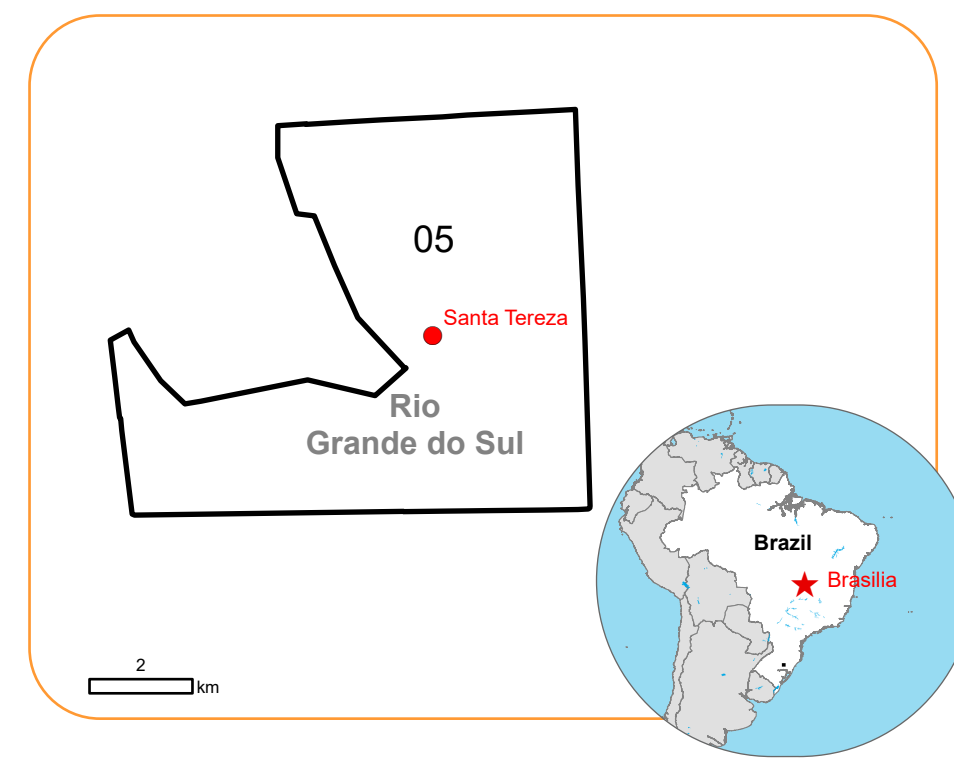


**EMSR720 - AOI05**  
Flood in Rio Grande Do Sul State, Brazil  
**SANTA TEREZA**

**Situation as of 15/05/2024 13:31 UTC**  
Grading MONIT01 - Overview map 01



**Flood trace 489.2 ha**  
**Flooded area 41.1 ha**  
**Landslide 41.9 ha**

**Potentially affected population ~ 350**

**Affected Built-up and Transportations**

**Built-Up**  
423 No.

**Road**  
31.6 km

**Railway**  
0.9 km

- Crisis Information**
- Flooded Area
  - Landslide
  - Flood trace
- Built Up Grading**
- Destroyed
  - Damaged
  - Possibly damaged
- Facilities Grading**
- Destroyed
  - Possibly damaged
- Transportation Grading**
- Road, Destroyed
  - Road, Damaged
  - Road, Possibly damaged
  - Railway, Destroyed
  - Railway, Possibly damaged
  - Bridge, elevated highway, tunnel and subway, Destroyed
- General Information**
- Area of Interest
  - Not Analysed
- Administrative Boundaries**
- Province
- Placenames**
- Placename
- Hydrography**
- River
  - Stream
  - Reservoir
  - River
- Bridge, elevated highway, tunnel and subway, Possibly damaged**
- Main road, No visible damage**
- Local road, No visible damage**
- Track, No visible damage**
- Railway, No visible damage**
- Bridge and elevated highway, No visible damage**

