



Secondary Data Analysis Report

Storm Daniel, Eastern Libya

20th November 2023

OVERVIEW

On September 10th, 2023, a disaster of significant magnitude unfolded as Storm Daniel struck the eastern coast of Libya. The rush of the storm, characterized by extreme winds, massive flooding, and the collapse of two dams, primarily ravaged the cities of Derna, Al Bayda, Benghazi, and Al Marj¹. The severity of the situation was acutely felt in Derna, where the loss of electricity and communication systems plunged the city into a state of darkness and isolation.

This environmental calamity resulted in a grievous loss of life and mass displacement. As of October, 31st over 4,352 people lost their lives, with more than 8,000 still missing, mainly in Derna. The disaster displaced 43,400 individuals across the region, highlighting the severity of the storm's impact². This displacement included substantial numbers in Derna, Al Bayda, Benghazi, and Al Marj, and led to the relocation of over 900 families from the eastern to the western regions of Libya, including Tripoli³.

In the wake of the storm, people found themselves in dire need of humanitarian assistance, particularly in areas such as Shelter, Health, WASH, food, and education. The Libyan Red Crescent Society (LRCs) and local authorities, along with international agencies like the UN, swiftly responded to these needs. Two months after the flooding, international aid had reached over 180,000 affected individuals. Yet, the challenges remained substantial.

This comprehensive overview outlines the gravity of the disaster, the ongoing humanitarian response efforts in the region, and the urgent need for continued support and assistance.

¹ <https://www.britannica.com/event/Libya-flooding-of-2023>

² <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-7-november-2023-enar>

³ <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-26-october-2023-enar>

CRISIS SEVERITY AND PRIORITIES

1. Humanitarian Crisis^{4,5}

Hurricane Daniel, classified as one of the most devastating natural disasters in recent history, has wrought extensive disruption throughout Libya, compounding the challenges in a region already grappling with significant humanitarian issues. Following the 2011 crisis, Libya has been grappling with complex population movements, involving over 706,000 migrants, refugees, and internally displaced people (IDPs). Storm Daniel exacerbated these challenges, affecting numerous displaced persons and migrants. As more IDPs gradually return to their homes, they continue to face obstacles such as damaged residences and restricted access to essential services. Additionally, forced expulsion of migrants have increased sharply, raising serious concerns⁶. The vulnerable populations, including returnees primarily displaced following previous conflicts, now find themselves dealing with the aftermath of the hurricane, which may have further strained access to basic necessities such as shelter, food security, and non-food items.

The destruction caused by Hurricane Daniel have compromised infrastructure, hindered humanitarian aid delivery, and escalated the overall vulnerability of the affected population and has significantly heightened the vulnerabilities of the affected population, especially those who were already facing difficulties and were more vulnerable.

Shelter requirements have become particularly urgent as the flooding destroyed homes, leading to a substantial demand for temporary shelters. Currently, IDPs are seeking refuge with relatives, friends, or in collective centers. However, the limited number of collective sites, now reduced to 10 in Derna, Albayda, and Benghazi, poses a challenge. Overcrowded conditions in these shelters strain available resources, emphasizing the pressing need for safe and sustainable housing solutions.

The health challenges in crisis-affected areas have been further complicated by damaged infrastructure, shortages of supplies and personnel, and difficulties in access and distribution. The reported cases of over 6,496 instances of diarrhea among the population underscore the immediate need for effective healthcare interventions⁷.

Water and sanitation issues are critical concerns as well, with compromised infrastructure affecting access to clean water and essential sanitation facilities. Humanitarian partners, including UNICEF, have responded by increasing water trucking, delivering over 756,000 liters of safe drinking water to 3,493 people in affected areas—an essential step in preventing disease and maintaining basic hygiene.⁸

The United Nations High Commissioner for Refugees (UNHCR) has played a crucial role in addressing the needs of more than 45,000 people affected by recent crises in Libya. Through the provision of Non-Food Item (NFI) assistance, including Core Relief Items (CRIs), hygiene kits, and medical supplies, the UNHCR has worked to mitigate the immediate effects of displacement, particularly in Derna—the city most impacted by floods. As these immediate responses are underway, it is essential to recognize that the long-term challenges facing Libya are substantial. Damaged infrastructure, potential water scarcity, and socio-economic impacts require comprehensive attention and resources. The rehabilitation of heavily affected areas, such as Derna district, demands considerable financial support, expertise, and time.

4 <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-7-november-2023-enar>

5 <https://reliefweb.int/report/libya/unhcr-update-libya-october-2023-enar>

6 <https://reliefweb.int/report/libya/libya-mena-region-storm-daniel-revised-emergency-appeal-no-mdrly005>

7 <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-7-november-2023-enar>

8 <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-7-november-2023-enar>

Affected population

250,000

Severity index



9

2. Identified priority needs

<p>Priority need #1</p> <p>Shelter</p>	<p>Priority need #2</p> <p>Health</p>	<p>Priority need #3</p> <p>WASH and Hygiene</p>
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On the basis of the Multi-Thematic Rapid Needs Assessment (MTRNA), a joint multisectoral needs assessment organized among UN agencies, the Libyan INGO Forum and Civil Society Organizations, coordinated by UNDAC on the 10 and 11 of September 2023, with data collected by 13 partners, major priority needs were identified:¹⁰

Priority need #1 - Shelter and Housing

Short term: Access to temporary shelter solution. Establishing tented settlements and temporary housing units in safe zones to accommodate the displaced populations.¹¹

Long term: Support to permanent housing solutions. Coordinate and support local municipalities for the rehabilitation of damaged houses and reconstruction of destroyed houses, ensuring they are resilient to future natural disasters.¹²

Accommodation remains a pressing concern, especially in Derna. The affected population is increasingly seeking cash assistance for rent or rental subsidies. There's also demand for specific structural components, such as doors, door frames, roofing materials, and safety items like windows and electrical wiring. In addition, there's an urgent need for non-food items (NFIs) related to shelter. Essential items include bedding, mattresses, sleeping bags, blankets, and clothing. Also, cooking utilities and materials for clearing debris and mud from homes not requiring rehabilitation are in demand. Derna Governorate is comprised of two main areas: Derna and Al Tamimi settlements. Of the 30,975 structures identified across four governorates, 4,107 were in the Derna governorate, with 128 situated in the Al Tamimi settlement. The UNOSAT Rapid Mapping team used a photo-interpretation approach with very-high resolution satellite imagery, both before and after Hurricane Daniel, to conduct the damage assessment in these settlements. This satellite imagery was sourced through the Space Charter mechanism¹³.

