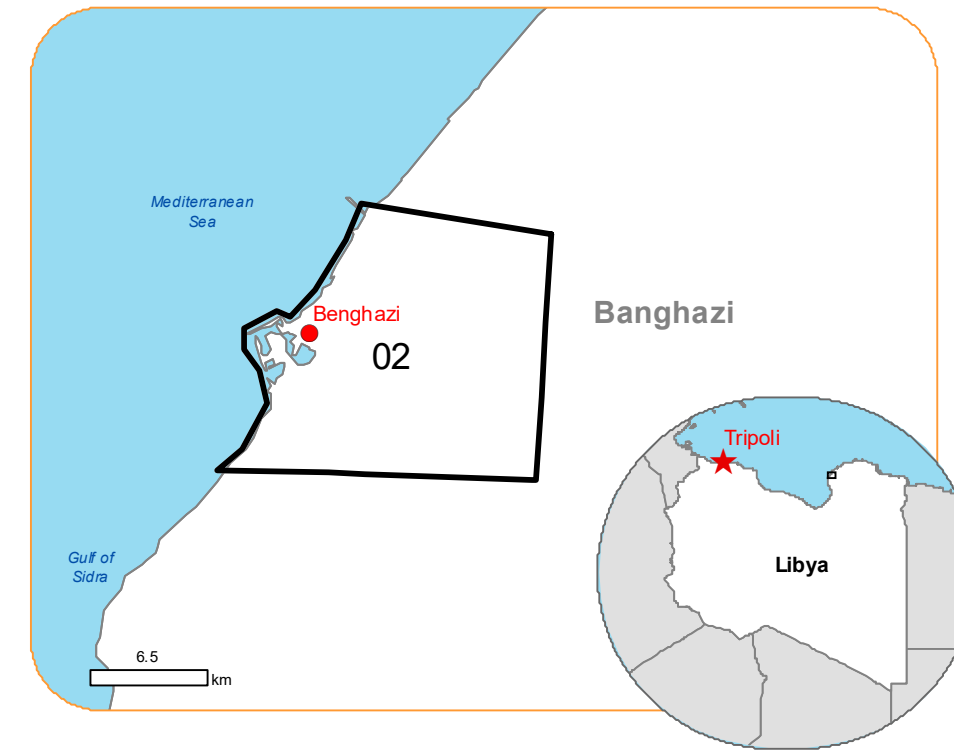


Situation as of 13/09/2023 09:15 UTC
Grading - Overview map 01



Flooded area 66.8 ha
 Flood trace 1,795.8 ha
 Potentially affected population ~ 41000

Affected Built-up and Transportations

Road 81.1 km
 Built-Up 13,886 No.

General Information	Placenames
Area of Interest	Placename
Crisis Information	Hydrography
Flooded Area	Stream
Flood trace	Lake
Built-Up Grading	
Residential Building, Possibly damaged	
Residential Building, Damaged	
Non-residential Building, Possibly damaged	
Non residential Building, Damaged	
Transportation Grading	
Main road, No visible damage	
Track, No visible damage	
Local road, No visible damage	
Road, Damaged	
Road, Possibly damaged	
Highway, No visible damage	
Airfield and Heliport, No visible damage	
Facilities Grading	
Possibly damaged	

Event:
On the 10 September 2023, Mediterranean storm Daniel caused devastating floods in Libya, sweeping away entire neighborhoods in multiple coastal towns in the North East of the country. It also caused the destruction of two dams upstream of Derna town, triggering a wave of flash floods that hit the heart of the city, with massive destruction to the buildings and all the bridges on Derna valley. As many as 2,000 people were feared dead, according to one of the country's leaders. Copernicus EMS Rapid Mapping is requested to provide flood delineation and damage assessment emergency mapping.

