collection
Health status and threats	Nutritional surveillance	Cross-border data sharing for drought affected region
	Cross-border disease surveillance	Strengthen regional surveillance capacity (e.g. establish EWARS for regional overview)
	NCDs	Facility-based morbidity and mortality data
	Disease mortality surveillance	Facility-based mortality surveillance; mortality surveillance study
	Mental health – incidence/prevalence/treatment data	Facility-based surveillance, services mapping, data collection on service delivery data
Health System Needs	Surveillance system evaluation	Regional evaluation of the disease surveillance system and capacity
	Damage to Health system due to crisis	Mapping and evaluating of regional health system capacity
Health response coordination	Inter-sectoral coordination	Joint inter-sectoral mapping and performance evaluation/assessment at the national and regional level
Availability / functionality of health resources	Utilisation of health resource and services	Facility-based assessment of health service utilisation and resource availability
Humanitarian health system performance		Establish HeRAMS across the GHoA region

## ● Health system needs

### Access to health care

Health system in the GHoA countries have been under pressure by the ongoing conflicts, flooding as well as with the drought and food insecurity situation. This has a negative impact on the delivery of both preventive and curative health services to the community.

The conflict in the northern Ethiopia, Sudan, South Sudan, and Somalia has caused substantial damage to health facilities in resulting in health facility closure or limited health service provision at health facility or community level. Moreover, the flooding in South Sudan had affected thirty-six counties with an estimated one million people affected as of 28 October 2022. Provision of life saving and basic health services including immunization, SRH and GBV have been impacted as drugs and supplies needed were not able to reach to the community due to the flooding. In the affected areas, high case of malaria, diarrhoea, pneumonia, and skin diseases as well as snake bites were reported<sup>42</sup>.

The ongoing food insecurity and drought situation has additional negative impact on health system in the drought affected areas. There is an increased burden on the health facilities providing service to the large number of displaced people<sup>66</sup>. Moreover, there are ongoing outbreaks of measles, cholera and other communicable diseases resulting in high morbidities and mortalities in the drought affected areas. Several health facilities are providing either limited health services or being closed. In Ethiopia and Somalia, an estimated 1.7 million people have been displaced in 2022 due to the drought and people are living in an environment where limited health services are available at community and health facility level<sup>85</sup>.

### Attack on healthcare and security

The food insecurity crisis in the GHoA region is heavily impacted by ongoing conflicts which contributes to limited aid access and aid security. A large number of people depend on external aid to fulfil their food requirements; however, the effects of conflict limit the possibilities for humanitarian action to fulfil this need and aggravate food insecurity. Furthermore, the presence of armed actors and violence on the ground put health workers at risk of death or injury.

The conflict in **Ethiopia** which started in November 2020, most affected the Tigray, Afar and Amhara regions. In 2022, a total of 10 events were reported<sup>93</sup>. According to the Safeguarding Health in Conflict Coalition (SHCC), a total of 55 reports/events of attack on healthcare in Ethiopia in 2021 where 42 health facilities were in which at least eight health workers were killed, and 13 were sexually assaulted attacked<sup>94</sup>. However, the situation is likely to improve in 2023 as a peace agreement was signed recently between the disputed groups.

**Sudan** is also heavily affected by the decade-long conflicts. According to the WHO's Surveillance System for Attacks on Health Care (SSA) data, a total of 22 incidents were reported in 2022 which resulted in seven deaths and four injuries to healthcare workers<sup>95</sup>. These events included psychological violence, violent searches, assaults, obstructions, removal of assets and personnel etc.

In **South Sudan**, nine events were reported in 2022 which resulted in 11 deaths and 33 injuries<sup>95</sup>. Although only one incident was reported from Somalia in 2022, the number of casualties were severe. A total 48 deaths and three injuries were reported from that events that occurred in March 2022<sup>95</sup>.

## Disease risk analysis

The overall risk of an outbreak of diseases in drought-affected areas is historically very high<sup>11 96</sup>. The current overall situation in drought affected areas in the GHoA region is deteriorating, characterised by malnutrition, drought-induced displacements, crowded and unsanitary living conditions in temporary shelters, as well as interruption of and lack of access to essential health services<sup>75</sup>. Although some improvements were observed with routine immunisation coverage at the sub national level, the targeted coverage of 95% is yet to be achieved at the national level. Overstretched health systems, shortages of human resources and communities scattered across very remote areas in search of life-saving resources – all these factors contributed to a challenging disease surveillance and outbreak response. Countries in the GHoA have been experiencing outbreaks of vaccine-preventable and other communicable diseases due to the interaction between low routine immunization coverage and the direct effects of climate events (drought and flooding), health, and food insecurity crisis<sup>66</sup>. In the affected areas, large numbers of persons are escaping

from water and food scarcity in search of new livelihoods, usually to other communities which themselves are experiencing high food insecurity with their healthcare systems already being stretched or completely overwhelmed<sup>3</sup>. Displaced communities face challenges of access to health services, poor sanitation and hygiene conditions, which may contribute to a higher prevalence of infectious diseases and outbreaks.

Several cholera outbreaks have occurred in the GHoA, with numerous hot spots identified in Somalia, Ethiopia, Kenya and South Sudan<sup>75</sup>. Pre-existing factors such as overcrowding at IDP sites, inadequate WASH facilities and open defecation may also create favourable conditions for major outbreaks of diarrheal diseases. In the last three years, the COVID-19 pandemic has been affecting communities globally. In the GHoA countries, the drought situation could aggravate the situation, especially for displaced communities due to congestion in the shelters and limited health services.