According to the Rapid Needs Assessment (MTRNA) findings, from the 592 key informants in the MTRNA:

- 39 reported that 10% or fewer buildings in their community were unusable due to mild damage.
- 13 indicated 10-25% of buildings were unusable due to moderate damage.
- 20 highlighted that over 25% of buildings were severely damaged or destroyed.

Many informants also noted increased costs for NFIs, and some stated markets selling these items have either ceased operations or no longer stock essential NFIs. Over the past month, humanitarian partners provided non-food relief items to over 32,000 individuals across areas like Benghazi, Derna, and Tobruk. A consensus

⁹ <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-7-november-2023-enar>

¹⁰ <https://reliefweb.int/report/libya/libya-floods-multi-thematic-rapid-needs-assessment-mtrna-report-19-26-september-2023>

¹¹ <https://reliefweb.int/report/libya/wfp-libya-floods-response-external-situation-report-4-11-october-2023>

¹² <https://unosat.org/products/3687>

¹³ <https://unosat.org/products/3687>

emerged regarding a standardized NFI kit, and there's a move towards transitioning from in-kind distributions to cash assistance. In Derna, local authorities oversaw the distribution of NFIs to over 40,000 people, and have signaled the need for another round for an additional 5,000 families. Dialogues have started with local authorities concerning shelter solutions. Proposals include offering prefabricated houses to affected individuals in safe zones. Some partners have also initiated cash-for-shelter projects¹⁴.

Priority need #2 - Medical and Health Services

Short term: Provide prompt healthcare services to the injured and sick, setting up mobile medical units in affected areas. Prevent the outbreak of diseases, especially waterborne illnesses, distributing essential medicines and vaccines. Offer counseling and mental health support to those traumatized by the hurricane's effects deploying mental health professionals for immediate assistance.

Long term: Transition from immediate response to continuous healthcare provision, establishing semi-permanent medical facilities in the affected regions. Develop a comprehensive public health infrastructure investing in clean water supply, sanitation, and community health programs. Address long-term mental health needs^{15,16}.

Coastal towns between Almarj and Derna experienced damage to their Primary Health Care facilities, losing essential equipment, ambulances, power, and internet connectivity. Four PHC centers in Derna are earmarked by the MoH as top priorities for urgent repairs. The floods exacerbated shortages of medicines, vaccines, and medical supplies, reducing access to essential health services, especially for those with chronic diseases. The tragic loss of 101 health workers in the floods further strained already-depleted staffing resources in Libya's health facilities.

WHO assessments have identified that 27% of health facilities need urgent assistance to restart their immunization services. Disruptions to the vaccine cold chain and acute vaccine shortages are pressing concerns.

Disruptions to the vaccine cold chain and acute vaccine shortages have put around 9,000 children at risk of missing their routine vaccinations. The already-challenged referral system in eastern Libya suffered further due to damaged roads and lost ambulances in the floods. The health authorities have identified the restoral/strengthening of the referral system as a priority¹⁷.

According to the MTRNA, 165 out of 297 Key Informants (KIs) highlighted the need for emergency care, treatment for chronic diseases, and specific surgical services. Treatment for acute respiratory diseases and access to reproductive health services was also mentioned by 87 KIs.

Out of 235 health facilities assessed, 126 (or 63%) were found to be partially or non-functioning. About 27% of the assessed health facilities need immediate intervention to resume their immunization services. Mobile medical teams have been dispatched to supplement maternal and child health services. There have been reports of thousands of poisoning cases due to water contamination. Measures, like prepositioning Acute Watery Diarrhea (AWD) Kits and malaria kits, are in place to enhance preparedness for local health emergencies¹⁸.

As of October 10, 2023, 36 individuals benefited from mental health consultations at Al-Wahda Hospital in Derna, indicating a growing need for such services.

MHPSS has been highlighted as a priority by 58 KIs in the MTRNA and by frontline workers, including health professionals and first responders. There's a notable lack of trained mental health specialists, and many potential providers are themselves traumatized. MHPSS emerges as a crucial need. Around 2,000 individuals

¹⁴ <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-3-october-2023-enar>

¹⁵ <https://reliefweb.int/report/libya/libya-flood-response-situation-report-11-october-2023>

¹⁶ <https://reliefweb.int/report/libya/libya-hurricane-daniel-situation-report-5-12102023>

¹⁷ <https://reliefweb.int/report/libya/libya-flood-response-situation-report-11-october-2023>

¹⁸ <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-10-october-2023-enar>

in Derna previously receiving mental health services will need expanded and sustained care. Libya's establishment of the Higher Committee on Mental Health seeks to address these needs¹⁹.

Humanitarian partners continue to offer MHPSS to internally displaced persons (IDPs) in Benghazi and children in affected regions. Over 150 individuals across various locations have been trained in MHPSS and psychological first aid.

Priority need #3 - Water, Sanitation, and Hygiene (WASH)

Short term: Provide immediate access to clean drinking water, deploying mobile water purification units in affected areas. Ensure basic sanitation in displaced camps, setting up temporary sanitation facilities, such as portable toilets and waste disposal units. Raise awareness about personal hygiene to prevent waterborne diseases. Conducting community awareness campaigns on maintaining personal hygiene.

