

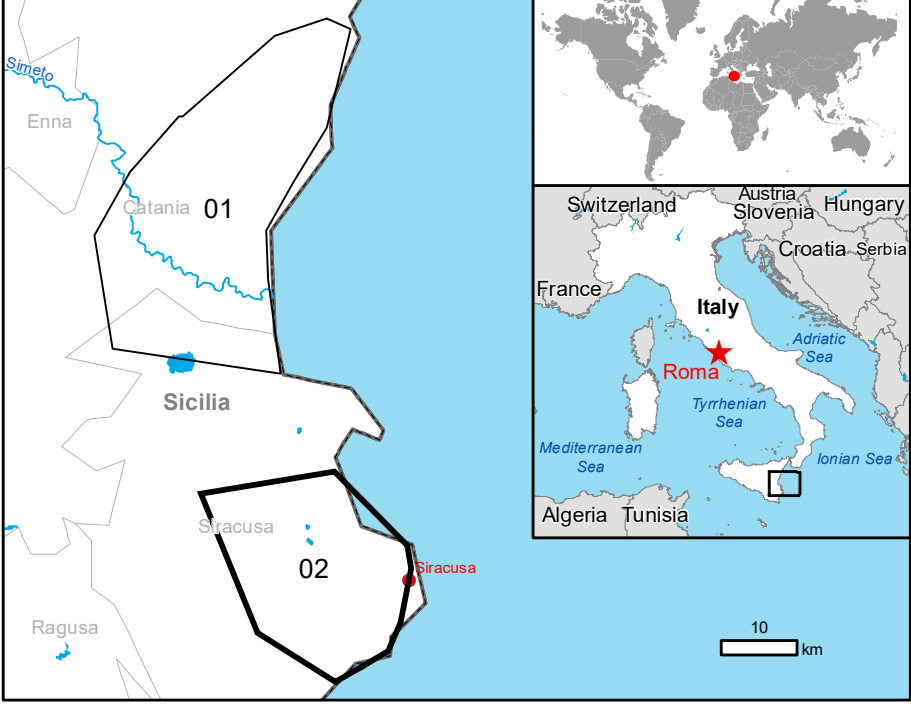


GLIDE number: N/A  
Int. Charter Act. ID: N/A

Activation ID: EMSR548  
Product N.: 02SIRACUSA, v1

## Siracusa - ITALY

### Flood - Situation as of 31/10/2021 Delineation MONIT04 - Overview map 01



#### Cartographic Information

1:50000 Full color A1, 200 dpi resolution



Grid: WGS 1984 UTM Zone 33N map coordinate system  
Tick marks: WGS 84 geographical coordinate system

#### Legend

Crisis Information	Placenames	Land Use, Land Cover, Facilities, Building points and Transportation network
<div><div></div>Flooded Area (31/10/2021 16:56 UTC)</div>	<div><div></div>Placename</div>	<div><div></div>Coastline</div>
<div><div></div>Previous Flooded Area (31/10/2021 04:54 UTC)</div>	<div><div></div>Hydrography</div>	<div><div></div>Land Subject to Inundation</div>
<div><div></div>Area of Interest</div>	<div><div></div>River</div>	
<div><div></div>Administrative boundaries</div>	<div><div></div>Stream</div>	
	<div><div></div>Lake</div>	
	<div><div></div>Municipality</div>	

Consequences within the AOI			
	Affected	Total in AOI	
Flooded area	ha	162.1	
Estimated population		80	160 336
Built-up	No.	1	27 649
Transportation	km	4.7	2 458.1
Facilities	km	0.0	2.7
	km	1.7	272.2
Land use	ha	29.7	1 513.4
	ha	365.1	50 412.9

Full table available in the vector package

#### Map Information

In the late evening of Saturday 23 October 2021, a deep cyclone located in the Ionian Sea, brought heavy and persistent rainfall to the Ionian coast of Sicily and Calabria, mainly around Catania and Syracuse cities. A Red alert was issued by the National Department of Civil Protection. The rain gauge of the municipality of Linguaglossa, recorded over 500 mm in 48 hours. The worst situation was registered in the metropolitan area of Catania and in the municipality of Misterbianco with extensive urban flooding. Road circulation was impeded and several houses were invaded by mud and debris. In the municipality of Randazzo, many people have been evacuated due the overflow of the Fiasco stream. The National Department of Civil Protection triggered the Copernicus EMS Rapid Mapping Service for First Estimate, Delineation and Grading products.

The present map shows the flood delineation in the area of Siracusa (Italy). 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 20 m or better, from native positional accuracy of the background satellite image. The minimum mapping unit (MMU) is 2500 sq m.

#### Relevant date records (UTC)

Event	24/10/2021 00:00	Situation as of	31/10/2021 16:56
Activation	27/10/2021 11:31	Map production	01/11/2021

#### Data sources

Pre-event image: Sentinel-2A (2021) (acquired on 12/08/2021 at 09:40 UTC, GSD 10 m, approx. 0% cloud coverage in AOI, 0° off-nadir angle) provided under COPERNICUS by the European Union and ESA.  
Post-event image: Sentinel-1A (2021) (acquired on 31/10/2021 at 16:56 UTC, GSD 10.0 m) provided under COPERNICUS by the European Union and ESA, all rights reserved.  
Sentinel-1B (2021) (acquired on 31/10/2021 at 04:54 UTC, GSD 10.0 m) provided under COPERNICUS by the European Union and ESA, all rights reserved.

Base vector layers: OpenStreetMap © OpenStreetMap contributors (2021), Wikimapia.org, GeoNames 2015, Corine Land Cover (CLC) 2018, EuroBoundaryMap 2017 © EuroGeographics.  
Inset maps: JRC 2013, GISCO 2010 © EuroGeographics, Natural Earth 2012, CCM River DB © EUJRC2007, GeoNames 2015.  
Population data: GHS Population Grid © European Commission, 2019  
https://ghs.jrc.ec.europa.eu/ghs-pop2019.php  
Digital Elevation Model: COP-DEM-EEA-10-R product © DLR e.V. (2014-2018) and © Airbus Defence and Space GmbH (2020) provided under COPERNICUS by the European Union and ESA, all rights reserved.

#### 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 ITHACA released by e-GEOS (ODD).

For the latest version of this map and related products visit  
<https://emergency.copernicus.eu/EMSR548>

Jrc-ems-rapidmapping@ec.europa.eu  
© European Union  
For full Copyright notice visit <https://emergency.copernicus.eu/mapping/ems/cite-copernicus-ems-mapping-portal>

