

	Percentage of Assessed Sites in Flooding Risk Impacted by Flooding	82%
	Number of Sites in at Risk Areas Assessed	912
	Number of Assessed Sites Affected by Flooding	345
	Percentage of Population Living in Assessed at-risk Sites Directly Impacted by Flooding	26%
	Population in Assessed Sites Affected by Flooding	595,889
	Population in Assessed Sites Directly Impacted by Flooding	157,120

From late November onwards, flooding, heavy wind and rainfall across the Gaza Strip further exacerbated already fragile living conditions for thousands of displaced individuals residing in overcrowded displacement sites. As winter conditions intensified, repeated rainfall, lack of drainage systems, and saturated ground conditions increased the risk of shelter damage, site flooding, and heightened protection concerns for already vulnerable groups. These conditions continue to challenge the coping capacities of displaced households already navigating limited access to essential services.

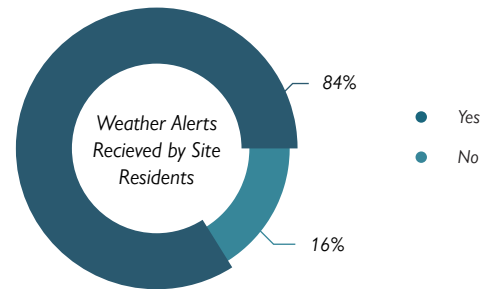
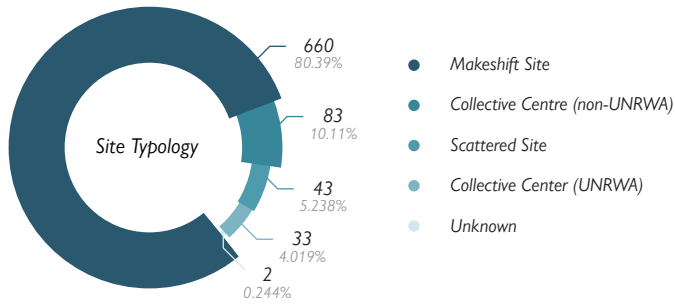
To support intersectoral winterization planning and improved understanding of site level vulnerabilities, the Site Management Cluster (SMC) with IOM NPM team conducted an analysis of the flooding risk across all known sites by assigning site locations to flooding impact zones. These zones were defined using the Flood Risk Map developed jointly by IOM and Acacia Water in December 2024, which applies a weighted analysis of terrain depressions, relative elevation, drainage pathways, and previously recorded inundation areas. The resulting risk layers, particularly the orange and red zones—indicate areas where flooding is more likely to occur.

A total of 912 out of 1,474 displacement sites were identified to be in predicted flood-risk zones. Collectively, these sites were hosting approximately 987,101 individuals. The largest number of at-risk sites were identified in Khan Younis governorate, where over 42% of sites were categorized as flood prone.

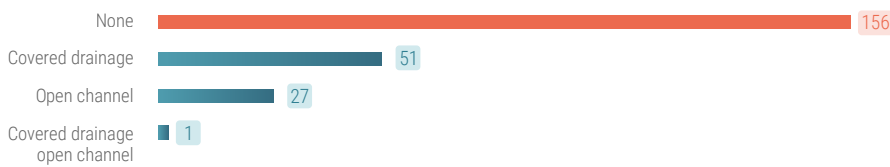
Beginning on 30 November, the Site Management Cluster initiated remote phone-based assessments to verify the conditions in the sites, collect data on required flood risk mitigation actions, and to understand flooding impacts. This exercise was complemented by situational 'alerts' submitted by SMC partners to provide immediate information on acute flooding incidents in sites, as well as information collected through OCHA led community reporting.

The remote calling exercise continued throughout the winter season with a total of 345 sites surveyed, where in sites that fell within a predicted flood-risk zone were contacted to document any incident or impacts of flooding and to inform response. Given the winter and peak rainfall period in Gaza typically extends from November through March, sites were contacted at different points throughout the season, and only a sample of all at-risk sites were reached, these findings do not represent the full extent of flooding across all sites in Gaza. It can be assumed that the total number of affected sites and displaced individuals impacted by flooding is far greater than what has been recorded through this exercise.