Long term: Develop a resilient and sustainable water supply infrastructure, investing in permanent or semi-permanent water treatment facilities for continuous clean water access. Establish permanent sanitation solutions for displaced populations collaborating with local authorities to build and maintain permanent sanitation facilities. Cultivate long-term hygiene practices within communities, continuing awareness campaigns and education programs for ongoing hygiene promotion.

Access to safe drinking water remains a prominent concern across all affected regions. Contaminated water and inadequate hygiene and sanitation facilities present significant health risks. The National Center for Disease Control (NCDC) surveillance reports showed a relative decline of the reported Acute Diarrhoea cases from the flood affected areas after reporting of 4,464 cases since September 14 to October 16, 2023²⁰. Stagnant water fosters conditions ripe for vector-borne and waterborne diseases. City officials in Derna advised residents to use bottled water, and active measures are being taken to prevent waterborne diseases, but local authorities in Derna have reported a scarcity of bottled water supplies²¹.

Key Informants (KIs) have expressed concerns regarding the difficulty in accessing water selling points and the inflated prices of water. Humanitarian partners are actively supporting local service providers to restore the Derna desalination plant to a quarter of its pre-flood capacity. There's also a focus on restoring primary pipelines from the desalination plant and at least four boreholes. Additionally, chlorine products have been provided to service providers for treating water reservoirs for Derna city, and water purification tablets are being distributed at the household level²².

Establishing water quality testing at distribution points has seen delays. Similarly, water trucking to collective centers and IDP sites is experiencing delays.

Over the past month, hygiene kit distributions reached over 30,000 individuals. Partners are continuously mapping detailed needs, identifying vulnerable groups, and working on standardizing these kits for future distributions.

In collaboration with local authorities, the "Safe Water: Healthy Lives" campaign was launched on September 29. Targeting communities in Derna, Albayda, and Sousa, the campaign aims to promote preventive measures against waterborne diseases, emphasize good hygiene practices, and prioritize the safety of Unaccompanied and Separated Children (UASC). To date, the campaign has reached 188,446 individuals through mass media, with 12,000 through direct interactions and 176,450 via expansive mass media channels²³. The extensively damaged infrastructure needs urgent attention to prevent further contamination and potential spread of communicable diseases. Priorities include cleaning boreholes, rehabilitating wastewater drainage, and improving WASH facilities in public buildings, particularly schools. It's vital to strengthen the region's water

¹⁹ <https://reliefweb.int/report/libya/libya-flood-response-situation-report-11-october-2023>

²⁰ <https://www.unicef.org/media/146886/file/Libya-Humanitarian-SitRep-Storm-DANIEL-and-Floods-22-October-2023.pdf>

²¹ <https://reliefweb.int/report/libya/libya-flood-response-situation-report-11-october-2023>

²² <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-10-october-2023-enar> ; <https://reliefweb.int/report/libya/libya-flood-response-situation-report-11-october-2023>

²³ <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-10-october-2023-enar>

and sanitation maintenance capacities and manpower. Proper sanitation facilities and hygiene promotion are essential to prevent waterborne diseases. Additionally, there's a need to subsidize water costs or distribute safe water to remote areas²⁴.

In addition to the primary needs already discussed, there are several additional humanitarian concerns that, while not classified as top priorities, remain critical in comprehend the needs of the affected population.

A critical area requiring our attention is the need for food security. This extends beyond providing immediate relief and involves two key aspects: addressing current challenges such as logistical hurdles and market disruptions. This involves efficiently distributing food to those in immediate need. Equally important is the long-term stability of food supply, achieved by supporting and restoring local markets. This effort is vital for sustainable development and helping communities become self-reliant.

Alongside, the protection of vulnerable groups is an area that urgently needs addressing. There is a pressing need to incorporate protective measures against sexual and gender-based violence (SGBV) and exploitation within our wider humanitarian operations. Collaborations with organizations offering mental health support, legal assistance, and other essential services are crucial. These services are indispensable for the well-being and safety of vulnerable populations, particularly children, women, and marginalized communities²⁵.

