Increased rainfall since the beginning of April has resulted in a sharp rise in the Shabelle and Juba rivers, leading to severe flooding in southern and central Somalia. Almost 700,000 people have been affected by flooding in riverine and flood-prone areas, including over 214,200 people who have been displaced (OCHA, 02/05/2018; OCHA, 02/05/2018; ECHO, 26/04/2018; Africa News, 02/05/2018). Beledweyne district (Hiraan region) has been particularly affected, with 150,000 people displaced in Beledweyne town. Middle and Lower Shabelle, Bay, Jubaland, Galgaduud, and Banaadir regions have also been affected (OCHA, 02/05/2018; OCHA, 26/04/2018). In Bay, Banaadir, and Galgaduud regions flash flooding has affected IDP settlements, worsening the already vulnerable conditions of IDPs (OCHA, 22/04/2018; OCHA, 26/04/2018; FEWS NET 23/04/2018; Radio Ergo, 10/04/2018).

Urgent needs include WASH, health, shelter, and food. There are concerns that the severe flooding will trigger a cholera outbreak (OCHA, 02/05/2018; OCHA 22/04/2018).

Limitations
It is not possible to make an accurate assessment of the number of people displaced due to insufficient data. As rains continue the number of people affected may rapidly increase, making reported figures no longer reflective of the current situation.

Anticipated scope and scale
Forecast (until 8 May) includes heavy rains (50-250mm) with high risk of flooding in Shabelle and Juba basins, mainly in Hiraan region and in lower reaches of Shabelle River (SWALIM, 02/05/2018; SWALIM, 30/04/2018; OCHA, 26/04/2018). Flash floods will likely cause further displacement along the Shabelle riverbanks and in other flood-prone areas (OCHA 22/04/2018). AWD/Cholera and other waterborne diseases are likely to spread and there is risk of a new cholera outbreak.

Key priorities
- +214,000 displaced by floods
- WASH needs are high due to water contamination
- AWD/Cholera is active in the affected regions

Humanitarian Constraints
Beledweyne airport in Hiraan region has been closed due to flooding (OCHA, 22/04/2018). It is likely that humanitarian workers face access challenges due to infrastructural damage as well as ongoing insecurity (UNFPA 02/2018; OCHA 24/04/2018).
Crisis impact

Rainy season usually lasts from April to June in Somalia but began in 2018 in late February. Large areas of Somalia in the southern and central regions have been affected by average to above-average rainfall (OCHA 24/04/2018; FEWS NET, 23/04/2018). As of early May, heavy rainfall continues, causing flash flooding in many locations in southern and central regions (FEWS NET, 30/04/2018; Suna Times 24/04/2018). Reports indicate that this is some of the worst flooding in decades in the region (SWALIM, 30/04/2018).

<table>
<thead>
<tr>
<th>Region</th>
<th>District</th>
<th>Affected</th>
<th>Displaced (included within affected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiraan</td>
<td>Jalalaqsi, Belet Weyne, Jowhar, and Balcad</td>
<td>180,000</td>
<td></td>
</tr>
<tr>
<td>Bay</td>
<td>Baidoa and Afgoye</td>
<td>174,000</td>
<td>6,100</td>
</tr>
<tr>
<td>Middle Juba</td>
<td>Bu'aale, Jilib and Sakow</td>
<td>206,000</td>
<td>94,620</td>
</tr>
<tr>
<td>Lower Juba</td>
<td>Jamaame, Afmadow</td>
<td>54,000</td>
<td></td>
</tr>
<tr>
<td>Gedo</td>
<td>Doolow, Baadheere, El Wak, Garbahaarey, Luuq, Ceel Waaq, and Belet Xaawo</td>
<td>59,000</td>
<td>7,000</td>
</tr>
<tr>
<td>Banaadir</td>
<td></td>
<td>13,482</td>
<td>5,832</td>
</tr>
</tbody>
</table>

Source: OCHA, 02/05/2018; OCHA, 02/05/2018

The full impact of the flooding is still to be determined (OCHA, 26/04/2018). The affected regions are already hosting over one million displaced people and the recent floods are exacerbating the poor living conditions for IDPs and leading to new displacement. Flash flooding has been reported in IDP settlements in Baidoa district, Banaadir, and Galgaduud regions (OCHA, 26/04/2018). The regions are already affected by food insecurity and conflict. Damage to property, crops, livestock and food-stocks as well as to WASH and road infrastructure is particularly concerning (FEWS NET 23/04/2018; ECHO, 26/04/2018).