## ● Epidemic-prone diseases

Within drought, flooding and food insecure areas there is an ever-present risk of disease outbreaks, especially water-borne and vector-borne diseases. Outbreaks of infectious diseases including cholera and measles are much more likely to occur in the absence of preventive measures like improved water, sanitation and hygiene activities, in addition to immunization services<sup>11</sup>. Flooding and drought have rendered access to essential health services a major challenge. Moreover, in areas affected by protracted drought, health facilities may be closed or provide limited services due to a variety of factors. These include loss of livelihood among the target beneficiaries, increased inter-communal conflict and forced displacements, making it difficult for health facilities to stay open. Additionally, severe drought can lead to a shortage of clean water and food, increasing the risk of disease<sup>10</sup> in turn compromising health facilities. Furthermore, health seeking behaviour is often also substantially impacted due to food insecurity crises.

### Acute Watery Diarrhoea (including cholera)

The GHoA region has in the past experienced multiple cholera outbreaks and currently three countries are reporting cholera cases (Kenya, Ethiopia and Somalia)<sup>75</sup>. Elevating risk factors for the likelihood of cholera outbreaks in the region includes overcrowding, lack of safe water as well as poor hygienic and basic living conditions. The situation is often worsened by reduced access to medical treatment due to both increased distances to reach those who need it, as well as the lack of adequate resources, including medicine and materials.

Cases of cholera have prevailed in **Somalia** since October 2017 and since 2022, multiple cholera hotspots were still reported in different states<sup>97</sup>. As of 24 December 2022, a total of 13,430 suspected cholera cases were reported, including 893 confirmed cases and 73 deaths (CFR 0.5%)<sup>98</sup>. The number of reported cases is more than twice the figures recorded in 2021 (6,468 cases). A total of 888,092 people aged one year and above received the first and second doses of OCV respectively<sup>98</sup>. Moreover, an additional one million doses of OCV approved by the ICG in response to the ongoing cholera outbreak in the country. A total of 25 districts in three states (South-west, Hirshabelle and Jubaland) and the Banadir region are currently reporting cholera cases with an estimated attack rate of 319 cases per 100,000 people<sup>98</sup>. Although the overall CFR is 0.5% reported from 25 drought-affected districts, in six districts the rate exceeded the recommended threshold of  $\geq 1\%$  for emergency settings<sup>97</sup>. The health and WASH clusters in Somalia are working closely to prevent the spread of waterborne diseases, especially in the areas where cholera hotspots were identified. Rapid preventative measures were taken to reduce the transmission of the disease. Water quality surveillance is undertaken in places where the most cholera cases were reported. Additionally, WHO distributed hygiene kits in the affected areas. Water tracking exercises are also underway in collaboration with the WASH sector and additional latrines are being constructed. A cholera strategy the operational plan, which was developed in 2019, is undergoing a joint update with the health and WASH clusters<sup>100</sup>.

An outbreak of cholera has been confirmed in **Ethiopia** since 27 August 2022. The index case was reported in Bekay Kebele, Harana Buluk Woreda in Bale Zone, Oromia Region. As of 19 December 2022, a total of 691 suspected cholera cases have been reported, including 15 confirmed and 24 deaths (CFR 3.5%)<sup>99</sup>. The estimated cumulative attack rate is 80.1 per 100 000 people and a total of 55 kebeles (villages) have so far been affected in eight woredas<sup>99</sup>. WHO and other health partners are providing support to the MoH to strengthen disease surveillance, case management, WASH, and RCCE activities<sup>75</sup>. The overall risk has been assessed as very high at the national level, taking into account the CFR (2.1%) and the severity of the disease (almost 60% of cases presenting with severe dehydration, and children

with SAM accounted for 25% of cases). Other factors illustrating a high-risk factor are the absence of access to adequate safe drinking water and sanitation and overcrowding in a context of the ongoing rainy season, along with drought, conflict and massive internal displacement of people and their livestock. In addition, a weak surveillance system especially at the community level, a poor referral system, and difficulty in accessing certain areas are contributing to a higher risk. Ethiopia is also planning to conduct an OCV campaign in early 2023 for the ongoing cholera outbreak which started in August 2022. The need for WASH interventions is also high in IDP and refugee sites across the region according to the health cluster. As of 14 December 2022, conditions are deteriorating across the ten drought-affected woredas of the Oromia Region with severe water shortages reported<sup>26</sup>. Only 17 of the 213 water trucks required are currently providing water support. The Ethiopian Public Health Institute (EPHI), the Oromia and Somali Regional Health Bureaus (RHBs), WHO, UNICEF and other partners have continued supporting the scale-up of health and WASH activities in priority areas, with a particular focus on IDPs sites<sup>26</sup>.



In **Kenya**, a cholera outbreak has affected 12 counties with suspected cases reported from Nairobi, Kiambu, Nakuru, Uasin Gishu, Kajiado, Murang'a, Machakos, Garissa, Meru, Nyeri, Wajir and Tana River<sup>33</sup>. As of 29 December 2022, a total of 3,154 cases have been reported including 107 culture-confirmed cases and 55 deaths (CFR 1.7 %). Outbreak investigations and active case finding are still ongoing at the county and sub-county level in the affected areas. The MoH was planning to conduct a reactive campaign in selected sub-counties in Nairobi and Garissa County in 2023.

**South Sudan** has reported suspected cholera cases since 19 March 2022, and as of 20 November 2022, a total of 424 cases and one death (CFR 0.2%) have been reported from Unity State and Ruweng Administrative Area. However, most reported cases were from the Bentiu IDP camp (89% of the

cumulative total)<sup>48</sup>. More than 1.58 million doses of the cholera vaccine were administered in 2022 and more vaccination campaigns are planned for 2023. The overall risk is assessed as very high both at both state and national levels. The contributing factors are weak community- and facility-based surveillance, significant population movements due to flooding and violence and inadequate access to improved sanitation facilities<sup>39</sup>. Additionally, the influx of unvaccinated refugees and IDPs is also considered to be a risk factor for outbreaks. As of December 2002, the Health and WASH cluster partners continue to conduct active case searches in locations with confirmed or suspected cases.