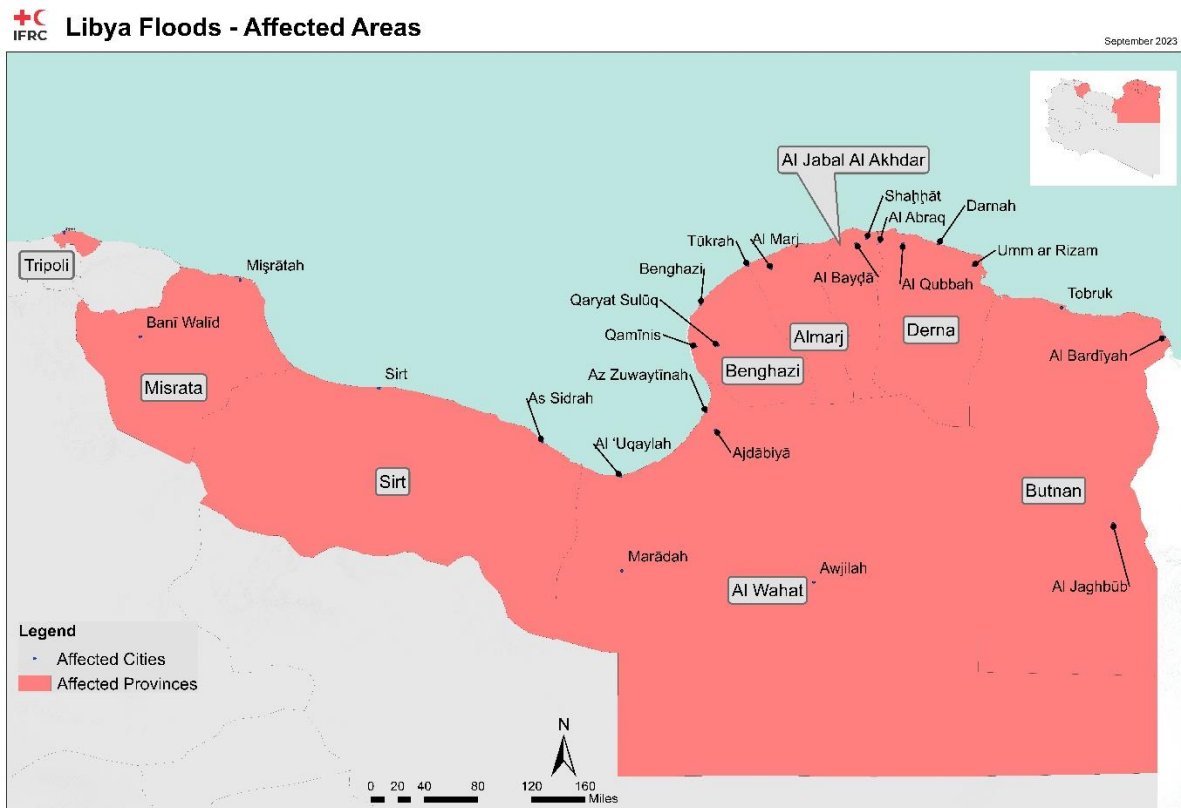
3. Priority geographic areas

Libya benefits from a strategic position in between the Maghreb and Mashrek, Africa and Europe and at the intersection of two seas. One of water in the Mediterranean and one of sand in the Sahara. The country is also the beneficiary of strategic advantages. It is considered to be the gateway to North Africa with 1900 km of Mediterranean coast. It's central position on this coast makes it an important relay between the Western Arab world the Middle East. Moreover, it constitutes the first point of passage of Europeans to the North West of the African continent. Situated in the middle of the Old World, it is one of the crossroads of communication between the Mediterranean and Sahel Africa. Libya has a surface of 1 759 540 km, the fourth largest of any African country after Algeria, the Sudan and the Congo. It is limited by the Mediterranean in the north at the 33rd parallel and by the Tropic of Cancer, south of the oasis of Kufra, near the 20th parallel. Libya is in the middle of North Africa, between the 9th and 25th East Meridian. Has traditionally been split into three geographical entities. First, Tripolitania where one can find Tripoli, the current political and economic capital. As it benefits from a port whose commercial and strategic importance go back to antiquity, it has prospered from the favours of the fallen regime. Around the town, the vast agricultural plain of the Juffara, dominated by the long and high plateaus of Djebel Nefousa (mountain range in the West, dominated by the Berbers). In the south, the region stops in the outskirts of the important border town of Ghadames. Then, Cyrenaica occupies the whole western part of the country²⁶.

²⁴ <https://reliefweb.int/report/libya/libya-hurricane-daniel-situation-report-5-12102023>

²⁵ <https://reliefweb.int/report/libya/libya-hurricane-daniel-situation-report-5-12102023>

²⁶ <https://www.frstrategie.org/web/documents/programmes/observatoire-du-monde-arabo-musulman-et-du-sahel/publications/en/14.pdf>



The maps used do not imply the expression of any opinion on part of the International Federation of Red Cross and Red Crescent Societies or National Societies concerning the legal status of a territory or of its authorities.

Figure 1 - Affected geographical areas

<p>Priority area #1</p> <p>Derna</p>	<p>Priority area #2</p> <p>Jabal al Akhdar</p>	<p>Priority area #3</p> <p>Al-Marj</p>
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The multi-sectoral needs assessment will encompass areas where LRCs is currently operational and those it is actively striving to reach, including Derna, Jabal al Akhdar, Al-Marj districts.

4. Priority affected groups

<p>Affected group #1</p> <p>Migrants and IDPs</p>	<p>Affected group #2</p> <p>Children</p>	<p>Affected group #3</p> <p>Women and girls</p>
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Priority affected groups #1 – Migrants, refugees, IDPs

Drawing from the "Settlement-Based Assessment (SBA) - March 2023: Libya – Derna, Baladiya" report issued in March 2023 by REACH, we gain a detailed understanding of the challenges faced by IDPs in Libya. Recognizing the already challenging conditions they faced pre-disaster, and based on the new data, we can delineate a careful analysis of their current vulnerabilities and needs in the aftermath of the floods.

The plight of Internally Displaced Persons (IDPs) in Libya is underscored by a myriad of vulnerabilities, exacerbated in the wake of the devastating floods. The sudden loss of homes, livelihoods, and community infrastructure leaves them in a state of profound uncertainty. The ability to access basic necessities such as food, water, and healthcare is often compromised. IDPs grapple with the emotional trauma of displacement,

a loss of identity, and the disruption of social networks and support systems. This transitional and unstable period makes them particularly vulnerable to a range of risks, from health hazards to socio-economic challenges and security threats.

Among these vulnerable groups, migrant women endure a heightened level of adversity, facing dual discrimination grounded in both their gender and displaced status. The fragility of their situation is magnified by societal norms and expectations, where women often find themselves at the intersection of gender-based discrimination and the myriad challenges that come with being an IDP. They navigate a precarious landscape, where the struggle for basic necessities is compounded by the systemic and societal barriers ingrained in their gender roles.

Furthermore, the lack of legal status or documentation, which is either inaccessible or lost amidst the chaos of disaster, impedes their ability to access essential services offered to the broader population. The absence of these critical papers not only renders them invisible in the eyes of the system but also amplifies their vulnerability, exacerbating their exclusion and the adversities they confront.