At least three adults in Jubaland, and two children in Galgaduud have died due to flooding (Caj News Africa, 25/04/2018; Middle East Monitor, 24/04/2018; The East African, 30/04/2018). Urgent needs include WASH, health, shelter, and food (OCHA, 26/04/2018; OCHA, 22/04/2018).

**WASH**: Access to safe water and sanitation facilities is limited. In the IDP settlements affected by floods in the southern and central regions, around 70% of latrines have been damaged. Most latrines in settlements of Banaadir region were completely destroyed. Latrines at IDP settlements in Galgaduud region were destroyed. Over 1,000 latrines have been destroyed in Afmadow area in Lower Juba region. More than 200 latrines were damaged in 26 IDP sites in Baidoa district (OCHA 22/04/2018). A lack of sanitation facilities has resulted in open defecation. Poor hygiene and standing water may lead to waterborne diseases. Sources of contaminated water leading to AWD/Cholera have been reported in Banaadir and Lower Juba region (Ministry of Health and WHO, 24/04/2018). It is likely that new contaminated water sources will be reported in other flood affected areas. Lack of access to safe water was a major problem before flooding, with many IDPs currently relying on a water voucher and water supply via trucking deliveries (UNICEF, 02/2018).

**Health**: Flooding is increasing the risk of AWD/Cholera transmission, mainly in IDP settlements where people have limited access to hygiene facilities (OCHA 22/04/2018). From 10 December 2017 to 15 April, the regions most affected by AWD/Cholera in central and southern regions are Lower Juba (650 cumulative cases, CFR 0.8%), Banaadir (638 cases, CFR 0.3%), Hiraan (565 cases, CFR 0.2%) and Middle Shabelle (415 cases, CFR 0.2%) Active transmission is reported mainly in Lower Shabelle, Banaadir, Gedo, Lower Juba and Middle Juba regions (Ministry of Health and WHO, 24/04/2018).

Use of contaminated water from unprotected water sources is associated with the current cholera outbreak in Lower Juba and Banaadir (OCHA, 26/04/2018). In these regions, there has been an increase in the number of AWD/Cholera cases reported between 1 and 15 April, likely as a result of heavy rains (Ministry of Health and WHO, 24/04/2018). There is high risk of a new cholera outbreak, as well as other water and vector borne illnesses,
including malaria, following the heavy rains and floods (NRC, 27/04/2018; Horno Observer, 24/04/2018).

**Shelter:** The high level of displacement implies that shelter needs are high. IDP settlements in riverine areas along the Shabelle and Juba rivers have been flooded. Shelter structures in settlements are largely not resistant to heavy rainfall. In Abduwaq town (Galgadud region), IDP shelters were destroyed in settlements in low-lying land. Affected people in Abduwaq town have requested support with relocating (OCHA 22/04/2018). In Beledweyne town an unknown number of houses have been flooded and around 150,000 people have been displaced in the town (OCHA, 02/04/2018).

**Food:** Urgent food needs have been reported. In Gedo, Lower Juba and Middle Juba regions, at least 2,000 farmers lost crops that were almost ready for harvesting. Farm infrastructure including around 200 irrigation pumps were also damaged (OCHA; 26/04/2018). In Banaadir region, crops have also been damaged or destroyed (Radio Ergo, 26/04/2018; The Star, 28/04/2018). In Beledweyne town, floods have destroyed crops. Food supplies were also lost in local shops (FEWS NET, 01/05/2018). Substantial economic losses in the agricultural sector negatively impact livelihoods (ACTALLIANCE 27/04/2018; OCHA, 26/04/2018; NRC, 27/04/2018). Loss of food stocks and livestock will likely further exacerbate food insecurity (OCHA 22/04/2018).

**Education:** Emergency needs for education have been reported in Hiraan and Middle Shabelle regions (OCHA, 26/04/2018). No specific information about education needs is available, but it is likely that flood-affected children have reduced access to education given the extent of the area that is underwater.