WHO is playing a significant role across the GHoA in supporting authorities in the member states to assess, plan, coordinate and implement preparedness and response measures for cholera given the high likelihood for outbreaks in the areas affected by drought or flooding<sup>100</sup>. There is a need for continuing support by actors and governments to strengthen the intersectoral response to cholera and other water-borne disease outbreaks, with the aim of preventing and attending to any future outbreaks.

## Measles

Measles continues to be a major threat in the GHoA region. The low immunization coverage and the elevated malnutrition rates due to the food insecurity crisis increase the risk of outbreaks. Since July 2022, all seven GHoA countries have reported measles cases<sup>75</sup>. The highest number of cases were reported from Somalia, followed by Ethiopia, Sudan and South Sudan.

In **Somalia**, a total of 17,093 suspected cases were reported (as of 24 December 2022). The number is significantly higher than in the previous year (a total of 7,494 cases reported in 2021)<sup>98</sup>. Most (77%) of the cases were reported in the under-five group and the most affected areas are Bay, Banadipur, Bari, Mudug and Lower Juba. Targeted measles supplementary immunisation campaigns are ongoing in the affected areas. In addition, an integrated nationwide measles vaccination campaign was conducted in November 2022<sup>76</sup>. During this campaign, more than 2.6 million under five years children received the polio vaccine and more than 2.3 million children were vaccinated against measles. Another integrated campaign was also implemented in Somaliland by UNICEF.

In **Ethiopia**, a total of 13,294 suspected measles cases were reported (as of 18 December 2022), including 8,222 confirmed cases and 76 deaths (CFR 0.6%). Thirty-four woredas (from 6 regions) are currently experiencing active measles outbreaks<sup>27</sup>. Reactive vaccination campaigns were conducted in 55 affected and high-risk areas including Somali and Oromia regions. Additionally, a nationwide integrated measles vaccination campaign was initiated targeting 15 million children as part of the outbreak response intervention and strengthening the routine immunization service with the support of WHO<sup>101</sup>.

As of 25 December 2022, about 3,310 suspected cases of measles were reported in **Sudan**, including 1,262 confirmed cases emanating from the current outbreak in Kassala State<sup>55</sup>. With support from WHO, the MoH conducted two large nationwide measles vaccination campaigns with vitamin A supplementation in 2022, targeting the Red Sea State (98% coverage) and South Darfur State (98% coverage)<sup>102</sup>. In addition to strengthening disease surveillance and outbreak response, active case search and management activities are also ongoing simultaneously. To control the current outbreak in country and increase the immunity status of the community, WHO is working closely with MOH in finalising nationwide catchup campaign plan which is going to be conducted in three phases starting in April 2023<sup>102</sup>.

**South Sudan** is currently experiencing two measles outbreaks. The first outbreak was declared on 23 February 2022, and the second on 10 December 2022<sup>43</sup>. As of December 2022, 49 counties across all 10 states reported suspected cases and as of 18 December 2022, a total of 2,745 suspected cases including 299 lab-confirmed and 31 deaths (CFR 1.1%) were recorded<sup>48</sup>. An in-depth analysis of the reported cases revealed that the majority (72%) of those infected were previously unvaccinated. The routine administrative measles immunization coverage in 2021 was 69% at national level, while the WHO-UNICEF estimate of national immunization coverage estimate was 49%<sup>70</sup>. These estimates are significantly lower than the target of 95%. Although the MoH with support from WHO and other partners has conducted reactive vaccination campaigns in 13 of the 49 affected counties between March and November 2022, the risk of measles outbreaks at national level remains high.

In **Kenya**, a total of 392 cases of suspected measles cases were reported as of 29 December 2022. This includes 85 confirmed cases and two deaths (CFR 0.5%)<sup>31</sup>. The outbreak has affected six counties - Marsabit, Wajir, Garissa, Nairobi, Turkana and Mandera. The MoH has conducted measles supplementary campaigns in the most affected counties targeting children aged 9-59 months, with an administrative coverage of 88%<sup>31</sup>.

**Uganda** and **Djibouti** have been reporting outbreaks of measles since the beginning of 2022 with 107 and 546 reported cases respectively<sup>66</sup>. In Uganda, cases were reported in the Lamwo district where a supplementary measles campaign was conducted after the outbreak<sup>103</sup>. Djibouti also conducted two supplementary measles vaccination campaigns (March and September 2022) following the reported measles cases in Arta, Dikhil and Tadjourah, targeting children aged 6-59 months<sup>104</sup>. However, the risk of an outbreak remains high in the areas with lower immunization coverage.

## Meningitis

As far as bacterial meningitis is concerned, Africa remains the most affected continent, especially in the "Meningitis belt" that extends from Senegal to Ethiopia. The most common causative agents for bacterial meningitis in the region are *Neisseria meningitidis*, *Streptococcus pneumoniae* and *Haemophilus influenzae* type b<sup>105</sup>. The climate crisis in the GHoA is impacting on health and disease prevalence especially for a disease like meningitis as there is an association between high temperatures and meningitis outbreaks<sup>106</sup>. Studies have suggested that high temperatures, low and absolute humidity, excessive sunshine and dusty winds, poor sanitation, overcrowding and poor ventilation can exacerbate an outbreak<sup>106</sup>. Most of the countries in the GHoA are within the 'Meningitis Belt', with affected countries reporting the highest endemicity and epidemic frequency of meningococcal meningitis, especially during the dry season<sup>106</sup>. Dryness and dust levels in these areas increase the risk of infection. However, despite meningitis being a disease of public health significance throughout the GHoA, there are gaps in the surveillance capacity to monitor, detect and confirm cases, especially in peripheral facilities<sup>107</sup>.

In Ethiopia, a total of 7,036 cases of suspected meningitis were reported in 2022, including 85 deaths. The highest number of suspected cases were reported in the Oromia (n=2,945) region followed by the SNNPR (n=1,057), Amhara (n=912), and Somali (n=603) regions. The most reported deaths were in Oromia (n=84) followed by Amhara (n=50) and SNNPR (n=28)<sup>99</sup>.