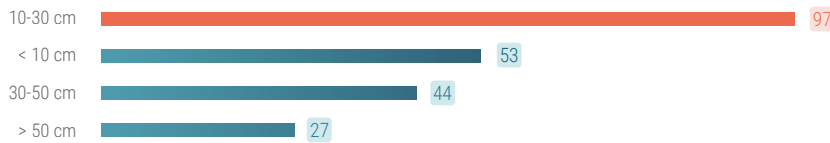
However, this analysis provides a more granular picture of the conditions and risk typical of sites located in flood risk zones. It also provides insights to inform future flood preparedness and response in the Gaza context. As of the latest reporting period, 82% of the at-risk sites that were reached by NPM for survey reported being affected by flooding. The 345 sites reporting flooding collectively host an estimated 595,889 displaced individuals, of whom approximately 157,120 - or over 1 in 4 people - were directly impacted by flooding.



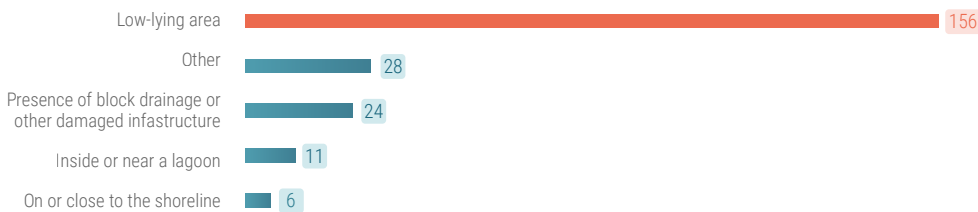
**COUNT OF CLOSEST DRAINAGE SYSTEM FOR SITES IN FLOOD-PRONE AREAS**



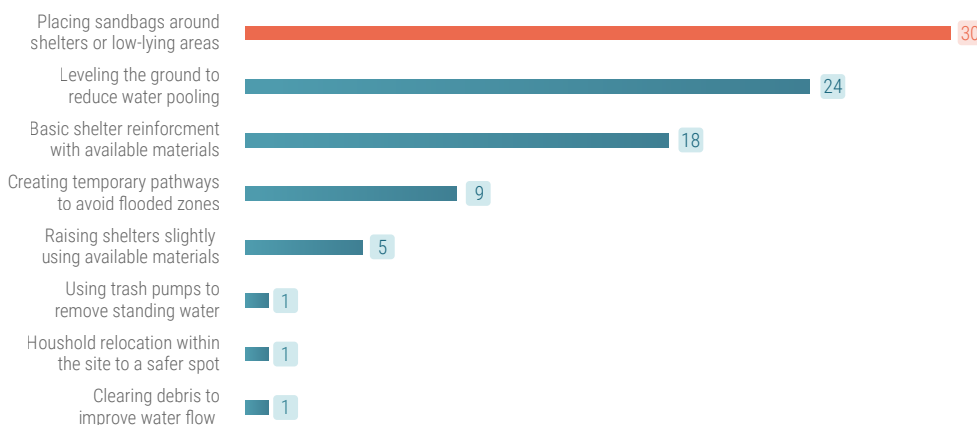
**WATER LEVEL FOR SITES IN FLOOD-PRONE AREAS**