**Vulnerable groups affected**

IDPs in Somalia, particularly those settling on private land, are at constant risk of forced eviction. From January to March, more than 133,000 people were evicted across the country (OCHA 24/04/2018). 26,500 of 35,000 people evicted during March in Somalia were from IDP sites in Mogadishu and 8,000 IDPs from Baidoa district (UNHCR, 01/04/2018). In 2017, around 154,000 IDPs were forcefully evicted in the capital Mogadishu (Banaadir region) (OCHA, 30/03/2018).

Evictions disrupt IDPs’ livelihoods and coping abilities, leading to high vulnerability during flash floods (OCHA, 30/03/2018).

**Humanitarian and operational constraints**

**Physical constraints:** Beledweyne airport in Hiraan region is closed due to flooding, which will affect the delivery of humanitarian supplies (OCHA 22/04/2018; CAJ News Africa, 25/04/2018). The main road that connects Beledweyne town to the airport is also affected by flooding and will likely further limit access (OCHA; 26/04/2018). Across Beledweyne district challenges to aid delivery have been reported (The Star, 28/04/2018). Road movement is limited in Hiraan region (OCHA, 02/05/2018). Main roads to Banaadir region are damaged. In Middle Shabelle, limited road use due to flooding is preventing access to some of the affected areas (The Star, 28/04/2018). The road connecting Mogadishu (Banaadir) and Jowhar (Middle Shabelle) is damaged (OCHA; 26/04/2018; OCHA 22/04/2018). Poor road quality also complicates humanitarian access.

**Security constraints:** Prior to flooding, insecurity already impacted the delivery of aid across Somalia. On 2 May, a humanitarian worker (ICRC staff) has been abducted in the capital Mogadishu (Banadir region) and an aid worker (WHO staff) was shot dead in Mogadishu on 1 May (ICRC, 02/05/2018; Voa News, 01/04/2018). No one claimed responsibility for the death. Another aid worker also was killed by an explosion on 28 March in Mogadishu. Al Shabaab claimed responsibility for that attack (Voa News, 01/04/2018; News Trust, 01/04/2018). Restrict access for humanitarian actors. Interclan fighting is also common in Somalia, resulting in significant casualties and displacement (BBC, 01/04/2018; CTC, 03/2018; Radio Shabelle, 15/01/2018). Even in areas where there is no active conflict, illegal checkpoints, banditry, and demands for bribes are common (UNFPA 02/2018; OCHA, 24/01/2018).

**Aggravating factors**

**Healthcare access and AWD/Cholera**

Essential medical services in Somalia are insufficient and capacity was overstretched before flooding. Across Somalia 3.3 million people are lacking essential health services, including regions where humanitarian access is limited (WHO, 29/03/2018).

In 2018, AWD/Cholera cases with associated deaths have been reported mainly in Banaadir, Lower Juba, Middle Shabelle and Hiraan. Active transmission is reported in Beledweyne area (Hiraan), Jowhar district (Middle Shabelle) and Kismayo (Lower Juba) and 10 districts in Banaadir region (WHO, 20/01/2018; Ministry of Health and WHO, 24/04/2018). Heavy rains are likely to result in an increase in the number of cases.

A cumulative total of 2,268 cases of AWD/Cholera including 10 deaths have been reported in Somalia since December 2017. Prior to the recent rainfall, 626 AWD/cholera cases were reported in March alone (Ministry of Health and WHO, 24/04/2018). Poor sanitation practices, limited health infrastructure, and lack of potable water exacerbates the spread of AWD/cholera.
**Drought**

The rainfall during the 2017 *Deyr* rainy season (October-December) was below average for the fourth consecutive year, exacerbating drought conditions. Limited pasture and water availability also worsened livestock body conditions. Agricultural and pastoral livelihoods deteriorated during 2017 and 2018, which reduces resistance to cope with the impact of severe flooding (FEWS NET, 02/2018).

Deforestation, compounded by charcoal exportation, and drought exacerbates the impact of heavy rainfall as the land is unable to absorb water (FAO, 03/05/2018).