## Vector-borne disease

Vector-borne diseases including malaria, dengue, yellow fever and chikungunya have traditionally been prevalent in the region. Much of the region is at risk of experiencing elevated levels of vector-borne disease outbreaks due to extreme climate events. Climate change and weather conditions including air and water temperature, rainfall, humidity, surface water and wind can influence the transmission of arthropod-borne diseases and can directly and indirectly impact vector transmission dynamics.<sup>108</sup>

An increased number of malaria cases are being reported in areas with above-average rainfall, including **Ethiopia**, Sudan, South Sudan, and Uganda<sup>109</sup>. Malaria is endemic in Ethiopia, with higher prevalence in areas below 2000m altitude<sup>110</sup>. Climate change is projected to cause encroachment of malaria from lower altitudes in the Somali and Afar regions to higher altitudes in the Tigray and the Amhara regions of Ethiopia, with an estimated 5–7% potential altitudinal increase in malaria distribution<sup>110</sup>. This may suggest that malaria-free highlands in Ethiopia may experience modest changes to malarial conditions because of prolonged drought. An outbreak of dengue fever was reported in Ethiopia's Somali region, with an increase in mosquito abundance linked to widespread household storage of water. Additionally, dengue suppression efforts have been greatly interrupted due to population displacements in the region. Given that short-term forecasts of climatic conditions are projecting increased dry conditions and decreased rainfall in some of the affected areas from July – December 2023, there is a likelihood of increased use of domestic water storage facilities, used as an adaptation strategy during drought conditions. This might expand the range of the main vector, *Aedes aegypti*, and create potential possibilities for dengue transmission.

As of November 2022, the total malaria cases reached 2,624,002 including 262 deaths (CFR; 0.01%) in **Sudan**. Reported malaria cases crossed the epidemic threshold in 11 states: Khartoum, Gezira, Blue Nile, Sinnar, Kassala, Gedarif, Northern state, West Kordofan, West Darfur, South Darfur and East Darfur<sup>102</sup>. In Sudan, a new outbreak of dengue fever was declared by the federal ministry of health (FMoH) in August 2022. As of December 2022, a total of 52,55 suspected dengue cases (attack rate of 3.9 per 10,000 population) and 843 confirmed cases with 36 deaths (CFR 0.7%) were reported from 72 localities in 11 States in Sudan. The majority of deaths (36%) were reported from North Kordofan followed by 22% from Red Sea<sup>111</sup>. The MoH with support from WHO is working to enhance integrated disease and entomological surveillance, as well as to improve access to diagnosis and treatment, together with public awareness and risk perception<sup>111</sup>.

In **Somalia**, as of 30 September 2022, a total of 263,624 suspected cases of malaria were reported including 8,882 confirmed cases<sup>98</sup>. The number of confirmed cases is significantly higher compared to the previous years (1,073 cases in 2021 and 1,247 cases in 2020)<sup>73</sup>. No deaths, as of 30 September 2022 were reported.

In **South Sudan**, between 1 January and 22 May 2022, a total of 1,117,138 suspected cases of malaria were reported including 232 deaths<sup>43</sup>. Recent flooding that affected 36 counties and Abyei administrative area across 9 states, has caused increased caseloads of malaria in the affected areas<sup>42</sup>. In Somalia, an outbreak of dengue fever was reported in October 2022 from Somaliland with a total of 5,350 suspected cases with 18 associated deaths. Hargeisa, Burao and Borama districts are the hotspots of the outbreak. The MoH in Somaliland declared a dengue outbreak in October 2022<sup>112</sup>.

An outbreak of yellow fever was officially reported in Isiolo and Garissa counties in **Kenya**. Between 12 January and 16 December 2022, a total of 141 suspected cases were reported from 11 counties in Kenya, including 11 deaths (CFR 7.8%)<sup>31</sup>. Among all the suspected cases, only three were confirmed using PCR testing.

In **Uganda**, in 2022, a total of 984 samples from sentinel surveillance sites were tested for yellow fever, with two confirmed cases<sup>58</sup>. The reported low number of confirmed cases suggested an urgent need to decentralize and scale up the surveillance and laboratory capacity in the GHoA region.

In **Kenya**, chikungunya cases were reported from Wajir county. As of 11 December 2022, a total of 291 cases were reported, including five confirmed cases and one death<sup>33</sup>.

## COVID-19

COVID-19 was declared as a public health emergency of international concern on 30 January 2020 and a global pandemic on 11 March 2020. As of 21 December 2022, a total of 9,456,372 cases and 175,152 deaths were reported in the African region<sup>113</sup>. In the GHOA countries; 1,136,360 COVID-19 cases and 23,573 deaths (CFR: 2.1%) were reported<sup>112</sup><sup>113</sup>. In response to the pandemic, the GHOA countries have been implementing mass vaccination campaigns across all age categories. By the end of 2022, a total of 77,841,661 people were fully vaccinated and 96,996,200 people have received at least 1<sup>st</sup> dose<sup>114</sup>. There has been a gradual reduction in reported cases.

## Mpox

Monkeypox (mpox) is an infectious disease caused by the monkeypox virus. The first case was detected in May 2022 and on 23 July 2022 WHO declared the global monkeypox outbreak as a public health emergency of international concern<sup>115</sup>. In the GHOA, the first confirmed case of mpox was discovered in Sudan on 31 July 2022, and as of 13 December 2022, Sudan has reported 186 suspected mpox cases, of which 18 were laboratory confirmed<sup>116</sup>. Cases were reported from five states and 19 localities, including points of entry. Among the reported cases, the under-five age group has the highest (43%) proportion of infection, and one infant death was reported from West Darfur state. Available data shows that the peak of the outbreak in Sudan was in September 2022 while from October 2022 onwards, the number of cases reported decreased significantly<sup>116</sup>.