Data sources and analysis: Pre-event image: ESRI World Imagery © DigitalGlobe (acquired on 08/06/2022, resolution 1.0 m).
Post-event image: Pleiades-1A/B © CNES (2023), distributed by Airbus DS (acquired on 13/09/2023 at 09:15 UTC, resolution 0.5 m). This image is used as background image.
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Base vector layers: OpenStreetMap © OpenStreetMap contributors (current year), Wikimapia.org, GeoNames 2015, Global Administrative Areas (2012), refined by the producer, Globe Land 30 (2010), Copernicus Global Land Service: Land Cover (2019).
Inset maps: JRC 2013, Natural Earth 2012, GeoNames 2015.

Population data: GHS Population Grid © European Commission, 2023
https://ghsl.jrc.ec.europa.eu/ghs_pop2023.php
Digital Elevation Model: SRTM (30 m) (NASA/USGS).

The thematic layer has been derived from post-event satellite image by means of visual interpretation.

Map produced by Telespazio Iberica released by e-GEOS on the 18/09/2023.

Consequences within the AOI						
	Unit of measurement		Destroyed	Damaged	Possibly damaged*	Total affected**
Flooded area	ha					66.8
Flood trace	ha					1,795.8
Estimated population	Number of inhabitants					~ 41,000
Built-up						~ 580,000
Residential Buildings	No.	0	2,856	10,994	13,850	75,463
Office buildings	No.	0	0	0	0	5
Institutional	No.	0	0	1	1	1
Police station	No.	0	0	0	0	2
Fire station	No.	0	0	0	0	1
Wholesale and retail trade buildings	No.	0	0	2	2	8
Industrial buildings	No.	0	0	1	1	11
Reservoirs, silos and warehouses	No.	0	3	0	3	3
School, university and research buildings	No.	0	0	0	0	9
Hospital or institutional care buildings	No.	0	0	0	0	6
Other non-residential buildings	No.	0	11	10	21	81
Buildings used as places of worship and for religious activities	No.	0	1	3	4	10
Other buildings not elsewhere classified	No.	0	0	1	1	3
Building point	No.	0	0	2	2	113
Hotel buildings	No.	0	0	0	0	10
Communication buildings, stations, terminals and associated building	No.	0	0	1	1	4
Transportation						
Helipad	ha	0.0	0.0	0.0	0.0	0.2
Bridges and elevated highways	km	0.0	0.0	0.0	0.0	0.4
Highways	km	0.0	0.0	0.0	0.0	122.8
Primary Road	km	0.0	0.0	0.3	0.3	172.4
Secondary Road	km	0.0	0.0	0.0	0.0	98.4
Local Road	km	0.0	1.9	78.6	80.5	2,192.4
Cart Track	km	0.0	0.0	0.1	0.1	59.9
No Driveway	km	0.0	0.0	0.3	0.3	19.9
Facilities						
Breakwater	ha	0.0	0.0	0.0	0.0	11.0
Sport and recreation constructions	ha	0.0	0.0	1.5	1.5	299.5
Other civil engineering works not elsewhere classified	ha	0.0	0.0	0.0	0.0	0.0
Long-distance pipelines, communication and electricity lines	km	0.0	0.0	0.0	0.0	64.7
Land use						
Other	ha				972.3	14,595.1
Open spaces with little or no vegetation	ha				379.2	2,177.4
Heterogeneous agricultural areas	ha				374.7	3,216.3
Shrub and/or herbaceous vegetation association	ha				135.4	1,271.6
Forests	ha				0.9	26.9
* Presence of damage proxies and proximity with destroyed/damaged asset						
** Sum of all damage classes						

Disclaimer:

Full disclaimer and other helpful information available in the online manual:

<https://emergency.copernicus.eu/mapping/ems/online-manual-rapid-mapping-products>

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Data access:

All data displayed on the map(s), as well as Land Use - Land Cover layer(s), are available in the Crisis Information Package and the Base Layer Package (for reference data).

The table above is available in editable format in the Crisis Information Package.

All products and data are also available for download on the portal.

Access to the portal

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