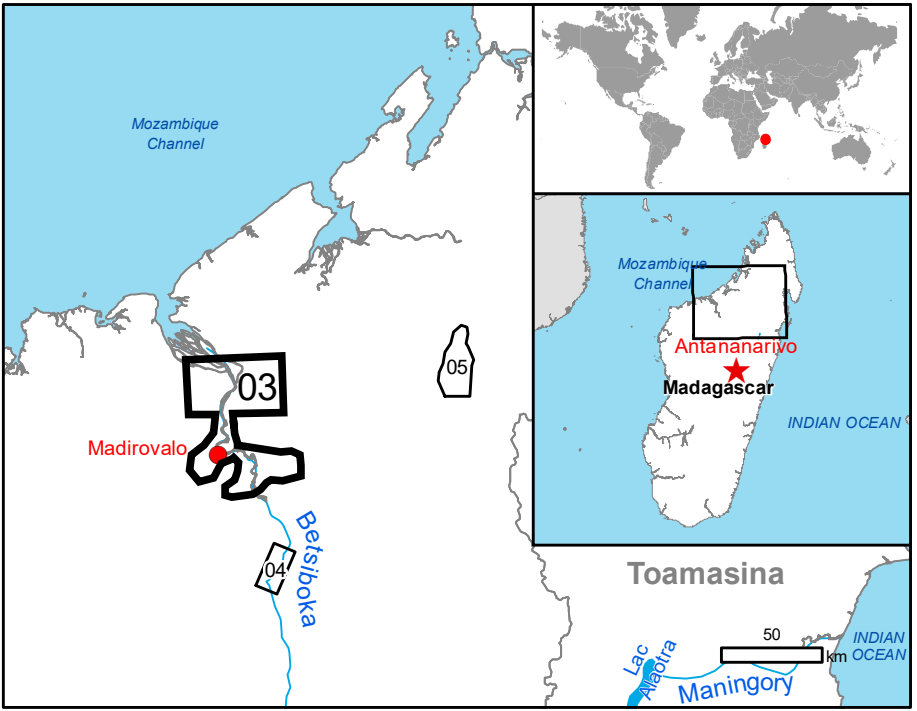


GLIDE number: FL-2020-000019-MDG Activation ID: EMSR424  
Int. Charter call ID: 741 Product N.: 03MADIROVALO, v2

## Madirovalo - MADAGASCAR

### Flood - Situation as of 08/02/2020

#### Delineation - Overview map 01



#### Cartographic Information

1:130000 Full color A1, 200 dpi resolution

0 3.25 6.5 13 km

Grid: WGS 1984 UTM Zone 38S map coordinate system  
Tick marks: WGS 84 geographical coordinate system

#### Legend

Crisis Information	Built-Up Area	Transportation
Flooded Area (08/02/2020 07:12)	Residential	Primary Road
Flood Trace (08/02/2020 07:12)	School, university and research	Local Road
Area of Interest	Hospital or institutional care	Cart Track
Not Analysed		
General Information	Hydrography	
Area of Interest	River	
Not Analysed	Stream	
Placenames	Lake	
Placename		

Consequences within the AOI			
		Unit of measurement	Affected / Total in AOI
Flooded area		ha	1022.9 / 10877.5
Flooded trace		ha	948.0 / 9558.0
Estimated population		Number of inhabitants	24019 / 226967
Settlements	Residential	No.	0 / 4
	School, university and research	No.	0 / 1
	Hospital or institutional care	No.	0 / 7
Transportation	Airfield runway	No.	0.0 / 35.9
	Primary Road	km	2.6 / 133.3
	Local Road	km	67.8 / 746.3
	Cart Track	No.	0 / 2.0
Facilities	Dam	No.	0 / 2.0

#### Map Information

Heavy rainfall and flooding caused by a tropical disturbance have affected nearly 107,000 people, including more than 16,000 displaced, and caused at least 31 deaths in Madagascar. At least seven regions in the north of the country have been affected, with Boeny, Sofia and Alaotra Mangoro hardest hit. The Copernicus EMS Rapid Mapping has been triggered by the International Charter.

The present map shows the flood delineation in the area of Madirovalo (Madagascar). The thematic layer has been derived from post-event satellite image by means of visual interpretation. "Not analysed" indicates an area that could not be analysed in any of the post-event images. The estimated geometric accuracy (RMSE) is 20 m or better, from native positional accuracy of the background satellite image.

#### Relevant date records (UTC)

Event	28/01/2020 08:00	Situation as of	08/02/2020 07:12
Activation	30/01/2020 12:35	Map production	12/02/2020

#### Data sources

Pre-event image: Sentinel-2B (2019) (acquired on 05/12/2019 at 07:11 UTC, GSD 10 m, approx. 30% cloud coverage in AOI, 2.8° off-nadir angle) provided under COPERNICUS by the European Union and ESA.

Post-event image: Sentinel-2A (2020) (acquired on 08/02/2020 at 07:12 UTC, GSD 10 m, approx. 5% cloud coverage in AOI, 2.8° off-nadir angle) provided by International Charter (call ID 741), all rights reserved.

Base vector layers: OpenStreetMap © OpenStreetMap contributors, Wikimapia.org, GeoNames 2015, Corine Land Cover (CLC) 2012, Global Administrative Areas (2012), refined by the producer.

Inset maps: JRC 2013, Natural Earth 2012, GeoNames 2013.

Population data: GHS Population Grid © European Commission, 2015  
[https://data.europa.eu/89n/jrc-ghsl-ghs\\_pop\\_gpw4\\_globe\\_r2015a](https://data.europa.eu/89n/jrc-ghsl-ghs_pop_gpw4_globe_r2015a).

Digital Elevation Model: SRTM (90 m) (NASA/USGS).

#### Disclaimer

Products elaborated in this Copernicus EMS Rapid Mapping activity are realized to the best of our ability, within a very short time frame, optimising the available data and information. All geographic information has limitations due to scale, resolution, date and interpretation of the original sources. No liability concerning the contents or the use thereof is assumed by the producer and by the European Union.

Delivery formats are Layered Geospatial PDF, GeoJPEG and vector (ESRI shapefiles, Google Earth KML, GeoJSON).

Map produced by Telespazio Iberica released by SERTIT(ODO).

For the latest version of this map and related products visit <https://emergency.copernicus.eu/EMSR424>

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