## Sudan virus disease

SUDV is an Ebola viral disease caused by one of the six species in the genus ebolavirus and is often fatal for humans. There have been seven previous outbreaks of the Sudan ebolavirus, with four occurring in Uganda and three in Sudan. On 20 September 2022, the Uganda health authorities declared an outbreak of Ebola, caused by the Sudan virus. This followed laboratory confirmation involving a patient at Mubende Regional Referral Hospital. The patient had come from a village in Madudu sub-county, Mubende district, central Uganda<sup>117</sup>. The outbreak affected nine districts and there were 142 cases confirmed, with 55 deaths and 87 recoveries. A CFR of 39% was recorded for this SUDV outbreak. On 11<sup>th</sup> January 2023, after 42 days with no new cases reported, the end of the outbreak was declared<sup>118</sup>.

## ● Maternal, Newborn, and Child Health, Malnutrition

Malnutrition is caused by a lack of essential nutrients in a person's diet. This can be due to factors such as the absence of access to nutritious food, poor food choices, as well as underlying health conditions such as chronic diseases or infections, that impede the body's ability to absorb nutrients.

Malnutrition can lead to serious health problems and is a major contributor to child mortality<sup>119</sup>. It weakens the immune system, making individuals more susceptible to diseases and infections<sup>12</sup><sup>119</sup>. It can also interrupt physical and cognitive development, particularly in children, with lifelong effects as a consequence. Addressing malnutrition is essential to achieving good public health and development outcomes.

In **South Sudan**, there are several drivers of acute malnutrition and there is a high correlation between malnutrition and disease<sup>39</sup>. Increased morbidities, including from communicable diseases like measles and other respiratory infections, have been reported. According to a recent health assessment, 62.5% of children were found to be ill with one disease or other during the assessment<sup>39</sup>. The symptoms recorded during the assessment included diarrhoea, fever, and coughing. Inadequate feeding practices of infant and young children is another major contributing factor. According to recent data, all Infant and Young child feeding (IYCF) indicators remain suboptimal, suggesting that at national level, the minimum acceptable diet was 4.6%, minimum dietary diversity 18.1%, and the minimum meal frequency 25.2%<sup>120</sup>.





However, only 4.6% of children 6-23 months old are receiving the food quality they need at the required frequency<sup>120</sup>. Dispute this, the health pool fund was cut by 24%, reducing critical health support in at least 220 facilities across the country. These deprivations, coupled with conflict and insecurity, are hampering the delivery of life-saving programs. An estimated 1.4 million children under-five are acutely malnourished, and 345,893 children are estimated to be severely malnourished<sup>41</sup>. Between January to October 2022, a total of 235,967 children with SAM received nutritional management<sup>120</sup>. with the highest proportion of SAM admission reported from Jonglei States (22.8%) followed by Unity (16.2%). The current admission rate increased by about 20.4% compared to the data over the same period of 2021. In September 2022, a total of 45,036 MAM children were newly admitted, bringing total admissions in 2022 to 465,012<sup>120</sup>.

In **Ethiopia**, malnutrition admission data have shown a rise in cases compared to the previous three years<sup>121</sup>. Sub-national data from January to September 2022 found that admissions for SAM in the Oromia region rose by 17%, in the Somali region by 28%, and in the SNNPR region by 46%, as compared to the same period in 2021. Due to the political instability and conflict in northern Ethiopia, humanitarian assistance (including nutrition supplies) was unable to reach the conflict-affected areas of Tigray since 26 September 2022. However, while the recently signed Cessation of Hostilities Agreement has resulted in improved humanitarian access, overall the malnutrition situation mostly remains unchanged. In March and October 2022, UNICEF conducted a campaign entitled "Find-and-Treat" in 36 woredas in six zones<sup>121</sup>. The results of the campaign from October 2022 found that among the 36 woredas, general acute malnutrition (GAM) prevalence was considered very high in 25 woredas.

In **Somalia's** IDP camps in Baidoa, Burhakaba, and Mogadishu, the number of SAM admissions has been increasing at an alarming rate<sup>13</sup>. The highest level of food insecurity (IPC 5) is projected in the Baidoa and Burhakaba districts of Bay region and among IDPs in Baidoa, a town in the Bay region, and in Mogadishu<sup>36</sup>. IPC analyses identified nine areas in central and southern Somalia that are also at increased risk of famine between April and June 2023 if the 2023 rainy season turns out to be poorer than predicted<sup>122</sup>. As of December 2022, nearly 460,000 SAM admissions and 1.1 million MAM admissions were recorded. The numbers are significantly higher than the previous years<sup>123</sup>. A total of 263,532 and 260,381 SAM admissions, and 513,684 and 598,782 MAM admissions were recorded in 2020 and 2021 respectively. Additionally, nearly 32,953 malnourished pregnant and lactating women were newly admitted with MAM, bringing total admissions in 2022 to 252,831. With coordinated response support from UNICEF, WFP and WHO and other health partners, the nutrition response was scaled up in 16 hard-to-reach districts as of November 2022<sup>121</sup>. A recent IPC projection (August 2022 to July 2023) suggested that an estimated 1.8 million children under-five are at risk of suffering from GAM. This includes 1.3 million children with MAM and 514,000 with SAM<sup>36</sup>.

When rated against the total need, the nutritional coverage in **Kenya** is below 50% in most areas<sup>124</sup>. There is an urgent need to scale up programmatic support in the most affected areas. The data on the admission of children 6-59 months old (ASAL only) suggests that both the SAM and MAM admission rates are increasing and are significantly higher than in previous years<sup>124</sup>. As of October 2022, a total of 178,902 MAM admissions and 88,232 SAM admissions were recorded in children 6-59 months old in the ASAL areas affected by the drought. Among all the children (6-59 months old) screened during a campaign in ASAL counties, 16.6% were identified with MAM and 5.2% were identified with SAM<sup>124</sup>. Reduced food intake and low milk consumption are expected to be the main contributory factors for acute malnutrition. Additionally, high morbidity, including elevated diarrhoeal illness from drinking inadequate and unsafe water and compromised hygiene and sanitation conditions due to the extended dry conditions, may also aggravate acute malnutrition. Based on KDHS 2022 KIR report, infant and under-5 mortality rate at the national level is 32 and 41 per 1000 live births respectively (data as of September 2022).

