AFGHANISTAN
Impact of flooding

CRISIS IMPACT OVERVIEW

Above-average precipitation and extreme rainfall events, mainly attributable to the combined effects of El Niño and climate change, have been triggering floods, flash floods, and mudslides in 25 of Afghanistan's 34 provinces since the end of February 2024. This has resulted in casualties, displacement, widespread housing and infrastructure damage, and significant crop and livestock losses (UN Climate Crisis Coordinator 16/05/2024; IFRC 15/05/2024). By 12 May, floods had affected more than 30,000 people throughout the country within the year (OCHA 12/05/2024). These events follow the end of an exceptionally dry winter season that delayed crop planting and threatened a fourth consecutive year of drought (AJ 14/04/2024; FEWS NET 23/01/2024). Floods are the most common natural hazard in Afghanistan. In 2024, soil aridity arising from previous droughts limited water absorption and increased run-off, resulting in worse flooding (WB 2021; AJ 10/05/2024).

Since 10 May, heavy rainfall in central, northern, and western Afghanistan have triggered severe flooding and mudslides in Badakhshan, Baghlan, Ghor, Faryab, Herat, and Takhar provinces, resulting in substantial loss of life and extensive damage (OCHA 12/05/2024; ECHO 14/05/2024; OCHA 20/05/2024). By 16 May, a total of 214 fatalities and 328 injuries were confirmed, including 128 children under five and 202 women (Health Cluster 17/05/2025). As areas become accessible, the number of casualties is expected to rise. Among the most affected districts are Burka and Baghal-e-Jadid districts in Baghlan province, which collectively record 80% of all deaths (OCHA 16/05/2024). The floods have destroyed or damaged around 12,000 homes in the affected provinces (ECHO 16/05/2024). Rescue operations and rapid assessments are underway, and there are wide variations in the reporting figures regarding the magnitude of the impact, with access constraints to some affected areas being a major challenge (STC 17/05/2024; OCHA 16/05/2024).

In April, heavy rainfalls triggered floods across Central, Central Highland, Northeastern, Northern, Southern, and Western regions (OCHA 17/04/2024; IR 19/04/2024). The most affected provinces included Badakhshan, Badghis, Farah, Ghazni, Ghor, Helmand, Herat, Kabul, Kandahar, Kunar, Laghman, Nimroz, Paktia, Parwan, Saripul, Takhar, Uruzgan, and Zabul. By 23 April, there were at least 90 fatalities and dozens of injuries reported across these provinces. The rainfall had also damaged more than 2,000 houses and killed thousands of livestock across the country (ECHO 24/04/2024). In March, heavy rainfall particularly affected Faryab province in the Northern region, Nangarhar province in Eastern region, and Daykundi province in Central Highland region. By 30 March, the floods had destroyed more than 1,500 acres of agricultural land and severely damaged 540 homes (OCHA 30/03/2024).

Anticipated scope and scale

- Above-average rainfall is expected to continue until the end of May, particularly in Central and Northeastern regions, which may trigger new flooding and landslides in the current flood-affected areas (Baig and ul Hasson 21/12/2023; IRI accessed 15/05/2024). The Interim Taliban Authorities (ITA) have stated that both the number of casualties and the extent of financial losses may increase further (AFIntl 12/05/2024).

- Seasonal precipitation forecasts for June–August anticipate above-average rainfall, particularly in Southeastern regions (C3S accessed 15/05/2024; WMO accessed 15/05/2024). Temperatures are also expected to remain above normal in the entire country for the same period (WMO accessed 15/05/2024).

- Starting from July, the South Asian monsoon will increase the flooding risk in southeastern provinces and particularly over Kabul River Basin, where its influence has become more prominent and flooding more frequent in recent decades (UNDRR 02/10/2023; Baig and ul Hasson 21/12/2023). Areas facing this risk include Kabul, Kapisa, Nangarhar, and Parwan provinces. This year's abnormal temperatures may enhance snowmelt-related flooding in mountainous regions, keeping the risk high between April–June (Baig and ul Hasson 21/12/2023; Ikralm et al. 13/09/2023; WMO accessed 15/05/2024).

