Flood Hazard - Hydrodynamic Modelling

Shelters Exposed to Floods

Number of Shelters Exposed to Floods per 50m Grid

Camp 21

Camp 21

Camp 21

MYANMAR

BANGLADESH

Bay of Bengal

0   200   400 m

Flood Depth
- Low (0.05 to 0.5m)
- Moderate (0.5 to 1m)
- High (> 1m)
- Camp 21
- Block Boundary
- Roads

Flood Damage to Shelters
- Partially Damaged (0.1 to 1m)
- Fully Damaged (> 1m)
- Camp 21
- Block Boundary
- Roads

Number of Affected Shelters (chart by Block A–E)

Number of Partially or Fully Damaged Shelters
- 0 - 5
- 6 - 15
- 16 - 25
- > 25
- Camp Boundary
- Roads

Description:
This map is designed to assist planners and decision makers identify priority areas for interventions at camp level. It is NOT designed as a stand-alone tool for detailed site planning decisions. Map results need to be ground verified and decisions combined with specific on-site evaluation and appropriate technical expertise. The map does not provide any information about the flow speeds or directions. Results are derived from remote sensing data and computational models; they are not ground proofed and are inherently limited by the quality of the input data and/or model assumptions and therefore hold a degree of uncertainty. The areas outside the flood zones are not necessarily free from any danger.

Flood depths are derived from hydrodynamic flood modelling (ARUP, 2019). They can be seen in full in the Flood Hazard – Hydrodynamic Modelling – 10 Year Average Return Interval v1.0 map (REACH, 2020).

Usage and Limitations:
This map shows modelled water depths from a 10-year average return interval (ARI) pluvial flood event from 24hrs of sustained precipitation. Maps also indicate the maximum flood depths within structures.

Depth Classification
0.05 to 0.5m: low flood depth and partial damage.
0.5 to 1.0m: moderate flood depth and full damage.
1.0m or higher: high flood depth and full damage.

Further details on the modelling can be found in the Summary Report produced by the Natural Hazards Technical Working Group in 2020. Please submit any requests to the ISCG Information Management Unit.

Data Sources:
Background: Hillshade derived from NPM - UAV Orthographic DEM, January 2019
Drone Imagery: IOM NPM, January 2019
Structure Footprint: UNOSAT-REACH, 2019
Hydrodynamic Modelling: ARUP, 2019
Camp Boundary: ISCG, 2020
Camp Footpaths: ISCG, 2019
Coordinate System: WGS 1984 UTM Zone 46N

Disclaimer:
Data, designations and boundaries contained on this map are not warranted to be error-free and do not imply acceptance by REACH.