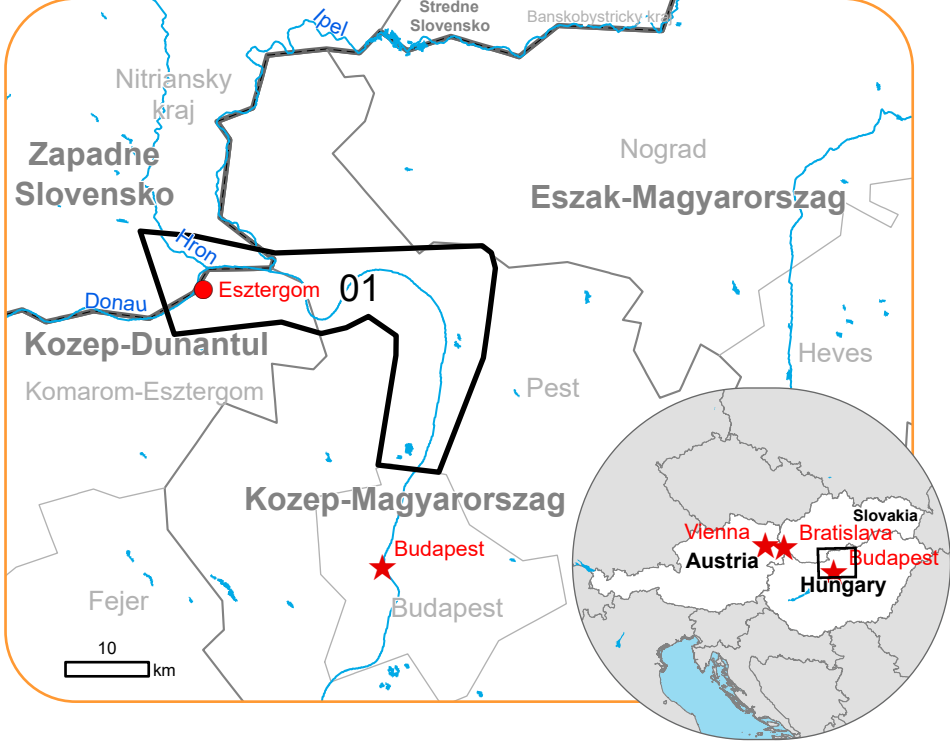


ESMR759 - AOI01
Flood in Hungary, Austria, and Slovakia
ESZTERGOM

Situation as of 18/09/2024 16:34 UTC
Delineation - Overview map 01



Observed Event
510 ha

Potentially affected population
20

Potentially Affected Built-up and Transportations

Built-up
0.4 ha

Road
1.1 km

Estimated flood depth (m)	Built-Up Area
Below 0.50	Residential
0.50 - 1.00	Non residential
1.00 - 2.00	School, university and research buildings
2.00 - 4.00	Hospital or institutional care buildings
4.00 - 6.00	Military
General Information	Hydrography
Area of Interest	Lake, River
Detail map	Transportation
Administrative Boundaries	Highway
International Boundary	Local road
Region	Railway
Province	Airfield runway
Municipality	Airfield
Placenames	Helipad
Placename	

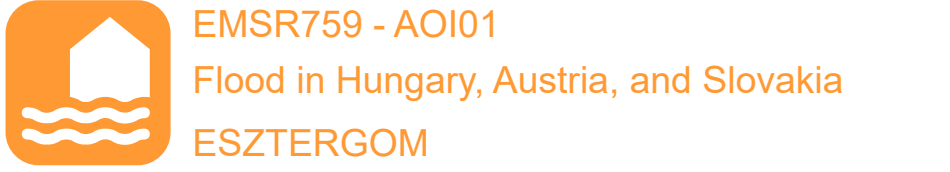
Full data available in the vector package.

Event: On 13 September 2024, from 06:00 local time, downpours started affecting the Danube Basin. Maximum precipitation is expected on the weekend of 14 September 2024. Water levels are expected to rise into the middle of the week starting the 15 September 2024. Copernicus EMS Rapid Mapping is requested to provide initial rough estimation and flood extent emergency mapping.