Migrants in Libya, many of whom were awaiting an opportunity to cross the Mediterranean to European shores, find themselves in an even more precarious position when they become IDPs. Already on a perilous journey, the disaster compounds their vulnerabilities. Many of these migrants had already faced detention, exploitation, and abuse in their attempt to reach the Mediterranean. With the disaster, they not only face the immediate threats posed to IDPs but also challenges unique to their status as migrants.

Migrant women, in particular, face an intersection of vulnerabilities that magnifies their risk. Their status as women, migrants, and now IDPs exposes them to multiple layers of discrimination and threat. The patriarchal structures and cultural norms of many societies, including some in Libya, may further restrict their mobility, access to resources, and decision-making power. This tri-fold vulnerability – as women, migrants, and IDPs – leaves them exposed to a heightened risk of gender-based violence, exploitation, and health challenges.

Cultural norms can sometimes stigmatize and isolate them, making it difficult to access support systems or speak out against abuses. Their unique needs, ranging from reproductive health to protection from gender-specific threats, often go unaddressed in the broader relief efforts. The lack of female-focused spaces or services in temporary shelters or camps can exacerbate their exposure to risks.²⁷

As per the Multi-Thematic Rapid Needs Assessment (MTRNA) from UNDAC and REACH, it has been observed that:

While the exact number of unaccompanied and separated children remains unknown at the time of writing, Key Informants (KIs) in 60% of assessed muhallas indicated that these children were in particular need of assistance due to the crisis.

Main challenges faced by people in displacement sites include:

- 55% stating that the number of shelters is insufficient.
- 50% reporting a lack of privacy inside the shelter due to missing partitions or doors.
- 43% believing that the shelters are too small, lacking enough space for entire households.

In terms of shelter arrangements:

- 88% were hosted by friends or relatives.
- 70% sought collective shelter in public buildings, such as schools or mosques.
- 32% managed to find accommodation in hotels²⁸.

²⁷ https://repository.impact-initiatives.org/document/reach/0e9f2656/REACH_LBY_Situation-Overview_SBA-Derna_March-2023_EN-V5-1.pdf

²⁸ <https://reliefweb.int/report/libya/libya-flood-response-humanitarian-update-3-october-2023-enar>

Priority affected groups #2 – Children²⁹

In the aftermath of the recent catastrophic events in Libya, children find themselves at the crossroads of profound challenges, as outlined in the UNICEF Libya Humanitarian Situation Report, on the 23th October 2023.

The plight of children in the wake of natural disasters and displacement crises, such as the one caused by Storm Daniel, paints a complex and distressing picture.

Complicating matters further, the stress and trauma experienced by parents are adversely affecting their ability to deal with their children's changed attitudes and behaviors. This cycle of stress and trauma within families is a significant concern, as it can exacerbate existing tensions and hinder effective coping mechanisms. Additionally, many of these children have developed a heightened sensitivity and anxiety towards environmental factors like rain and thunder, a clear indication of trauma associated with their memories of the flood crisis.

Another critical issue stemming from the crisis is the loss of essential documentation. Many displaced families have lost important documents such as identity cards and birth certificates. This loss is not just a matter of paperwork; it significantly hinders their access to basic services, social protection, and legal aid, further complicating their already precarious situation.

Among the most vulnerable are unaccompanied and separated children (UASC), who face increased risks of exploitation and abuse. The situation calls for immediate and coordinated efforts to protect these children. Organizations like UNICEF are actively working to build the capacity of social welfare systems to better identify, register, and support UASC. However, the challenge is daunting, and the need for specialized child protection support is urgent.

In addition, the educational sector has not been spared by the crisis. The floods have led to the closure and damage of numerous schools, disrupting the education of countless children. Many schools have been converted into shelters for IDPs, further delaying the start of the academic year and hindering the resumption of regular schooling. The situation is especially challenging for girls, who may face additional barriers in accessing education.

The need for swift and effective action to rehabilitate schools and provide necessary support to educators is crucial. The role of schools extends beyond education; they often serve as entry points for other essential services for children and their families. They are essential hubs providing health checks, immunizations, food, protection, and crucial psychosocial support. With schools closed or repurposed as shelters, children lose access to these vital services. The ongoing crisis, therefore, not only disrupts their education but also deprives them of critical health and support services. This deprivation can have long-term health and psychological ramifications, impacting their development and future prospects. As such, the prompt rehabilitation and reopening of flood-damaged schools are vital steps in addressing the myriad challenges these children face.

Prioritizing mental health support, education, and protection against exploitation and abuse is essential, especially for displaced children and their families.

Priority affected groups #3 – Lone women, widows and female head of household

The recent floods in Libya have exacerbated existing societal vulnerabilities, especially affecting women and girls. These groups were already facing significant challenges before the disaster, including the threats of climate change, natural disasters, and the pervasive risk of gender-based violence (GBV). The situation is further complicated by a culture of under-reporting GBV, often due to fears of reprisal and the lack of legal

²⁹ <https://reliefweb.int/report/libya/unicef-libya-humanitarian-situation-report-no-5-storm-daniel-and-floods-22-october-2023>

protection. Moreover, women's access to essential health and GBV services, especially in remote areas, remains limited, further marginalizing them.

In this context, the disaster has brought to the forefront the need for a comprehensive strategy that encompasses risk reduction, climate adaptation, and recovery. This strategy must address not only the immediate threats posed by natural disasters but also the unique socio-cultural challenges faced by women and girls in Libya. Women who have become widows due to the disaster face immense grief and the complex task of reintegrating into society and managing their lives independently. Their struggles are not limited to psychological burdens but extend to tangible daily challenges such as accessing healthcare, securing livelihoods, and maintaining personal freedom and safety, which are often compromised due to heightened gender vulnerability. The emotional strain of these circumstances, combined with the difficulties brought about by the disaster, can have deep psychological impacts. In a society where women often face additional barriers to participating actively in community life, these challenges are further magnified³⁰.

