SITUATION OVERVIEW

Libya 2023 floods: Emergency Situation Overview Albayda

15 September 2023 I Libya

CONTEXT & RATIONALE

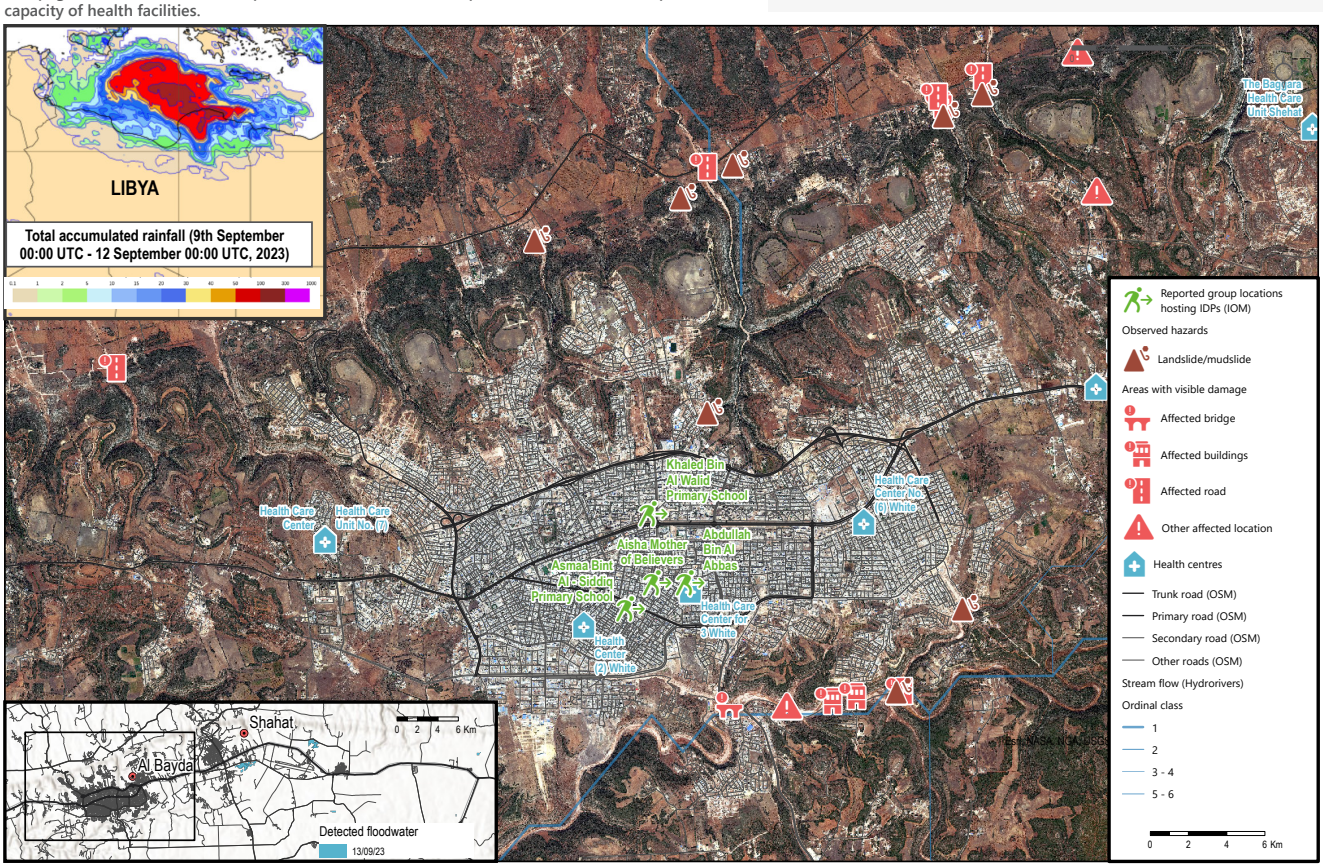
On the 10th of September, storm Daniel caused largescale flooding in Libya's northeast, leading to loss of lives and infrastructure damage in several coastal towns and along rivers, including Derna, Benghazi, Al-Jabal Al-Akhder, Al-Marj, Batah, Bayada, Albayda, Shahat and Sousse. The city of Derna appears to be particularly hard-hit after two dams broke upstream, releasing over 30 million cubic meters of water into the city of Derna. Initial reports suggests extensive damage to housing and critical infrastructure. Early estimations suggest thousands of casualties in Derna and other affected areas, while over 10,000 people were reported missing.

At the time of writing, access challenges and conflicting information results in a lack of updated reliable data on the impact of the floods across affected areas. While the response efforts are focused on Derna, where the highest number of casualties has been reported so far, information on the situation in Albayda and other affected areas remains particularly scarce. This output provides initial remote sensing analysis on the impact of the storm in Albayda, triangulated with pre-crisis data from the 2022 Multi-Sector Needs Assessment (MSNA) to support emergency planning and prioritisation. Additional post-flooding assessment of the situation and urgent needs is required to gauge the full impact and inform the response.

KEY MESSAGES

- As of the 14th of September, 30,000 individuals are estimated to have been affected by the floods in Albayda, including roughly 3,000 people who have been displaced, according to the latest figures from IOM.
- Information on the impact of the storm on Albayda remains scarce. However, on post-impact satellite imagery, **damage to buildings and roads due to flash flooding and mudslides is visible near channels around Albayda (see page 3).**
- Findings from the 2022 MSNA highlight that households in Albayda were already facing challenges accessing sufficient clean water and healthcare and experiencing shelter damage prior to the storm, **exacerbating their vulnerability to the impact of the storm, including the risk of disease.**
- **Potential water contamination of the city network due to the presence of wastewater, debris, and the reported presence of bodies on the streets is a key public health risk**. While households are recommended to use bottled water to mitigate this risk, changes to the availability and (financial) accessibility of drinking water need to be monitored closely.

