

EMSR853 - AOI02  
Flood in Bolivia  
SANTA ROSA DEL SARA

Situation as of 18/12/2025 09:50 UTC  
Delineation - Overview map 01



Flooded area  
EO-based 6,811.7 ha  
Model-based 8,614.9 ha



Potentially affected  
population  
~ 100

Potentially Affected Built-up and Transportations



Road  
77.2 km



Built-Up  
14.8 ha

Estimated flood depth (m)

- Below 0.50
- 0.50 to 1.00
- 1.00 to 2.00
- 2.00 to 4.00

General Information

- Area of Interest
- Detail map

Administrative Boundaries

- Province
- Municipality

Placenames

- Placename

Built-Up Area

- Residential
- Non residential
- School, university and research buildings

Hydrography

- Lake, River
- Long-distance pipelines or lines

Facilities

- Sport and recreation constructions

Transportation

- Highway
- Main road
- Local road
- Track
- Railway

**Event:** On the 14 December 2025, intense rainfall is reported to have a significantly affected provinces of Andrés Báñez and Sara, Bolivia. The event caused rivers to overflow. 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 (2025) (acquired on 21/10/2025 at 14:27 UTC, resolution 10.0 m).  
Post-event image: Sentinel-1A/B (2025) (acquired on 18/12/2025 at 09:50 UTC, resolution 20 m). COSMO-SkyMed © ASI (2025), distributed by e-GEOS S.p.A. (acquired on 17/12/2025 at 10:22UTC, resolution 30 m).  
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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 flooded area corresponds to the water observed in the most recent satellite imagery, excluding the permanent water.

An extrapolated flood extent is generated by integrating observed flood areas with a Digital Terrain Model (DTM). The model's accuracy and spatial coverage depend on DTM resolution and quality, enabling the prediction of potentially flooded areas in regions with limited visibility in imagery, such as urban and forested zones.

Map produced by GMV released by e-GEOS on the 20/12/2025.


Details on this activation and service conditions available through the QR code or at the link: <https://mapping.emergency.copernicus.eu/activations/EMSR853>



PROGRAMME OF THE  
EUROPEAN UNION







EMSR853 - AOI02

Flood in Bolivia

SANTA ROSA DEL SARA

Situation as of 18/12/2025 09:50 UTC

Delineation - Detail map 02



Estimated flood depth (m)

Below 0.50

0.50 to 1.00

1.00 to 2.00

2.00 to 4.00

General Information

Area of Interest

Administrative Boundaries

Province

Placenames

Placename

Built-Up Area

Residential

Non residential

Hydrography

Lake, River

Facilities

Sport and recreation constructions

Transportation

Highway

Main road

Local road

Track

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Consequences within the AOI

|                    |                          |  | Unit of measurement | LATEST IMPACT         |                         |                                 |
|--------------------|--------------------------|--|---------------------|-----------------------|-------------------------|---------------------------------|
|                    |                          |  |                     | EO-based observation* | Model-based observation | EO- and Model-based observation |
| Crisis information | Flooded area             |  | ha                  | 6.811,7               | 8.614,9                 | 15.426,6                        |
|                    | Maximum of all extents** |  | ha                  | 6.811,7               | 8.614,9                 | 15.426,6                        |

|                      |                |  |     | POTENTIALLY AFFECTED |         | TOTAL POTENTIALLY AFFECTED | Total in AOI |
|----------------------|----------------|--|-----|----------------------|---------|----------------------------|--------------|
| Estimated population |                | Inhabitants  | No. | ~ 30                 | ~ 70    | ~ 100                      | ~ 32.000     |
| Assets               | Built-up       | Residential Buildings  | ha  | 2,6                  | 12,2    | 14,8                       | 1.646,0      |
|                      |                | Industrial buildings   | ha  | 0                    | 0       | 0                          | 48,8         |
|                      |                | School, university and research buildings                    | ha  | 0                    | 0       | 0                          | 0,9          |
|                      |                | Cemetery   | ha  | 0                    | 0       | 0                          | 3,3          |
|                      |                |  |     |                      |         |                            |              |
|                      | Transportation | Highways   | km  | 0,2                  | 0,8     | 0,9                        | 39,5         |
|                      |                | Primary Road   | km  | 2,0                  | 2,8     | 4,9                        | 27,9         |
|                      |                | Secondary Road   | km  | 0,7                  | 1,8     | 2,5                        | 67,8         |
|                      |                | Local Road   | km  | 2,3                  | 2,4     | 4,7                        | 358,9        |
|                      |                | Cart Track   | km  | 17,6                 | 46,6    | 64,3                       | 2.099,7      |
|                      |                | Long-distance railways                                       | km  | 0                    | 0       | 0                          | 17,7         |
|                      |                |  |     |                      |         |                            |              |
|                      | Facilities     | Sport and recreation constructions                           | ha  | 0                    | 0       | 0                          | 16,2         |
|                      |                | Long-distance pipelines, communication and electricity lines | km  | 0                    | 0       | 0                          | 9,7          |
|                      | Land use       | Shrub and/or herbaceous vegetation association               | ha  | 3.446,4              | 4.847,1 | 8.293,5                    | 133.576,4    |
|                      |                | Heterogeneous agricultural areas                             | ha  | 1.742,9              | 1.513,1 | 3.256,1                    | 53.497,0     |
|                      |                | Inland wetlands  | ha  | 943,9                | 1.423,7 | 2.367,6                    | 23.736,9     |
|                      |                | Forests  | ha  | 669,8                | 824,2   | 1.494,0                    | 239.836,1    |
|                      |                | Other  | ha  | 8,6                  | 6,8     | 15,4                       | 2.907,6      |
|                      |                | Open spaces with little or no vegetation                     | ha  | 0                    | 0       | 0                          | 71,9         |
|                      |                |  |     |                      |         |                            |              |

\* Corresponds to the water observed in the most recent satellite imagery, excluding permanent water

\*\* Corresponds to the geographic union (and NOT the sum) of all Crisis Information extents.

Disclaimer:

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

<https://mapping.emergency.copernicus.eu/about/rapid-mapping-manual/>

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Data Access:

All data displayed on the map(s), as well as Land Use - Land Cover layer(s), 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.

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 (2025); Wikimapia.org; GeoNames 2015; Global Administrative Areas (2022), refined by the producer, Globe Land 30 (2010), Copernicus Global Land Service: Land Cover (2019).

Inset Maps: Natural Earth 2023; HydroLAKES 2016 by HydroSHEDS; © EuroGeographics, © TurkStat. Source: European Commission – Eurostat/GISCO, 2021.

Digital Elevation Model:

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

Access to the portal