Households led by lone women, who might already be economically disadvantaged, find their struggles intensified by the disaster. They face additional strain on their limited resources, and accessing essential reproductive healthcare becomes even more challenging due to resource scarcity. These women, as heads of households, are also exposed to increased risks, including gender-based violence and exploitation, particularly when seeking aid.

For lone children, especially girls who have lost their family members, the situation is dire. Without familial protection, they face multiple vulnerabilities, ranging from the risk of exploitation and trafficking to barriers in accessing education. The emotional trauma of losing family members, combined with the challenge of navigating a disaster-stricken environment, highlights the need for specialized support.

Relief initiatives must be tailored to address the specific needs of these groups. It is essential to provide them not just with supplies but with resources that cater to their unique challenges. Ensuring their inclusion in aid programs, access to basic services, and active participation in decision-making processes is crucial. These efforts should aim to protect their rights, provide psychosocial support, and empower them to become active agents in their recovery and the rebuilding of their communities³¹.

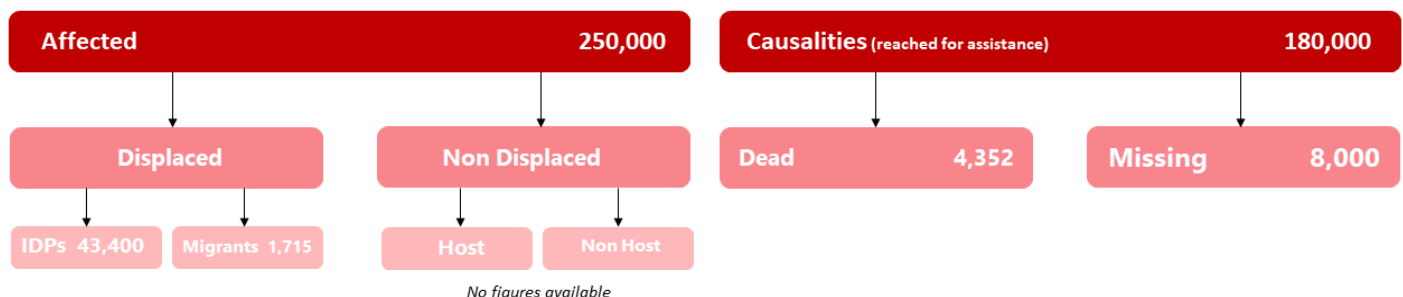
³⁰ <https://reliefweb.int/report/libya/libya-humanitarian-overview-2023-december-2022>

³¹ <https://reliefweb.int/report/libya/unfpa-libya-flood-response-flash-appeal-30-september-2023>

CRISIS SCOPE AND SCALE

1. Humanitarian Profile

The storm Daniel in Libya has unveiled deep-rooted societal vulnerabilities, intensifying the challenges faced by the already marginalized communities. The geographical scope of the storm's impact spans across various regions, with the most affected areas still being assessed. Prior to this storm, Libya was already grappling with significant societal challenges, especially concerning women and girls. The storm has further exacerbated these issues. **The agriculture sector, a primary source of livelihood for many, has been severely impacted by the storm.** With the storm hitting just before the harvesting season, there's been significant crop damage, threatening food security for many households. Infrastructure, including roads, has been damaged, making accessibility to some villages challenging. Physical impacts on irrigation systems, schools, hospitals, electric poles, and vehicles have hindered the provision of adequate support to the affected population. **Disruptions in telecommunication systems and damage to water supply infrastructure have increased the risk of daily water consumption shortages**, affecting the sanitation and well-being of the people in the affected areas. The number of affected individuals is substantial, with precise figures still being collated. **Among the affected, vulnerable groups, especially women and girls, face heightened challenges. The storm has further limited their access to essential health and GBV services, especially in areas where service locations have been damaged or are hard to reach.** The situation is particularly dire for children under 5 years old and other vulnerable groups, who now face increased risks of malnutrition and other health challenges due to the compounded effects of the storm and pre-existing societal issues.



OCHA, Libya: Flood Response Humanitarian as of November 2023

2. Underlying factors (Drivers/aggravating factors)



1. Lack of climate resilience

As per the INFORM Risk Index 2023, Libya is the 22nd most impacted country globally by disasters and climate change, including droughts, irregular rainfall, floods, and sandstorms. The previous conflict has heightened Libya's susceptibility to climate variability, adversely affecting agricultural productivity, and consequently the livelihoods, food, and economic security of many, especially vulnerable groups like migrants. Compounding this issue is the severe water stress due to rising temperatures and inadequate water policy, leading to

competition over water resources and threatening agriculture, which sustains a significant portion of the southern population. The increasing temperatures also challenge the stabilization of the electrical grid by boosting demand and hampering production.³²

Notably, about 70% of Libya's population resides in coastal areas, making them particularly susceptible to the climate hazards³³.

2. Lack of sustainable infrastructure and management³⁴

The catastrophe of Storm Daniel in eastern Libya, exemplified by the failure of dams and the extensive flooding in Derna, has starkly illustrated the consequences of poor infrastructure management. The lack of well-maintained and resilient infrastructure, a result of years of neglect and inadequate investment, left the country ill-prepared for such a disaster.

Additionally, Libya's weak coping capacities, are a critical concern in a country where approximately 95% of the land is desert and where the most densely populated areas are already grappling with severe land degradation and desertification. The combined effects of water scarcity, inadequate agricultural practices, and the overuse of water resources contribute to soil erosion and further desertification, severely impacting productive sectors, food security and any future capacity of the soil to respond to heavy rains and floods.

3. Lack of Early Warning Systems³⁵

The absence of functional weather services and early warning systems, such as evacuation plans, played a significant role in the devastating impact of the flood event caused by Storm Daniel. The lack of these systems means that residents were likely unprepared and unaware of the impending disaster, exacerbating its effects.