In **Uganda**, although, the number of SAM admissions in the Karamoja region and the refugee hosting district was higher than in the previous year, a decline in the number of SAM admissions was noted in October, November and December 2022<sup>103</sup>. The decline in SAM admissions could be due to the recent harvesting season.

In **Sudan**, the GAM and SAM prevalence among all children aged 5-59 months were 13.6% and 2.7% (as of September 2022). MoH and WHO are working to improve the performance indicator of the nutrition program at the national level. As of September 2022, the stabilisation centres (SC) reported a recovery rate of 92% among all the admitted patients in the SCs. The defaulter and the death rate at the SC were 4% for each indicator<sup>102</sup>.

Due to the ongoing drought and conflict in the various GHoA countries, a significant number of people have been displaced. This has negatively impacted the health and nutrition status of many, especially children under the age of five as well as pregnant and lactating women. Projections on the worsening of the food insecurity situation indicate that malnutrition will be one of the major concerns in 2023, especially for those displaced and part of a vulnerable

population. Research indicates that women and girls are up to 14 times more likely to be harmed during a disaster<sup>125</sup>. The drought crisis is having devastating consequences for women and children, heightening the risk of GBV, sexual exploitation and abuse and hampering children's access to education<sup>126</sup>. In some communities, child marriage has reportedly risen, with families marrying-off young girls in order to lessen demands on their own resources and potentially get money that they can use for food and other necessities.

According to data from 2021, the percentage of women (aged 15-49 years) who attended at least four antenatal care visits is still low in the GHoA (Table 5). Djibouti (23%), Ethiopia (43%), Somalia 24%) and South Sudan (17%) have the lowest proportion of antenatal care visits (at least 4+ visits), with the lowest reported from South Sudan (Table 5)<sup>127</sup>. Additionally, the percentage of deliveries attended by skilled health personnel was also low in some countries in the GHoA region. South Sudan (19%), Somalia (30%) and Ethiopia (50%) have the lowest proportion among all.

**Table 6: Key perinatal care indicators in the GHoA countries; country newborn care data 2022<sup>127 128</sup>.**

Country	Postnatal care for mothers (%)	Antenatal care 4+ visits (%)	Maternal mortality ratio (Per 100,000 live births)	Skilled birth attendant (%)
Djibouti	NA	23	248	87
Ethiopia	34	43	401	50
Kenya	53	59	342	70
Somalia	11	24	829	32
South Sudan	NA	17	1,150	19
Sudan	27	51	295	78
Uganda	54	57	375	74

The maternal mortality ratio is very high in the GHoA, with more than 1000 deaths per 100,000 live births in 2021 in South Sudan whereas the rate exceeds 800 deaths per 100,000 live births in Somalia<sup>127</sup>. Limited accessibility to healthcare for antenatal visits, skilled birth attendants and postnatal care, increase the chances of maternal deaths<sup>129</sup>. In Somalia, the infant mortality and under-5 mortality rates were 40 and 57 per 1000 live births respectively<sup>130</sup>.

In Ethiopia a total of 1,432 maternal deaths reported in 2022, with the highest number of deaths reported from the Oromia (n=477) region followed by the Somali (n=344), Amhara (n=265) and SNNPR (n=100) regions. These are the regions also most affected by the drought<sup>27</sup>. Djibouti, Sudan, Uganda and Kenya had lower maternal mortality ratios and higher proportions of skilled birth attendants in 2021 among the GHoA countries. Based on the available data, As of September 2022, the proportion of skilled birth attendants in Uganda is 70.6%, Kenya is 62.5% and Somalia is 47.2%. These numbers are still quite low.

### ● Chronic diseases and conditions

Across all categories, access to health services and the availability of medicines has come under pressure in the GHoA. For those suffering from chronic conditions requiring ongoing medication, the current crisis is likely to be an additional burden<sup>139</sup>. Chronic diseases like diabetes and HIV require frequent drug supplies and counselling. Due to a high disease burden that is fuelled by food insecurity and displacement, people with chronic diseases face very tangible challenges in receiving the necessary routine care.

## HIV

According to UNAIDS 2021 data, the prevalence of the human immunodeficiency virus (HIV) in the GHoA is below 1%<sup>131</sup>. However, the percentage of people living with HIV who are under antiretroviral treatment is still below acceptable standards. The lowest percentages are observed in South Sudan (27%), Sudan (27%) and Djibouti (31%)<sup>131</sup>.

**Table 7: Key HIV indicators in the GHoA countries<sup>131</sup>.**

Country	Persons living with HIV	HIV prevalence 15 to 49 years (%)	ART coverage (%)
Djibouti	6000 [4300 - 8200]	0.7 [0.5 - 1.1]	31 [22 - 42]
Ethiopia	610,000 [580,000 - 640,000]	0.8 [0.7 - 0.8]	78 [75 - 82]
Kenya	1,400,000 [1,300,000 - 1,600,000]	4.0 [3.7 - 4.4]	78 [71 - 90]
Somalia	7700 [6900 - 8800]	<0.1 [<0.1 - <0.1]	50 [44 - 57]
South Sudan	170,000 [170,000 - 190,000]	2.1 [2.1 - 2.1]	27 [26 - 30]
Sudan	41,000 [35,000 - 51,000]	0.1 [0.1 - 0.2]	27 [22 - 33]
Uganda	1,400,000 [1,300,000 - 1,600,000]	5.2 [5.1 - 5.4]	82 [78 - 90]

In **Ethiopia**, around 610,000 people are living with HIV and the prevalence rate varies from one region to another due to different population sizes (Table 6). Among all those living with HIV (PLHIV), 74% live in the Amhara, Oromia and Addis Ababa regions<sup>132</sup>. Even then, HIV is concentrated in nine regions and two administrative towns. The national prevalence rate of HIV/AIDS in Ethiopia is 0.8% among the 15-49 years age group<sup>132</sup>. Before the conflict in the Tigray region, there were approximately 46,000 clients enrolled and receiving Anti-Retroviral Therapy (ART). Now, all medication is depleted and there is limited diagnostic testing in the region. This leaves patients exposed to the risk of opportunistic infections including tuberculosis and cryptococcal meningitis infections<sup>133</sup>.