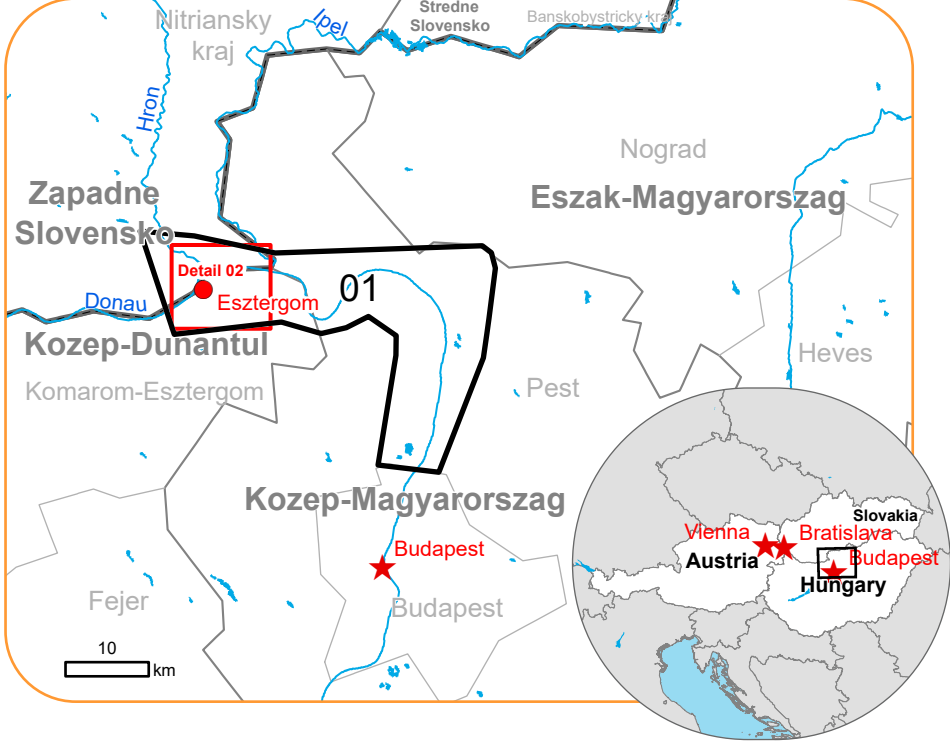
Data sources and analysis: Pre-event image: Sentinel-2A (2024) (acquired on 30/07/2024 at 09:50 UTC, resolution 10.0 m). This image is used as background image. Post-event image: Sentinel-1A (2024) (acquired on 18/09/2024 at 16:34 UTC, resolution 20.0 m). All images are provided under COPERNICUS by the European Union and ESA, all rights reserved.

The thematic layer has been derived from post-event satellite image using a semi-automatic approach. Please be aware that the thematic accuracy might be lower in urban and forested areas due to inherent limitations of the SAR analysis technique.

The flood depth information is based on the analysis of post-event satellite imagery and on Digital Elevation Model data. The flooded area corresponds to the water observed in the most recent satellite imagery, excluding the permanent water.



Situation as of 18/09/2024 16:34 UTC
Delineation - Detail map 02



Estimated flood depth (m)	Built-Up Area
<div></div> Below 0.50	<div></div> Residential
<div></div> 0.50 - 1.00	<div></div> Non residential
<div></div> 1.00 - 2.00	<div></div> School, university and research buildings
<div></div> 2.00 - 4.00	<div></div> Hospital or institutional care buildings
<div></div> 4.00 - 6.00	
General Information	Hydrography
<div></div> Area of Interest	<div></div> Lake, River
Administrative Boundaries	Transportation
<div></div> International Boundary	<div></div> Main road
<div></div> Municipality	<div></div> Local road
Placenames	<div></div> Track
<div></div> Placename	<div></div> Railway
	<div></div> Airfield runway

Full data available in the vector package.