KEY FIGURES

30,000
FLOOD-AFFECTED PEOPLE SINCE THE BEGINNING OF 2024

214
RELATED FATALITIES IN NORTHEASTERN REGIONS

High risk
OF FURTHER HEAVY RAIN AND FLOODING

8.8
INFORM CLIMATE CHANGE RISK SCORE

FUNDING AND RESPONSE CAPACITY

- UN agencies (WHO, UNICEF, WFP, IOM)
- National and international NGOs
- ARCS and IFRC

Humanitarian constraints

- Road damage in Badakhshan, Baghlan, and Takhar provinces is hindering the activities of joint assessment teams and preventing aid delivery to some affected locations (Health Cluster 13/05/2024; OCHA 16/05/2024). The districts of Burka, Guzargah Noor, Jelga, Khost, Nahrin, and Tala wa Barfak in Baghlan province are facing significant access challenges (Health Cluster 17/05/2024; OCHA 16/05/2024).

- Female staff have been mobilised to participate in the response and ensure access to affected women; in Northeastern region, 69% of women found it difficult to access assistance prior to the floods (UN WOMEN 20/05/2024).

- Afghanistan has an overall score of 4/5 on the Humanitarian Access Index, indicating very high access constraints (ACAPS accessed 13/03/2024).

- ITA restrictions continue to hinder humanitarian organisations' ability to operate freely in the country. In March, there were 144 reported humanitarian access incidents, and violence against humanitarian personnel, assets, and facilities surged by 350%, with 18 reported incidents compared to 4 in February (OCHA 23/04/2024).

CRISIS IMPACTS

Food security and livelihoods

Flooding recorded since March 2024 has significantly destroyed crops and killed livestock, including in some major staple crop-producing provinces. In April, flooding affected around 10,000 acres of agricultural land, particularly in eastern and southeastern parts of the country (FEWS NET accessed 15/05/2024). In May, the floods destroyed 10,200 acres of orchards and led to 2,260 and 2,000 livestock losses in Baghlan and Badakhshan provinces, respectively. There is also reported damage to irrigation channels (OCHA 12/05/2024 and 16/05/2024). On the other hand, the March–May rainfall significantly reduced the precipitation deficits observed at the beginning of the season in large parts of the country, benefitting both crops and rangeland (FEWS NET 01/05/2024). At the beginning of May, wheat harvesting was underway, with overall favourable outlooks at the national scale (GEOGLAM 05/2024).

Floods are likely to affect the population's access to food and NFIs in the flood-hit provinces, reducing supply, increasing prices, and hindering market access, as indicated by a rapid market assessment conducted in Baghlan province (REACH 17/05/2024). The combination of high precipitation and above-average temperatures expected to continue during the months of June-September, together with limited locust control, will increase the risk of crop pests and diseases. Yellow rust and locust infestations have already been reported in Herat province (KabulNow 23/04/2024; FEWS NET 01/05/2024). At the same time, projected above-average temperatures will likely drive high evapotranspiration rates from August–September, affecting rangeland vegetation and second-season crops (FEWS NET 01/05/2024). Cool temperatures and high soil moisture levels may also cause delays in spring wheat planting in Badakhshan and Central Highland region (GEOGLAM 05/2024).

Shelter

Floods in Badakhshan, Baghlan, Ghor, Herat, and Takhar provinces have damaged and destroyed houses, displacing thousands of people, including 40,000 children (IFRC 15/05/2024; STC 13/05/2024). By 16 May, the flooding had affected around 12,000 homes in the affected provinces (ECHO 16/05/2024). Emergency shelters and NFIs are among the most pressing needs (OCHA 12/05/2024). Protection risks associated with shelter loss are likely unless responders take measures to urgently address relevant needs (OCHA 16/05/2024). Displaced women and girls residing in congested evacuation centres and informal settlements face a heightened risk of gender-based violence (DGAP 30/11/2022).

WASH and health

There is partial information about the WASH impacts of the floods, as assessments are still underway. Flooding and mudslides have likely severely damaged water and sanitation infrastructure, increasing the risk of water contamination in the affected provinces. This, in conjunction with above-average temperatures, may increase the incidence of waterborne and vector-borne diseases, such as cholera, acute watery diarrhoea, and malaria (WHO accessed 11/03/2024). In Baghlan province, there has been severe damage to latrines, bathing facilities, and water networks, particularly in Sheikh Jalal in Baghlani Jadid, as well as in Laqyan village and Nahrin district (OCHA 16/05/2024). More than 21 million people were already estimated to require WASH services in 2024 prior to the flooding, especially in Northeastern, Northern, and Southern regions, where limited WASH access is a common driver of waterborne diseases (OCHA 23/12/2023). The lack of access to water and sanitation facilities particularly affects women and girls, who are exposed to increased health risks given challenges related to menstrual hygiene. They also face a heightened risk of gender-based violence when reaching water and sanitation facilities, particularly in temporary shelters (Afghanaid 07/03/2024; UNICEF 27/05/2021; Tallman et al. 03/10/2022).