The HIV prevalence rate among adults (aged 15 to 49 years in **South Sudan** is 2.1%. Only about 27% of people living with the virus in the country know their status and are on treatment. The ongoing instability due to violence and food insecurity has weakened the health system and health service delivery. Thus, people often struggle to access the health services they need<sup>131</sup>.

In **Somalia**, the rate of infection has been dropping over the last 14 years, according to several surveys conducted in the country<sup>134</sup>. According to survey findings from 2014, the HIV prevalence in Somalia had reduced to such a level that it could be classified as a low-level epidemic in all the states. The most recent survey, conducted in 2018, showed that average antenatal HIV prevalence across the country stood at 0.1% for all states. According to UNAIDS, HIV prevalence within the 15–49-year age group is <0.1%<sup>131</sup>.

The prevalence of HIV in **Kenya** among 15–49-year-olds is estimated to be 4.0%, the second highest in the region (Table 6). HIV prevalence in different counties varies from 21.0% to 0.4%. Geospatial analyses and mapping looking at the burden of HIV demonstrated that clusters with a high number of HIV-infected persons are present in both high and low-burden counties<sup>131</sup>.

**Uganda** has the highest prevalence of HIV in the GHoA region. A total of 1.4 million people is living with HIV and based on previous estimates (2013), 11% of the total PLHIV are children below the age of 15<sup>135</sup>. Uganda still faces challenges in attaining validation for the elimination of mother-to-child transmission (eMTCT) of HIV. The country's MTCT case rate is 466 per 100,000 against the validation target of 50 per 100,000<sup>131</sup>. Given that HIV remains a public

health issue in the GHOA region, access to essential HIV services, including testing treatment and care need to be ensured across the region.

## Tuberculosis

Tuberculosis (TB) is a communicable disease that is a major cause of morbidity and one of the leading causes of death worldwide. Until the COVID-19 pandemic, TB was the leading cause of death from a single infectious agent, ranking above HIV/AIDS. The COVID-19 pandemic continues to have a damaging impact on access to TB diagnosis and treatment. The burden of TB and the progress made in the years up to 2019 has slowed, stalled, or reversed. Global TB targets are off track, according to the WHO global TB report for 2022. In the WHO African Region, the impact of COVID-19 related disruptions on the reported number of people newly diagnosed with TB was limited and there was a relatively small decrease (–2.3%) from 2019–2020 and an increase in 2021<sup>136</sup>. In Ethiopia, according to the 2021 WHO TB report, the TB incidence and death rate was 119 and 17 per 100,000 population which indicated a reduction by 38% and 34% respectively in 2021 compared with 2015 figures. Kenya also showed a significant reduction in incidence and death rate by 34% and 44% in comparison to the last six years. In general, all the GHOA countries except Somalia had a more than 30% reduction in the TB death rate compared to 2015. Somalia reported an increase of 6.4% in the TB death rate and a 8.7% reduction in the TB incidence rate over the same reporting period. Moreover, all countries have reported more TB treatment success rates of over 80%<sup>137</sup>.

## Other Chronic conditions

The crisis in the GHOA countries can exacerbate chronic health conditions like diabetes and hypertension, especially among displaced communities. Access to healthcare facilities and essential drugs can be limited and unaffordable for vulnerable groups, making it difficult for people to access the necessary care and treatment<sup>139</sup>. Crowded living conditions, poor sanitation and risky health behaviours such as unsafe sexual practices and drug use can also increase the risk of sexually transmitted infections, hepatitis C and HIV. If not adequately treated, these chronic health conditions especially diabetes and hypertension - can cause severe health problems such as blindness, amputations, kidney failure and eventually death.

Diabetes is one of the most important non-communicable diseases (NCDs) that needs to be addressed given that the ongoing crisis may worsen. According to 2021 data, among all countries in the GHOA region, Sudan has the highest (18.9%) prevalence of diabetes in the population 20-79 age groups, followed by Djibouti (7.4%), Somalia (6.5%) and South Sudan (6.5%) (Table 7)<sup>138</sup>. Studies conducted in a similar context found a high proportion of NCDs like hypertension and diabetes in the IDP population<sup>139</sup>. This implies that the prevalence will be even higher in the crisis-affected population. Strengthening the health delivery and related services is the key to improving the current situation.

**Table 8: Diabetes prevalence among countries in the Greater Horn of Africa (GHOA) region 2021<sup>138</sup>.**

Country	Diabetes prevalence (% of population ages 20 to 79)
Djibouti	7.4
Ethiopia	5
Kenya	4
Sudan	18.9
Somalia	6.5
South Sudan	6.5
Uganda	4.6

## Trauma

In a drought or flooding crisis, it is common for communal conflicts to manifest themselves, especially over resources like dwindling grazing areas and water spots. This can potentially lead to an increase in casualty events and injuries, which in turns requires appropriate health care services to treat trauma.

In February 2022, 4,140 trauma-related injuries were reported from health facilities in all of Somalia's states. The majority (71%) were non-weapon related injuries, which included burns and road accidents. Such injuries represented a 13% decrease (634) compared to the 4,774 injuries reported during the same period in February 2021.

The reported cases of injuries were managed in different hospitals in all states. Various other countries have long standing conflict with reported casualties on a regular basis, but data is often lacking.