**Food Insecurity**

Banaadir, Bay, and Galgaduud regions are the areas most affected by food insecurity/malnutrition in central and southern Somalia prior to flooding. 270,000 IDPs face acute food insecurity (IPC 3 and 4) in Banaadir region. The region hosts 497,000 IDPs (FEWS NET, 01/05/2018; OCHA, 02/05/2018).

5.4 million people face food insecurity in Somalia (FSAU, 29/01/2018). Most areas of Somalia are in Stressed (IPC Phase 2) or in Crisis (IPC Phase 3). Over 2.7 million people are in Crisis and Emergency (IPC Phases 3 and 4) (FSAU, 29/01/2018). Around 74% of people in Emergency (IPC Phase 4) live in rural areas (FAO, 09/02/2018).

**Displacement**

Lower Shabelle, Banaadir and Bay regions are hosting the highest number of IDPs in Somalia. In the Lower Shabelle and Banaadir regions 310,000 people have been displaced by conflict and insecurity, 206,000 by drought, and 5,000 for other reasons. In Bay region, 299,000 people have been displaced by drought, 8,000 by conflict/insecurity and 55,000 for other reasons (UNHCR, 02/05/2018).

IDPs are living in a protracted state of displacement in poor living conditions with inadequate services. Settlements in Lower Shabelle and Banaadir regions have been strained by the continuous arrival of new IDPs. IDP settlements face particularly high levels of food insecurity and malnutrition (OCHA, 2018).

2.1 million people are displaced throughout Somalia and lack basic services. Before flooding, close to half of all IDPs already remained in need of emergency shelter and NFI support (London Conference, 06/03/2018; OCHA 24/04/2018).

**Key characteristics**

- **Demographic profile (total population):** 11,031,386 (Index Mundi, 2018).

<table>
<thead>
<tr>
<th>Region</th>
<th>&quot;UNFPA Total population&quot;</th>
<th>&quot;UNFPA Urban population&quot;</th>
<th>&quot;UNFPA Rural Population&quot;</th>
<th>&quot;UNFPA IDP Population&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiraan</td>
<td>520,686</td>
<td>81,379</td>
<td>388,147</td>
<td>51,160</td>
</tr>
<tr>
<td>Bay</td>
<td>792,182</td>
<td>93,046</td>
<td>659,316</td>
<td>39,820</td>
</tr>
<tr>
<td>Gedo</td>
<td>508,403</td>
<td>109,141</td>
<td>322,534</td>
<td>76,728</td>
</tr>
<tr>
<td>Middle Juba</td>
<td>362,921</td>
<td>56,242</td>
<td>279,679</td>
<td>27,000</td>
</tr>
<tr>
<td>Lower Juba</td>
<td>489,307</td>
<td>172,861</td>
<td>285,846</td>
<td>30,600</td>
</tr>
<tr>
<td>Banaadir</td>
<td>1,650,228</td>
<td>1,280,939</td>
<td>0</td>
<td>369,289</td>
</tr>
<tr>
<td>Middle Shabelle</td>
<td>362,921</td>
<td>56,242</td>
<td>279,679</td>
<td>27,000</td>
</tr>
<tr>
<td>Galgaduud</td>
<td>569,434</td>
<td>183,553</td>
<td>266,113</td>
<td>119,768</td>
</tr>
<tr>
<td>Lower Shabelle</td>
<td>1,202,219</td>
<td>215,752</td>
<td>883,497</td>
<td>102,970</td>
</tr>
</tbody>
</table>

Source: HDX, 05/03/2018

- **Food security figures:** 5.4 million people face food insecurity. Over 2.7 million people are in Crisis and Emergency (IPC Phases 3 and 4) (FSNAU, 29/01/2018).

- **Nutrition levels:** 1.4 million people are in need of nutrition assistance in Somalia (OCHA, 12/2017). 301,000 children aged 6-59 months are acutely malnourished, including 48,000 severely malnourished (FSNAU, 01/03/2018).
Health: Infant mortality rate: total: 94.8 deaths/1,000 live births. Male: 103.3 deaths/1,000 live births. Female: 86 deaths/1,000 live births (Index Mundi, 2017).

WASH: Drinking water source improved: urban: 69.6% of population; rural: 8.8% of population; total: 31.7% of population / unimproved: urban: 30.4% of population; rural: 91.2% of population; total: 68.3% of population (Index Mundi, 2011).