The floods have also destroyed or damaged several health facilities, rendering them non-operational (WHO 12/05/2024). There is a reported increase in the number of cases of waterborne illnesses, particularly diarrhoea and skin infections, in flood-affected areas (Health Cluster 13/05/2024). By 16 May, Baghlan province reported 106 cases of acute respiratory infection with pneumonia and 115 cases of acute watery diarrhoea (OCHA 16/05/2024). The ambulances in operation in the affected areas are unable to reach some remote areas within districts because of access constraints (Health Cluster 13/05/2024). Water, medical supplies, chlorine, water tabs, and hygiene kits, along with technical support to assess and repair water wells and the clearance of dead livestock to reduce disease spread, are among the most pressing WASH and health needs (OCHA 12/05/2024; OCHA 16/05/2024).

Education

The recent flooding has destroyed seven schools in the provinces of Baghlan and Takhar. It also damaged 19 schools in Baghlan province, in the districts of Baghlan-e-Markazi, Burka, Guzargah Noor, and Nahrin. Many community-based education classrooms in Baghlan and Badakhshan provinces have also sustained damage (OCHA 12/05/2024). Even before the flooding, the education sector in the affected locations already lacked essential resources. Out of 570 schools in Baghlan, 209 lacked buildings, forcing over 51,000 students to learn outdoors (PAN 13/03/2024). In Takhar province, 350 out of 710 schools lacked buildings. The educational sector in the province also faced a shortage of teachers, educational materials,

and stationery (PAN 12/03/2023). In Badakhshan province, approximately half of the schools did not have buildings (Hasht-e Subh 25/03/2024). Consequently, some children in remote village areas gave up attending school in cold or warm weather (PAN 13/03/2024).

Critical infrastructure

Although obtaining aggregated figures of damaged and destroyed road infrastructure remains challenging given access constraints to some affected areas, the scale of the damage appears significant. By 12 May, the flooding had destroyed 50 bridges and 30 electricity dams in Badakhshan province, and road damage hindered access across Badakhshan, Baghlan, and Takhar (OCHA 12/05/2024). In April, floods and landslides destroyed an estimated 600km of road. Damage to culverts is also disrupting transportation networks (OCHA 17/04/2024; AJ 14/04/2024).

DRIVERS OF THE CRISIS

El Niño and climate change

In Afghanistan, El Niño typically brings above-average late winter and spring precipitation, particularly in Northeastern and Northern regions, increasing the risk of flooding (OCHA 11/12/2023). The phenomenon, which started in June 2023, is expected to transition to neutral conditions in June 2024, with La Niña likely to develop before September 2024 (NOAA 09/05/2024). Climate change is increasing the likelihood of extreme weather events associated with both El Niño and La Niña (IPCC 2021). Global warming is also increasing the frequency of strong El Niño and La Niña events, and more recurrent swings from a strong El Niño to a strong La Niña are anticipated in the future (Cai et al. 18/05/2023).

Afghanistan ranks among the ten countries most vulnerable to climate change (ND-GAIN accessed 15/15/2024). Since 1900, average temperatures have increased by more than 1.5º C, with Central and Southwestern regions experiencing the most significant warming, accelerating snowmelt and glacial high melt. Precipitation has become more erratic and unpredictable, triggering frequent dry spells and flooding (WB accessed 15/15/2023). Decades of conflict have led to significant environmental degradation, affecting livelihoods and diminishing the population's ability to cope and adapt. Soil erosion, desertification, overgrazing, deforestation, and inadequate natural resource management have enhanced the impacts of climate stressors (NUPI/SIPRI 03/02/2023). Flooding is the most frequent natural hazard in Afghanistan, causing, on average, USD 54 million worth of damage each year (WB/

GFDRR 01/02/2017). While a comprehensive analysis of flooding frequency and intensity trends at the national level is unavailable, studies indicate that climate change is amplifying the frequency of flood events in certain river basins (Iqbal et al. 30/03/2018; WB 2021; Mayar et al. 03/03/2020).