The aftermath of Storm Daniel in Libya is not just the result of a singular climatic event but is compounded by a series of pre-existing vulnerabilities and factors. Addressing the immediate needs of the affected population requires an understanding of this complex reality, ensuring that both immediate relief and long-term resilience-building measures are implemented effectively.

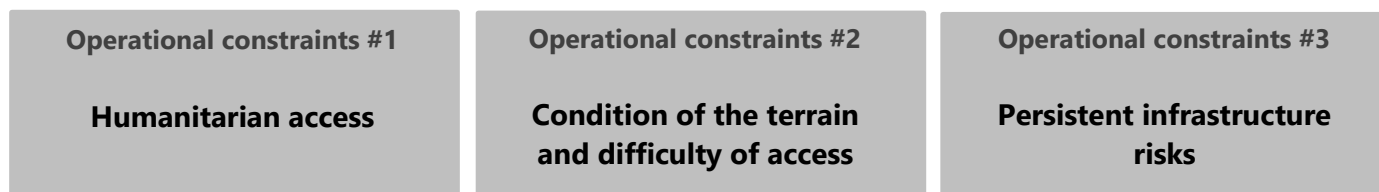
³² <https://crisisresponse.iom.int/response/libya-crisis-response-plan-2023#:~:text=Objective%0A%0ASave%20lives%20and%20respond%20to,through%20humanitarian%20assistance%20and%20protection>

³³ <https://reliefweb.int/report/libya/unicef-libya-humanitarian-situation-report-no-1-storm-daniel-and-floods-14-september-2023>

³⁴ <https://www.ajol.info/index.php/ajb/article/view/96799>, <https://dailybrief.oxan.com/Analysis/DB273883/Poor-basic-infrastructure-will-plague-Libya-for-years>

³⁵ <https://www.carbonbrief.org/qa-how-are-libyas-medicane-fuelled-floods-linked-to-climate-change/>

OPERATIONAL CONSTRAINTS



Humanitarian access: A major challenge regards the limited operational presence of humanitarian actors in Libya. This limitation led to significant disparities in response efforts across different municipalities. There was a noted need to expand the humanitarian footprint in areas that are difficult to reach.

Condition of the terrain and difficulty of access: Although a new route has been constructed to connect previously disconnected areas, it does not fully mitigate transportation issues. The terrain is rugged and difficult, and many vehicles have been rendered inoperable due to flood damage. Moreover, the lack of public transport services in Libya intensifies these challenges. Additionally, the new route's vulnerability to becoming impassable during rainy seasons, especially given its valley location, further complicates the delivery of humanitarian and healthcare services to those in need in the upcoming months, potentially isolating communities when they are most in need of assistance.³⁶

Persistent infrastructure risks: Despite ongoing efforts to restore and repair infrastructure damaged by Storm Daniel in Libya, it remains essential to consider the persistent risks associated with these damages. The structural integrity of buildings, roads, and bridges significantly compromised by the storm continues to pose a safety threat. This risk is not only a concern for the immediate term but also for the future, as weakened structures may be more susceptible to collapse or further damage with the worsening of climatic conditions due to the rainy season.

PRE-CRISIS OVERVIEW IN AFFECTED AREAS

Pre-crisis humanitarian situation

In 2022, Libya experienced a significant shift in its humanitarian landscape. The nation, which had been grappling with political upheavals and security threats, began to witness a more stable and hopeful environment for its citizens. This change was a beacon of hope, especially when contrasted against the backdrop of the preceding tumultuous years. **One of the most important factors contributing to this improvement was the unwavering commitment to the ceasefire agreement reached in October 2020.** This agreement, which was brokered with the hopes of fostering peace and stability, played a crucial role in shaping the humanitarian conditions in the country. Its impact was most profoundly felt in the substantial decrease in the number of Internally Displaced Persons (IDPs). From a staggering 316,000 IDPs in October 2020, the figure plummeted to 134,000 by August 2022. This 58% reduction is a testament to the tangible benefits of sustained peace efforts. The year 2022 started with a change in the political timetable, as the presidential and parliamentary elections originally planned for December 2021 were rescheduled. **The global COVID-19 pandemic further strained Libya's already fragile public health system.** Although there was a decline in COVID-19 cases by April 2022, the threat remained significant due to low vaccination rates and limited testing capacities, especially in the eastern and southern regions. Furthermore, the migrant situation in Libya continued to be a pressing concern. Reports indicated that by the end of 2022, approximately 679,974 migrants resided in Libya, including nearly 75,000 children. Their challenges were further exacerbated by

³⁶ <https://unosat.org/products/3670>

limited access to essential services and basic needs³⁷.

Mixed migration

By 2022, there was a marked increase in the number of asylum-seekers and refugees registered with UNHCR in Libya. This rise indicates a growing need for international protection and assistance within the country.

Migrants in Libya continued to grapple with numerous challenges. Many of these challenges were intrinsically linked to their status in the country, and the vulnerable situations they often found themselves in.

UNHCR with its projects aimed to integrate migrants into the Libyan workforce and ensure their rights and safety. For instance, through partner organizations, **UNHCR provided pre-paid cards to internally displaced Libyan families, which could be used in place of cash to purchase basic items in local stores, addressing the liquidity problem in the country.** Additionally, vouchers were provided to refugee and asylum-seeker families, allowing them to purchase essential items, including food, water, hygiene products, and medicine from identified suppliers.

Infrastructure vulnerabilities

Al-Bayda, located in the Al Jabal Al Akhdar district, had infrastructural challenges that made it susceptible to environmental threats like floods and landslides. Before the onset of Storm Daniel, 11% of respondents in a 2022 REACH Multi-Sector Needs Assessment (MSNA) reported rainwater intrusion into their shelters, leading to flooding and structural damage. This vulnerability was not just a result of poor construction but also the city's geographical position. Al-Bayda is situated in a low-lying area, making it especially prone to flooding. The soil, parched and cracked after extended dry periods, was ill-equipped to absorb sudden large volumes of water. This infrastructural and geographical vulnerability emphasized the urgent need for improved urban planning and resilient construction practices in the region.