Event: On 13 September 2024, from 06:00 local time, downpours started affecting the Danube Basin. Maximum precipitation is expected on the weekend of 14 September 2024. Water levels are expected to rise into the middle of the week starting the 15 September 2024. Copernicus EMS Rapid Mapping is requested to provide initial rough estimation and flood extent emergency mapping.

Data sources and analysis: Pre-event image: Sentinel-2A (2024) (acquired on 30/07/2024 at 09:50 UTC, resolution 10.0 m). This image is used as background image. Post-event image: Sentinel-1A (2024) (acquired on 18/09/2024 at 16:34 UTC, resolution 20.0 m). All images are provided under COPERNICUS by the European Union and ESA, all rights reserved.

The thematic layer has been derived from post-event satellite image using a semi-automatic approach. Please be aware that the thematic accuracy might be lower in urban and forested areas due to inherent limitations of the SAR analysis technique.

The flood depth information is based on the analysis of post-event satellite imagery and on Digital Elevation Model data. The flooded area corresponds to the water observed in the most recent satellite imagery, excluding the permanent water.

Map produced by SERTIT released by SERTIT on the 19/09/2024.

Details on this activation and service conditions available through the QR code or at the link: <https://rapidmapping.emergency.copernicus.eu/EMSR759>



Consequences within the AOI				
		Unit of measurement	Affected	Total in AOI
Flooded area		ha		510.0
Estimated population	Number of inhabitants		~ 20	~ 190 000
Built-up	Residential Buildings	ha	0.4	5 688.1
	Office buildings	ha	0	46.9
	Wholesale and retail trade buildings	ha	0	82.6
	Industrial buildings	ha	0	927.2
	School, university and research buildings	ha	0	51.5
	Hospital or institutional care buildings	ha	0	12.8
	Military	ha	0	30.9
	Cemetery	ha	0	53.3
Transportation	Airfield runways	ha	0	70.9
	Helipad	ha	0	0.3
	Highways	km	0	44.2
	Primary Road	km	0.2	188.7
	Secondary Road	km	0	77.9
	Local Road	km	0.9	1764.9
Facilities	Settling Basin	ha	0	13.7
	Dams	ha	0	0.1
	Constructions for mining or extraction	ha	0	180.1
	Power plant constructions	ha	0	41.0
	Sport and recreation constructions	ha	0.4	428.7
	Other civil engineering works not elsewhere classified	ha	0	32.8
	Long-distance pipelines, communication and electricity lines	km	2.5	131.7
	Local pipelines and cables	km	4.6	372.4
	Breakwater	km	0	0.1
	Dams	km	0	1.2
Land use	Arable land	ha	260.5	11 329.6
	Pastures	ha	185.5	3 597.2
	Heterogeneous agricultural areas	ha	44.2	6 093.3
	Other	ha	9.3	15 477.8
	Shrub and/or herbaceous vegetation association	ha	7.3	2 718.6
	Forests	ha	3.1	15 297.2
	Permanent crops	ha	0	711.7
	Inland wetlands	ha	0	124.7

Disclaimer:

Full disclaimer and other helpful information available in the online manual:

<https://emergency.copernicus.eu/mapping/ems/online-manual-rapid-mapping-products>

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Data Access:

All data displayed on the map(s), as well as the Physiography and Land Use - Land Cover layers, are available in the Crisis Information Package and the Base Layer Package (for reference data).

The table above is available in editable format in the Crisis Information Package.

All products and data are also available for download on the portal.

Access to the portal

**Estimated Population:**

Estimated population is based on Copernicus Global Human Settlement Layer (GHSL) dataset.

Additional population datasets and analysis are available in the summary table.

Data Sources:

Base Vector Layers: OpenStreetMap © OpenStreetMap contributors (2024), 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.

Digital Elevation Model: FABDEM (ForestAndBuildingsremovedCopernicusDEM) removes building and tree height biases from the Copernicus GLO 30 Digital Elevation Model (DEM) (Airbus,2020).



PROGRAMME OF THE
EUROPEAN UNION