**COUNT OF RISKS FOR SITES IN FLOOD-PRONE AREAS**

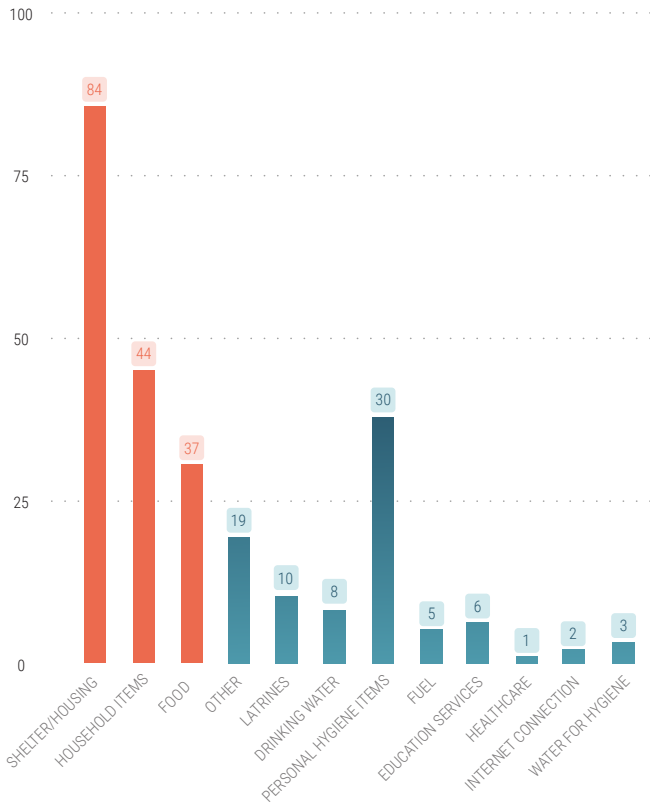


**COUNT OF REQUIRED ACTIONS TO REDUCE OR MITIGATE FLOODING RISKS FOR SITES**



Findings indicate that flooding across displacement sites is primarily driven by low-lying topography, compounded by the absence of functional drainage systems and proximity to lagoon or water-collection areas. In over 66% of assessed sites, no formal drainage infrastructure exists to evacuate accumulated rainwater, significantly increasing exposure to flooding following rainfall events.

Observed water levels ranged from 10 to 30 cm in the majority of affected sites, with 12% of assessed sites reporting more severe flooding, where water levels reached up to 50 cm. These conditions have directly affected shelter integrity and site accessibility. To mitigate flood risks, priority required actions identified through the survey include the placement of sandbags as the most commonly requested mitigation measure at 30%, followed by ground leveling to reduce water pooling at 24% and, reinforcement and elevation of shelters, and the establishment of temporary pathways to maintain access during flooding.



TOP 3 NEEDS PRIORITIES FOR SITES IN FLOOD-PRONE AREAS



In response to the widespread flooding experienced in sites and as identified through this exercise, site management teams coordinated with Shelter, WASH, and Food Security partners to carry out quick-impact site improvement works. Nearly 240,000 flour sacks provided by food security partners have been repurposed by site management teams as sandbags to protect tents, cesspits, and access routes from flooding. In parallel, over 800 site maintenance toolkits have been distributed across 265 sites to support the repair and reinforcement of damaged shelters, protect access routes, and to improve stormwater drainage at the site level.

All findings reflect the most accurate available information collected remotely from across the five governorates of the Gaza Strip; due to dynamic displacement situation, not all sites located in the moderate and high-risk flood zones have been assessed for flooding impacts as of publishing. In addition, SMC assessments are focused on populations living in collective displacement settings; therefore, flooding experienced by households outside of these sites is not reflected in this analysis. Data may also be subject to change due to restricted communication access, limitations on physical access linked to the yellow line, and rapidly evolving conditions at site level.

RECOMMENDATIONS

FLOOD RISK-INFORMED SITE SELECTION AND RECONFIGURATION

Where possible, displacement sites should be established outside of high flood risk zones, informed by systematic flood risk mapping. For sites already located in flood-prone areas, enhanced mitigation works are required. Within sites, shelter placement should avoid low-lying areas, and ground leveling should be carried out to promote drainage and prevent pooling of floodwaters.

SHELTER REINFORCEMENT AND ELEVATION

Shelter fixing materials and targeted technical support should be distributed prior to the winter season to help families secure and, where feasible, elevate their shelters against flood and wind damage.

SITE-LEVEL STORMWATER DRAINAGE

Drainage infrastructure should be improved across sites currently lacking adequate systems. This should be coordinated with WASH partners to address the risk of cesspit overflow and the associated contamination of floodwaters.

PREPOSITIONING OF FLOOD RESPONSE SUPPLIES

Sufficient quantities of sandbags and other flood response materials should be imported into Gaza ahead of winter to support both preventive measures and emergency response operations.

PROTECTION OF SITE ACCESS ROUTES

Roads and pathways within and connecting displacement sites should be improved, maintained and cleared of debris to ensure that residents and service providers can safely enter and exit during the rainy season, including during and after flood events.

COMMUNITY MOBILIZATION AND PREPAREDNESS

Site-level committees should receive training on flood risk mitigation, early warning and alert systems, and emergency procedures. Families should be provided with materials and practical guidance to protect essential belongings from water ingress.