**Event:** Authorities in Brazil Rio Grande do Sul State declared a state of emergency on Thursday, 2 May 2024 after floods and mudslides caused by torrential rains left at least 30 people dead and 60 missing. Storm damage has affected nearly 150 municipalities, forcing over 15,000 people to flee from their homes. In some areas, the flood is so severe that entire communities have been completely cut off from road infrastructures and network. 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: ESRI World Imagery © DigitalGlobe (acquired on 15/07/2023, resolution 1.0 m). This image is used as background image.  
Postevent image: WorldView-3 © Maxar Technologies, Inc. (2024), (acquired on 15/05/2024 at 13:31 UTC, resolution 0.5 m).  
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Base vector layers: OpenStreetMap © OpenStreetMap contributors (2024), Wikimapia.org, GeoNames 2015, Global Administrative Areas (2012), refined by the producer, Globe Land 30 (2010), Copernicus Global Land Service: Land Cover (2019).  
Inset maps: JRC 2013, Natural Earth 2012, GeoNames 2015.

Population data: GHS Population Grid © European Commission, 2023 [https://ghsl.jrc.ec.europa.eu/ghs\\_pop2023.php](https://ghsl.jrc.ec.europa.eu/ghs_pop2023.php)  
Digital Elevation Model: FABDEM(ForestAndBuildingsremovedCopernicusDEM) removes building and tree height biases from the Copernicus GLO 30 Digital Elevation Model (DEM) (Airbus,2020).

The thematic layer has been derived from post-event satellite image by means of visual interpretation.

Map produced by e-GEOS released by e-GEOS on the 05/06/2024.

Details on this activation and service conditions available through the QR code or at the link: <https://rapidmapping.emergency.copernicus.eu/EMSR720>



| Consequences within the AOI   |   |     |           |         |                   |                  |              |
|---|---|-----|-----------|---------|-------------------|------------------|--------------|
|   | Unit of measurement   |     | Destroyed | Damaged | Possibly damaged* | Total affected** | Total in AOI |
| Flood trace   | ha  |     |           |         |                   |                  | 489.2        |
| Flooded area  | ha  |     |           |         |                   |                  | 41.1         |
| Landslide   | ha  |     |           |         |                   |                  | 41.9         |
| Estimated population  | Number of inhabitants   |     |           |         |                   | ~ 350            | ~ 1 200      |
| Built-up  | Residential Buildings   | No. | 66        | 69      | 288               | 423              | 909          |
|   | Buildings used as places of worship and for religious activities      | No. | 0         | 0       | 0                 | 0                | 1            |
|   | Communication buildings, stations, terminals and associated buildings | No. | 0         | 0       | 0                 | 0                | 1            |
| Transportation  | Bridges and elevated highways   | km  | 0.1       | 0       | 0.1               | 0.1              | 0.2          |
|   | Primary Road  | km  | 0         | 0.2     | 2.6               | 2.9              | 6.1          |
|   | Secondary Road  | km  | 0         | 0.3     | 0                 | 0.3              | 4.7          |
|   | Local Road  | km  | 0.04      | 2.5     | 6.6               | 9.1              | 22.5         |
|   | Cart Track  | km  | 0.4       | 10.0    | 8.8               | 19.2             | 59.5         |
|   | No Driveway   | km  | 0         | 0.04    | 0                 | 0.04             | 0.04         |
|   | Long-distance railways  | km  | 0.2       | 0       | 0.7               | 0.9              | 13.7         |
| Facilities  | Sport and recreation constructions                                    | ha  | 0.7       | 0       | 0.6               | 1.3              | 1.9          |
|   | Long-distance pipelines, communication and electricity lines          | km  | 0         | 0       | 0                 | 0                | 2.4          |
| Land use  | Forests   | ha  |           |         |                   | 273.1            | 4 159.0      |
|   | Inland wetlands   | ha  |           |         |                   | 115.5            | 260.2        |
|   | Heterogeneous agricultural areas                                      | ha  |           |         |                   | 102.8            | 134.2        |
|   | Shrub and/or herbaceous vegetation association                        | ha  |           |         |                   | 56.0             | 89.4         |
|   | Other   | ha  |           |         |                   | 24.8             | 159.2        |
| * Presence of damage proxies and proximity with destroyed/damaged asset<br>** Sum of all damage classes |   |     |           |         |                   |                  |              |

**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



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