The healthcare system in Al Jabal Al Akhdar was already under significant strain. Out of the 51-primary healthcare (PHC) facilities in Al-Bayda and Shahat cities, 15 were non-operational. This lack of operational healthcare facilities was a glaring indication of the need for healthcare infrastructure development and resource allocation.

Water challenges were a persistent issue in Al-Bayda even before the storm. With 47% of households reporting unmet WASH-related needs, the city's water infrastructure was evidently lacking. Previous minor flooding events had likely contaminated water sources, increasing the dependence on bottled water. The city's water infrastructure was in dire need of safeguarding and improvement to prevent such crises in the future.

Regular power outages were a common issue faced by residents in Al Jabal Al Akhdar before the storm. Such disruptions had wide-ranging implications, affecting essential services like water supply systems and healthcare facilities. The need for a robust and reliable power infrastructure was evident, given the region's susceptibility to environmental disasters. Furthermore, the city of Derna, which was severely affected by the floods, was located at the end of a valley known as the Wadi Derna. These valleys, typically dry except during the rainy season, became torrents of water during heavy rainfall, further highlighting the region's infrastructural vulnerabilities³⁸.

Health, WASH, and Nutrition

Buildings in Al-Bayda, one of the major cities in Al Jabal Al Akhdar district, were not constructed to endure environmental hazards such as floods and landslides. Prior to Storm Daniel, 11% of respondents in a 2022 REACH Multi-Sector Needs Assessment (MSNA) indicated that rainwater leaked into their shelters, causing

³⁷ <https://reliefweb.int/report/libya/unicef-libya-end-year-humanitarian-situation-report-31-december-2022>

³⁸ <https://www.washingtonpost.com/world/2023/09/12/deadly-libya-flooding-cause/>

flooding and damage to walls. Before the flooding caused by Storm Daniel, the healthcare capacity in Al Jabal Al Akhdar was already compromised. Out of the 51 primary healthcare (PHC) facilities in Al-Bayda and Shahat cities, 15 were non-functional.

Al-Bayda city was grappling with water shortages even before the storm, with 47% of households having unmet WASH-related needs. The contamination of water sources after previous floods likely heightened the demand for bottled water and other essential items. This could have led to potential price surges if the demand exceeded the supply. Residents in Al Jabal Al Akhdar were already experiencing regular power outages before the storm. This could have had implications for water supply systems, healthcare facilities, and other essential services that rely on electricity. As of January 2023, there were approximately 2,500 migrants and 100 refugees in the district, and by August, there were 2,420 internally displaced persons (IDPs). These populations might have had specific health, WASH, and nutrition needs, given their vulnerable status³⁹.

³⁹ <https://reliefweb.int/report/libya/acaps-thematic-report-libya-pre-crisis-humanitarian-situation-al-jabal-al-akhdar-district-22-september-2023>

Annex A - data sources

- [ACAPS - Libya Update on the Impact of Storm Daniel in Derna District](#)
- [African Journal of Biotechnology - Research Article](#)
- [Carbon Brief - Libya's Medicanes and Floods](#)
- [Encyclopedia Britannica - Libya Flooding of 2023](#)
- [Fondation pour la Recherche Stratégique - Libya Report](#)
- [IFRC - Libya: Floods - Emergency Appeal n° MDR66003](#)
- [IOM - Libya crisis response plan 2023 \(13 October 2023\)](#)
- [IMPACT Initiatives - REACH Libya Situation Overview \(March 2023\)](#)
- [IMPACT Initiatives - Impacts of the Floods in Libya: Key Findings \(9 October 2023\)](#)
- [Oxford Analytica Daily Brief - Analysis on Libya's Infrastructure \(8 November 2022\)](#)
- [ReliefWeb - ACAPS Thematic Report on Libya's Pre-Crisis Humanitarian Situation \(22 September 2023\)](#)
- [ReliefWeb - Access to Cash and Impact of Liquidity Crisis on Refugees and Migrants in Libya \(June 2018\)](#)
- [ReliefWeb - Libya Flood Response Humanitarian Update \(26 October 2023\)](#)
- [ReliefWeb - Libya Flood Response Humanitarian Update \(10 October 2023\)](#)
- [ReliefWeb - Libya Flood Response Situation Report \(11 October 2023\)](#)
- [ReliefWeb - Libya Flooding Situation Report 5 \(9 October 2023\)](#)
- [ReliefWeb - Libya Floods Disaster Brief \(September 2023\)](#)
- [ReliefWeb - Libya Humanitarian Overview 2023 \(December 2022\)](#)
- [ReliefWeb - Libya Hurricane Daniel Situation Report 5 \(12 October 2023\)](#)
- [ReliefWeb - UNFPA Libya Flood Response Flash Appeal \(30 September 2023\)](#)
- [ReliefWeb - UNICEF Libya End-Year Humanitarian Situation Report \(31 December 2022\)](#)
- [ReliefWeb - UNICEF Libya Humanitarian Situation Report No. 1 \(14 September 2023\)](#)
- [ReliefWeb - UNICEF - Libya Humanitarian Situation Report No. 2 \(21 September 2023\)](#)
- [ReliefWeb - UNICEF Libya Humanitarian Situation Report No. 4 \(5 October 2023\)](#)
- [ReliefWeb - WFP Libya Floods Response \(External Situation Report, 4-11 October 2023\)](#)
- [The Washington Post - Article on Libya Flooding](#)
- [UNICEF - Libya Humanitarian SitRep: Storm Daniel and Floods \(22 October 2023\)](#)
- [UNOSAT - Flood Waters in Libya, Product ID 3687](#)
- [UNOSAT - Flood Waters in Libya, Product ID 3670](#)