



Event:
On the 02 May 2023, an intense phase of bad weather, with considerable rainfall, hit Emilia-Romagna, Italy. The event is on-going with river levels very high, the breaking of the Sillaro River embankment and the overflow of the Lamone River producing flooding close to the cities of Massa Lombarda and Conselice. Copernicus EMS Rapid Mapping is requested to provide initial rough estimation, flood extent and damage assessment emergency mapping.

Data sources and analysis: Pre-event image: Sentinel-2A/B (2022) (acquired on 24/11/2022 at 10:13 UTC, resolution 10.0 m). This image is used as background image.
Post-event image: Sentinel1 (2023), (acquired on 03/05/2023 at 05:28 UTC, resolution 10.0 m).
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Base vector layers: OpenStreetMap © OpenStreetMap contributors (2023), Wikimapia.org, GeoNames 2015, Corine Land Cover (CLC) 2018, EuroBoundaryMap 2017 © EuroGeographics, Inset maps: JRC 2013, GISC0 2010 © EuroGeographics, Natural Earth 2012, CCM River DB © EUJRC2007, GeoNames 2015.

Population data: GHS Population Grid © European Commission, 2022
https://ghsl.jrc.ec.europa.eu/ghs_pop2022.php

The thematic layer has been derived from post-event satellite image by means visual interpretation.
The scale of analysis is 1:10000. The estimated geometric accuracy (RMSE) is 20.0 m or better, from native positional accuracy of the background satellite image. The minimum mapping unit (MMU) is 2500 sq m.

Disclaimer: Full disclaimer and other helpful information available in the online manual:
<https://emergency.copernicus.eu/mapping/ems/online-manual-rapid-mapping-products>.

Map produced by IABG released by SERTIT on the 04/05/2023.
Details on this activation and service conditions available through the QR code or at the link:
<https://emergency.copernicus.eu/EMSR659>

EMSR659 AOI: 04 Idice-Molinella Reference

Exposure within the AOI			
		Unit of measurement	Total in AOI
Estimated population		Number of inhabitants	~ 2,400
Built-up	Residential Buildings	ha	60.1
	Industrial buildings	ha	18.7
	Buildings used as places of worship and for religious activities	ha	3
	Cemetery	ha	0.3
	Unclassified	ha	658
Transportation	Secondary Road	km	5.1
	Local Road	km	20.2
	Cart Track	km	51.9
Facilities	Settling Basin	ha	0.2
	Sport and recreation constructions	ha	11.1
	Other civil engineering works not elsewhere classified	ha	0.6
	Long-distance pipelines, communication and electricity lines	km	18.2
	Local pipelines and cables	km	2.8

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