AGGRAVATING FACTORS

Socioeconomic and political vulnerability to climate shocks

Afghanistan shows high levels of vulnerability to climate shocks, particularly among women, girls, children, people with disabilities, IDPs, returnees, and nomadic communities (OCHA 01/08/2023; Afghanaid 19/10/2023; IFRC 04/2021). The lack of mobility for women and people with disabilities is a significant factor aggravating the impact of climate change on their lives. During the recent heavy rains, women and girls were reported to remain inside their homes, while men sought shelter in mosques and sturdier buildings, which were deemed safer. This may explain the high number of casualties among women and children (UN WOMEN 20/05/2024). Cultural norms and current restrictions on women and girls in the country, including on mobility, education, and work, may have also prevented women from accessing preparedness and early-warning information and resources, hindering their ability to evacuate swiftly (UN WOMEN 20/05/2024).

Demographic growth and pressure on land have led to an increasing number of settlements and housing in flood-prone areas, in the context of poor drainage infrastructure and urban planning (AAN 15/05/2024; TRT 15/04/2024). Sanctions on the banking system and the freeze of financial and development support since the ITA takeover in 2021 have affected climate adaptation and disaster risk management programmes previously supported by international stakeholders, including flood risk mitigation programmes (Context 27/11/2023; AAN 15/05/2024). The current limited flood risk monitoring and early warning capacity may have contributed to the high number of casualties reported during the recent flooding (AAN 15/05/2024; UNDRR 02/10/2023).
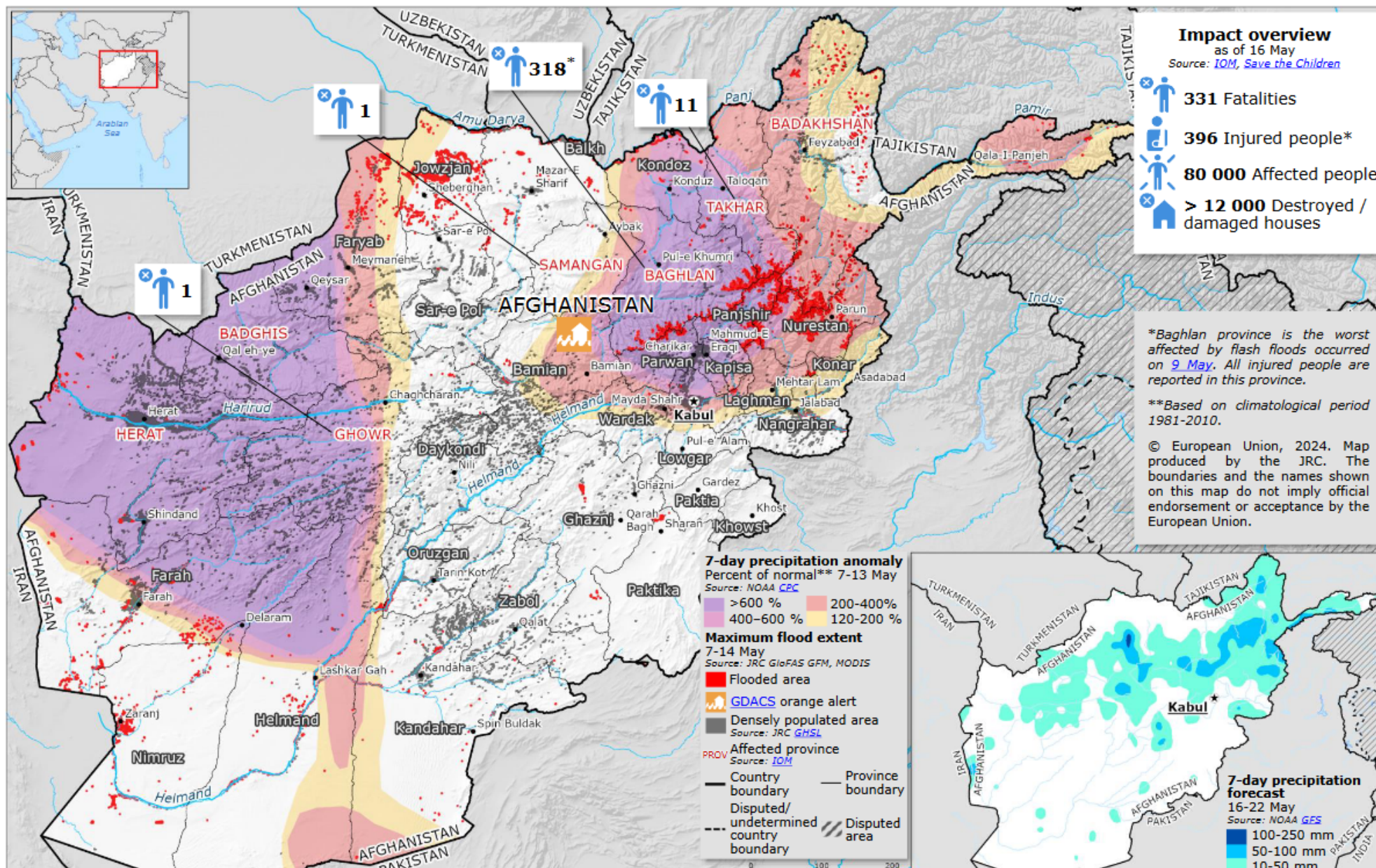
2023 earthquakes

