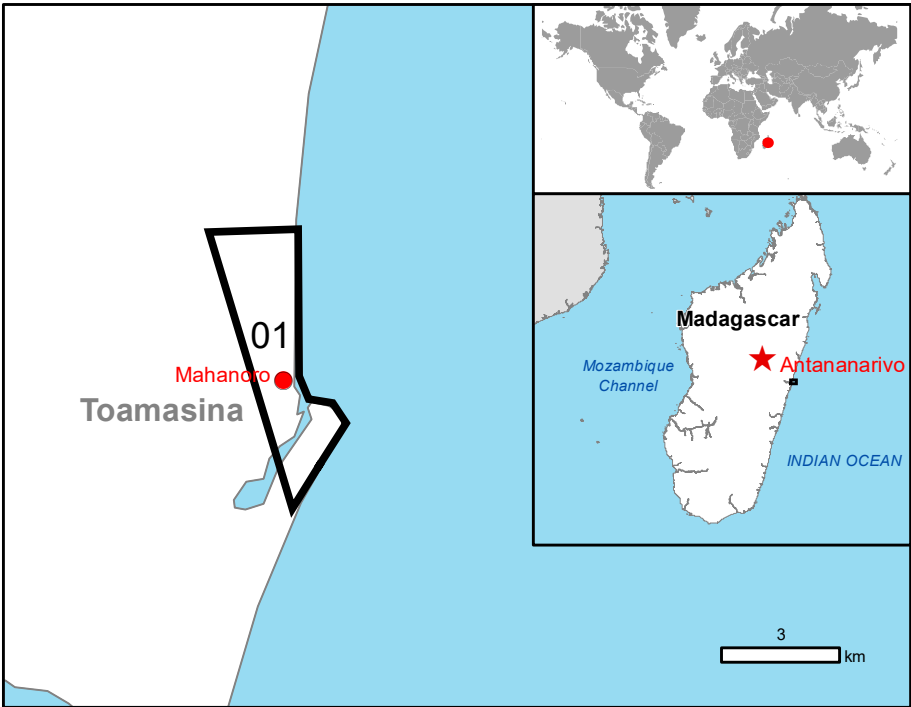


GLIDE number: 2023-000023 Activation ID: EMSR652  
Int. Charter Act. ID: N/A Product N.: 01MAHANORO, v1

## Mahanoro - MADAGASCAR

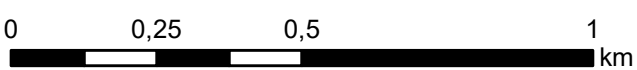
### Storm - Pre-event situation

Reference - Overview map 01



### Cartographic Information

1:13000 Full color A1, 200 dpi resolution



Grid: WGS 1984 UTM Zone 39S map coordinate system  
Tick marks: WGS 84 geographical coordinate system



### Legend

General Information	Hydrography	Transportation
<b>Area of Interest</b> Green outline	<b>Coastline</b> Blue line	<b>Primary Road</b> Grey line
<b>Place names</b> Black text	<b>Stream</b> Blue line	<b>Local Road</b> Grey line
<b>Built-Up Area</b> Red squares	<b>Land Subject to Inundation</b> Blue hatched area	<b>Cart Track</b> Dashed grey line
<b>Office</b> Blue square	<b>Reservoir</b> Blue area	<b>Bridge and elevated highway</b> Grey line with cross-ticks
<b>Police station</b> Blue square	<b>River</b> Blue line	<b>Physiography</b> Features available in the vector package
<b>Wholesale and retail trade</b> Purple square	<b>Facilities</b> Green outline	
<b>Traffic and communication</b> Yellow square		
<b>Public entertainment</b> Yellow square		
<b>Other building not elsewhere classified</b> Black square		

Exposure within the AOI		Total in AOI
Estimated population		5.979
Built-up	No.	7.299
Transportation	km	43,0
Facilities	ha	4,6
Land use	ha	1.046,3

### Map Information

Tropical Cyclone Freddy formed off the southern coast of Indonesia in early February and strengthened into a significant storm with maximum sustained winds at 165 mph. In the next days, it's expected to reach the coasts of Madagascar after passing near the islands of Mauritius and La Reunion. Its impact is also expected to be felt in parts of Mozambique, Zimbabwe and South Africa: up to two million people live in its expected path. It is a candidate to be the strongest and most dangerous storm to form so far during 2023, with heavy rains, strong winds and widespread flash floods anticipated.

The present map shows basic topographic features derived from public datasets, refined by means of visual interpretation of pre-event imagery.

### Relevant date records (UTC)

Event	19/02/2023 14:41	Situation as of	N/A
Activation	19/02/2023 14:41	Map production	20/02/2023

### Data sources

Pre-event image: ESRI World Imagery © DigitalGlobe (acquired on 21/11/2021, GSD 0.5 m, approx. 0% cloud coverage in AOI).

Base vector layers: OpenStreetMap © OpenStreetMap contributors (2022), Wikimapia.org, GeoNames 2015, Globe Land 3D (2020), Copernicus Global Land Service: Land Cover (2019), Global Administrative Areas (2012), refined by the producer.  
Inset maps: JRC 2013, Natural Earth 2012, GeoNames 2015.

Population data: GHS Population Grid © European Commission, 2019  
[https://ghsl.jrc.ec.europa.eu/ghs\\_pop2019.php](https://ghsl.jrc.ec.europa.eu/ghs_pop2019.php)  
Digital Elevation Model: SRTM (30 m) (NASA/USGS) and © Airbus Defence and Space GmbH (2020) provided under COPERNICUS by the European Union and ESA, all rights reserved.

### Disclaimer

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

Map produced by ITHACA released by e-GEOS (ODD).

For the latest version of this map and related products visit  
<https://emergency.copernicus.eu/EMSR652>

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