Map shows Albayda and key infrastructure with or without visible damage. It should be noted that not all damage can be detected on satellite imagery. Around the city's outskirts, imagery suggests mudslides have occurred as a result of the storm, some of which have caused considerable damage (see page 3). To date, there is no updated information on the impact of the storm on the operational capacity of health facilities.



Data sources: satellite imagery - Worldview 2 image (14 September 2023); flood extent - Copernicus Emergency Management (Analysis of Sentinel 1 data, 13 September 2023); total accumulated rainfall - ECMWF early-run high resolution forecast; health facilities - MSF (2023); reported locations of displacement - IOM; stream flow* - HydroRivers. *Stream flow refers to areas where runoff will accumulate based on topography. Ordinal class refers to the stream order, higher ordinal classes are primary channels.

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PRE-EXISTING NEEDS AND POTENTIAL IMPACT

Even prior to the storm, findings suggest that access to sufficient water was a particular concern in Albayda. In the 2022 MSNA, roughly half (47 per cent) of households were found to have unmet needs related to water, sanitation, and hygiene (WASH), positioning Albayda in the top 3 assessed baladiyas with the highest % of households with unmet WASH needs (out of 15 assessed baladiyas). One in five households reported not having access to sufficient amounts of water for drinking. Further analysis of the data indicates that water stress was partly driven by limited infrastructure functionality; while the public network was the main source of drinking water for most households, two-thirds of households reported only having access to water from the public network for 1-3 days per week. Moreover, 26% of households reported spending over 30 minutes to fetch water. Frequent and lengthy electricity shortages reported since the storm, in addition to direct damage to key water infrastructure will likely have exacerbated water stress in Albayda, **potentially creating imminent shortages.** Moreover, health authorities have warned that the presence of decomposing bodies, compounded by debris, wastewater, and mud in the streets, might lead to contamination of the public water network, and urged households to only use bottled water. **While this is critical to minimise the risk of disease**, availability and access to bottled water could become compromised if sudden increases in demand outpace supply.

Initial field reports suggest that at least some healthcare facilities have been affected by heavy rain, reducing operational capacity. For instance, on Wednesday 13 September, a video circulated online showing flooded corridors in one of the city's main hospitals. Moreover, anecdotal reports shared with REACH suggest hospitals are facing a shortage of ambulances, medical supplies, and water. Prior to the floods, households already commonly reported having experienced barriers to accessing care, most notably poor quality of care (70%), a lack of medicines (67%), an inability to afford services (35%), and overcrowding (22%). In fact, all households that had sought care in the 3 months prior to the MSNA reported having faced such barriers.

MSNA findings highlighted that a considerable share of households in Albayda were experiencing shelter issues prior to storm Daniel. Half of all internally displaced households and one-third of the non-displaced households reported their shelter was showing defects, most of them citing lack of insulation from heat and cold, followed by mold and moisture issues. Eleven per cent (11%) reported that rain leaks into their shelter, causing flooding and damage to walls. Reflective of this, shelter support was a frequently cited priority need, particularly among internally displaced households (47%). Considering the high intensity of rainfall during storm Daniel, **it is likely that heavy rain and mudslides have created and exacerbated shelter needs throughout the area.**

RISK FACTORS TO MONITOR

- In the 2022 MSNA, 47 per cent of households reported problems with the sewage in their neighbourhood, including wastewater contamination and bad smells. Further disruptions to already fragile sewage management and infrastructure, compounded by a lack of access to healthcare and shelter defects creates **significant public health risks.**
- Further compounding this risk, health authorities have warned that the presence of decomposing corpses drives an immediate risk **of contamination of water from the city's network.** In a statement issued on Thursday September 14, the Director of the Al-Bayda Medical Centre and Health Emergency Committee therefore urged affected communities to only use bottled water.
- In light of this, an increased demand for bottled water, as well as items such as emergency shelter construction materials following damages, might cause **price hikes** if demand outpaces supply. According to IOM, fuel stocks ran out in Albayda's petrol stations on the 13th of September; fuel shortages could further drive up prices of imported items. **These developments might significantly impact households' financial access to basic needs and services**.
- Initial figures from IOM and field reports indicate the increasing presence of displaced populations from Derna in Albayda, while information on the impact of the storm on service infrastructure and resources inside the town remains scarce. **Influx of displaced population might increase pressure on local services and resources and further exacerbate needs.**

DAMAGE ANALSIS: ZOOM-IN OF AFFECTED AREAS IN AND SURROUNDING ALBAYDA

These images show zoom-ins on areas of observed damage in Albayda and the surrounding area identified from very high resolution satellite imagery (Worldview 2) from the 14th of September, 2023. These images were compared with recent images from prior to the storm, taken from Google Earth (2023), to indicate and triangulate changes in the built and natural environment due to the storm.

Zoom-in 1 shows two areas to the northeast of Albayda that appear to have been affected by mudslides due to heavy rainfall running through the channels from the higher terrain to the south. A number of buildings and a minor road seem to have been affected.

In zoom-in 2, a number of buildings and minor roads have been affected by a mudflow.

Zoom-in 3 shows a road that has been submerged by debris due to flash flooding. Finally, **zoom-in 4** shows widespread destruction of homes and a road along the south bank of a channel.