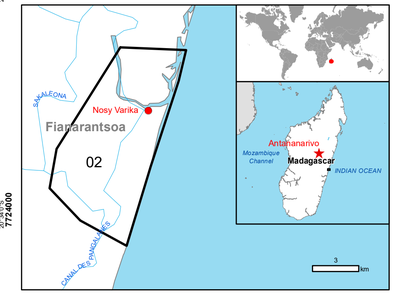
GLIDE number: TC-2023-000023-MDG
Int. Charter Act. ID: 804

Activation ID: EMSR652
Product N.: 02NOSY-VARIKA, v1

NOSY-VARIKA - MADAGASCAR

Storm - Situation as of 25/02/2023

Delineation - Overview map 01



Cartographic Information

1:25000

Full color A1, 200 dpi resolution

0 0.5 1 2 km

N

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

Legend

Crisis Information
- Flooded Area

General Information
- Area of Interest

Placenames
- Placename

Built-Up Area
- Residential
- Office
- Police station
- Industrial
- Public entertainment
- School, university and research
- Hospital or institutional care

Hydrography
- Coastline
- River
- Lake
- Open Water
- River

Facilities
- Sport and recreation constructions

Transportation
- Local Road
- Cart Track
- Bridge and elevated highway

Land Use - Land Cover
Features available in the vector package

Consequences within the AOI				
		Unit of measurement	Affected	Total in AOI
Flooded area		ha		126.2
Estimated population	Number of inhabitants		107	35,775
Built-up	Residential Buildings	No.	6	7,424
	Office buildings	No.	0	4
	Police station	No.	0	1
	Industrial buildings	No.	0	1
	Public entertainment buildings	No.	0	1
	School, university and research buildings	No.	0	30
	Hospital or institutional care buildings	No.	0	4
Transportation	Bridges and elevated highways	km	0.0	0.2
	Local Road	km	1.1	19.1
	Cart Track	km	0.7	44.9
Facilities	Sport and recreation constructions	ha	0.0	1.6
Land use	Heterogeneous agricultural areas	ha	0.0	1,004.7
	Forests	ha	7.2	2,228.4
	Shrub and/or herbaceous vegetation association	ha	119.0	2,445.3
	Inland wetlands	ha	0.0	92.3
	Other	ha	0.0	591.9

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 the flood in the area of Nosy - Varika (Madagascar). The thematic layer has been derived from post-event satellite image using a semi-automatic approach The scale of analysis is 1:10000. The estimated geometric accuracy (RMSE) is 6.0 m or better, from native positional accuracy of the background satellite image. The minimum mapping unit (MMU) is 576 sq m.

Relevant date records (UTC)

Event	19/02/2023 14:41	Situation as of	25/02/2022 13:59
Activation	19/02/2023 14:41	Map production	25/02/2023

Data sources

Pre-event image: ESRI World Imagery © DigitalGlobe (acquired on 07/02/2022, GSD 1 m, approx. 0% cloud coverage in AoI).
Post-event image:COSMO-SkyMed © ASI (2023), distributed by e-GEOS S.p.A. (acquired on 25/02/2023 at 13:59 UTC, GSD 3.0 m), provided under COPERNICUS by the European Union and ESA, all rights reserved.

Base vector layers: OpenStreetMap © OpenStreetMap contributors (2022), Wikimapia.org, GeoNames 2015, Globe Land 30 (2020), 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
Digital Elevation Model: SRTM (30 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.
Please be aware that the thematic accuracy might be lower in urban and forested areas due to inherent limitations of the SAR analysis technique.

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

Map produced by Telespazio Iberica released by e-GEOS (ODO).

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

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