Literacy levels. 37.8% of the population is literate: 49.7% of males, and 25.8% of females (Index Mundi, 25/04/2018).

Response capacity

Local and national response capacity

The Somalia Water and Land Information Management (SWALIM) provide vital information on water sources, river gauging networks, weather monitoring, and flood early warning and response (SWALIM). The Federal Ministry of Humanitarian Affairs and Disaster Management and the National Humanitarian Coordination are providing response (OCHA 22/04/2018). Somali National Army (SNA) is helping in delivering food (The East African, 30/04/2018). Somali Red Crescent is helping the affected people (The Telegraph, 30/04/2018).

International response capacity

Humanitarian clusters and international organisations in collaboration with local authorities are supporting people in flood-affected areas. Peacekeepers serving with the African Union Mission in Somalia (AMISOM) have also joined the efforts to relocate affected people by flooding (The East African, 30/04/2018). There are insufficient funds to support affected communities (OCHA 22/04/2018; All Africa, 29/04/2018).

Operational presence before flooding

Some organizations are already undertaking activities in the country and it is likely they are responding to the impact of the floods.

- Hiraan region
  WASH: IOM, UNICEF, DRC
  Health: WHO, Mercy USA
  Shelter: DKH
  Food: WFP, UNICEF, Mercy USA

- Bay Region
  WASH: IOM, UNICEF, ACTED, DRC, Mercy Corps
  Health: WHO, IMC
  Shelter: IOM, ACTED, DRC
  Food: FAO, WFP
  Nutrition: UNICEF, WFP, WHO
  Education: UNICEF, NRC

- Gedo, Lower Juba and Middle Juba regions (Jubaland)
  WASH: ACTED, DRC, MEDAIR, Mercy Corps, NRC, SADO, IOM, UNICEF, UNHCR
  Health: WHO, Mercy USA
  Shelter: ACTED, Mercy Corps, NRC, UNHCR
  Food: CARE, HIMFO, MEDAIR, UNICEF, WFP
  Education: UNICEF

- Banaadir Region
  WASH: DRC, IMC, IR, MEDAIR, Mercy Corps, NRC, UNICEF, IOM
  Health: ACF, Mercy USA, WHO
  Shelter: DRC, Mercy Corps, UNHCR, IOM
  Food: WFP, UNICEF, ACF, Aid Vision, IRC, MEDAIR, Mercy USA,
  Education: UNICEF
  (Source: UNICEF, 03/2018)

Information gaps and needs

There is lack of information regarding sectoral needs of people affected. Information regarding displacement as a result of recent floods is limited, especially in areas of insecurity.
Lessons learned

To mitigate and control the effects of the floods, SWALIM, FAO, and United States Geological Survey have created flood forecasting and early warning systems. Lessons learned from past floods have led to the creation of various initiatives, including the production of a flood bulletin, establishment of a flood information centre in Somalia, building a flood information dissemination network in Somalia, and developing and improving the flood prediction methodologies (SWALIM, 10/06/2016).

Past floods in the region have led responders to believe that flood risk management, readiness for response, and community preparedness is only effective when carried out in an integrated manner. International organisations should work closely with local and regional administrations to improve conditions of affected people and maximize the use of resources (Horn Observer, 24/04/2018).

Flexibility in delivery of aid is necessary in areas of insecurity to ensure it is delivered to areas largely considered inaccessible. During the drought in 2011, aid deliveries from the Middle East, Turkey, and Islamic Relief agencies were permitted to otherwise inaccessible areas due to their religious links (Rift Valley Institute 19/10/2016).

Cash transfers were an effective response during previous crisis in Somalia. This allowed people to support community and distribute aid among themselves where access was limited (Rift Valley Institute 19/10/2016).

Resilience to natural disasters includes knowledge and skills to prepare for and cope with disasters, and the financial security to recover and rebuild in the aftermath of a shock (WFP, 2014).

Flood control measures and policies should be directed to the mitigation of flood damage rather than flood prevention. Resources should be allocated to help people adopt a lifestyle that conforms to their natural environment. Solutions such as changing housing structures and crop patterns can help reduce flood damage.
Somalia rainfall forecast

Source: SWALIM, 30/04/2018