In October 2023, four magnitude-6.3 earthquakes, along with multiple aftershocks, hit Herat province, affecting 1.6 million people and leaving 114,000 in need of humanitarian assistance (OCHA 16/10/2023). The earthquakes destroyed or damaged 10,000 homes, leaving over 55,000 people in need of shelter assistance (OCHA 16/10/2023; IPC 14/12/2023). The earthquakes also affected schools, health facilities, and other essential infrastructure. Damage to healthcare facilities disrupted services for around 580,000 people (OCHA 16/10/2023). Local reports mention the severe impacts of the May 2024 flooding in Guzara, Injil, Obe, Pashtun Zarghun, Shindand, and Zindajan districts of Herat province, where earthquake-affected communities had lost their temporary shelters (UNHCR 20/04/2024; AMU TV 07/05/2024).

FUNDING AND RESPONSE CAPACITY

On 11 May 2024, the Afghan Ministry of Defense declared a state of emergency in the affected areas and announced that it had started distributing food, medicine, and first aid to the affected people (AJ 11/05/2024). UN agencies and NGOs are coordinating with the ITA on the immediate response, working alongside the Afghanistan National Disaster Management Agency and the Afghan Ministry of Refugees and Repatriation. Rapid assessments and initial relief operations are currently underway (OCHA 16/05/2024). In coordination with the Afghan Red Crescent Society and other affiliates of the International Red Cross and Red Crescent Movement (IFRC), the IFRC has dispatched multisector teams to the hardest-hit areas for relief aid and rapid assessments and launched an emergency appeal to assist 140,000 people across the 14 most affected provinces of Afghanistan (IFRC 15/05/2024 and 17/05/2024). Food and agricultural assistance have reached around 10,000 people (OCHA 16/05/2024). WFP delivered 51.256 metric tons of mixed food commodities to Baghlan-e-Jadid and has food stocks and resources available in Kunduz and Faizabad provinces to cover the food needs of flash flood-affected households across the region. In Baghlan province, responders have enough nutrition supply until the end of June, but road damage is hindering delivery to flood-affected districts and villages. Health Cluster affiliates have deployed 22 mobile health teams to Badakhshan, Baghlan, and Takhar provinces to deliver immediate medical assistance and facilitate the transfer of patients to appropriate healthcare facilities (OCHA 12/05/2024). 30 mobile health and nutrition teams and eight WHO-supported surveillance support teams have also been deployed in Baghlan province (OCHA 16/05/2024; Health Cluster 13/05/2024).

AFGHANISTAN FLASH FLOODS

Impact overview
as of 16 May
Source: IOM, Save the Children

331 Fatalities

396 Injured people*

80 000 Affected people

> 12 000 Destroyed / damaged houses

*Baghlan province is the worst affected by flash floods occurred on 9 May. All injured people are reported in this province.

**Based on climatological period 1981-2010.

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7-day precipitation anomaly
Percent of normal** 7-13 May
Source: NOAA CPC
- >600 %
- 400–600 %
- 200-400 %
- 120-200 %

Maximum flood extent
7-14 May
Source: JRC GloFAS GFM, MODIS
- Flooded area
- GDACS orange alert
- Densely populated area
  Source: JRC GHSL
- PROV Affected province
  Source: IOM

— Country boundary
— Province boundary
--- Disputed/ undetermined country boundary
/// Disputed area

7-day precipitation forecast
16-22 May
Source: NOAA GFS
- 100-250 mm
- 50-100 mm
- 10-50 mm

Source: ECHO (16/05/2024)