## Mental Health and Psychosocial Support Services (MHPSS)

The mental health impact of climate change has received increasing attention since extreme weather events affects large numbers of people<sup>140</sup>. Studies reported that people living in flooded areas suffered from poor mental<sup>141</sup>. Common outcomes of intense or persistent climate stressors include anxiety disorders, post-traumatic stress disorder, suicidal ideation and depression<sup>142</sup>. Studies also suggested evidence that there is a correlation between extreme heat with violent behaviour, increased rates of suicide and hospital admissions for self-harm<sup>142</sup>. For those with pre-existing mental health conditions, the risk is even greater. Mental health impacts associated with drought are most severe for farmers and their families reeling from loss of income. Affected individuals are at risk for anxiety, depression and the consequent potential increases in domestic violence, abuse, and suicide<sup>143</sup>. Such evidence stresses the need for provision of mental health support and service in the GHoA region, especially in the areas worst affected by the climate crisis. Displacement of the population can be very traumatic especially due to associated factors like loss of loved ones and properties. The experiences during and after emergencies can lead to mental health challenges requiring psychosocial attention<sup>143</sup>.

In Uganda, according to the WHO Health and Nutrition Quality of Services Assessment, only 24.7% of the health facilities have at least one trained staff to manage mental health conditions. In Somalia, only 16.3% of health facilities have at least one trained staff for managing mental health conditions. Based on the most recent joint health facility assessment in Kenya, only 5% of facilities (nationally) offer mental rehabilitation and treatment<sup>144</sup>. The lack or absence of mental health support services pose a greater risk among the pastoralist population.

## Humanitarian health response

There are four active health clusters (Ethiopia, Sudan, South Sudan, and Somalia) and more than 45 sub-national hubs where WHO is taking the lead in the coordination and provision of technical support to all the health partners operational in the countries (Table 8). The clusters are producing a range of documentation including situation reports and bulletins on a regular basis for improved understanding of the situation and to support in guiding the response<sup>145</sup>.

**Table 9: Number of health cluster partners in GHoA countries, 2022<sup>145</sup>**

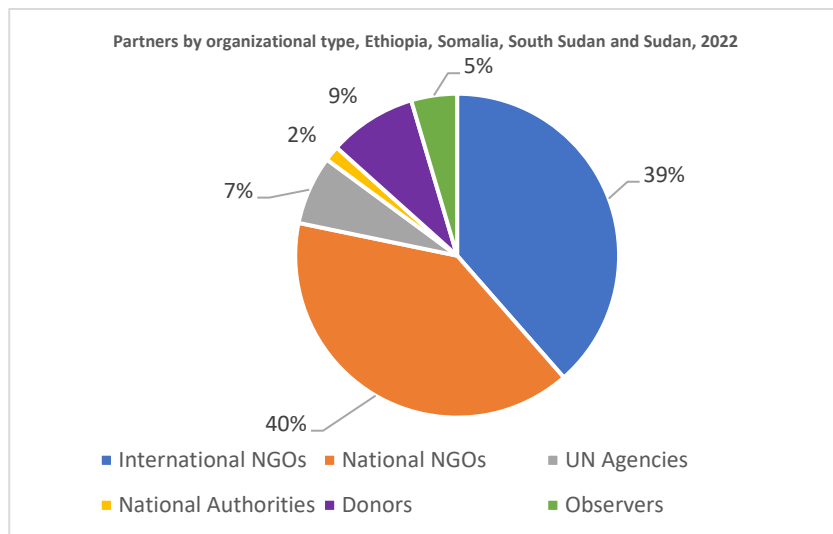
Country	Number of sub national hubs	Number of partners	Number of partners reporting
Ethiopia	15	51	32
Somalia	14	52	45
South Sudan	10	113	40
Sudan	8	46	

In **Ethiopia**, there are 15 sub- national hubs supporting the health cluster coordination activities in different parts of the country with a total of 51 partners registered and 32 of them are reporting<sup>146</sup>. The inter-cluster coordination (ICC) between five clusters has been intensified where an integrated approach was developed in September 2022. The five clusters mobilized 14 million US dollar to pilot Inter-sectoral coordination (ISC) in Oromia and Somali regions. The health cluster had made a request of 209 million US dollar but only 16% of it has been funded<sup>146</sup>.

In **Somalia**, 14 sub-national hubs have been established and a total of 52 health partners are registered to the coordination system. Out of the 52 partners, 45 of them are reporting as of December 2022. Moreover, a joint strategy was developed with the aim of providing convergent lifesaving interventions and, first-line integrated response framework that targets new IDPs and underserved people in hard- to- reach rural and urban areas was also endorsed. In 2022, a total of 163 million US dollar has been requested and 39% of the request was funded<sup>147</sup>.

**South Sudan** has established 10 sub-national hubs with 113 partners registered. Sixty-two of them are HRP partners and out of this only 40 of them are reporting. In 2022, a total of 28.4 million out of 128.6 million (20%) was funded and these has greatly affected those partners which are donor dependent to provide the health services and in improving the health infrastructure system. The health cluster received 1.5 million USD for joint health and nutrition activities <sup>146</sup>.

In **Sudan**, eight sub national hubs have been established with 46 partners in which majority of them are international NGOs. A total of 141 million US dollar had been requested by the health cluster to support the health services through health partners but only 39% of it was funded in 2022. As part of the inter-cluster coordination, education, food security, health, nutrition, protection and WASH partners are implementing an integrated interventions with support from Sudan Humanitarian Fund<sup>146</sup>.



**Figure 9: Health cluster partners in GHoA countries by organization type, 2022**<sup>145</sup>

In the four countries of the GHoA with an active health cluster system, a total of 262 partners are present in which 40% of them are national NGOs, 39% International NGOs, 9% donors and 7% of them are UN agencies. But some of these partners especially the national NGOs are not reporting due to funding related issues.

Additionally, there is an existing coordination mechanism in the three countries which don't have an active health cluster system. WHO plays an active role in providing all the necessary support in the coordination, joint planning and provision of all the necessary tools to have a coordination function in the countries.



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