

**Respon Tanggap Darurat  
Bencana Berbasis Data Satelit**  
*Space-based Disaster Emergency Response*

**BANJIR**

**Langkat**

**Provinsi Sumatera Utara, Indonesia**

**E8**

**Flood**  
Langkat  
North Sumatra Province, Indonesia



5 km

1:200,000

Map scale for A3

CRS: WGS84 (EPSG:4326)

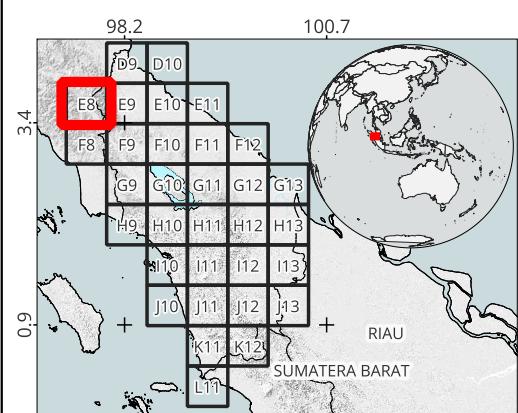
Legenda:

- [Dashed line] Batas kabupaten District border
- [Blue square] Danau Lake
- [Solid blue line] Estimasi area terdampak banjir Estimated flooded area
- [Red line] Jaringan jalan primer Primary road
- [Red line with arrow] Jaringan jalan Road

Sumber Data:  
Data source:

1. Batas administrasi dari Badan Informasi Geospasial  
*Administrative boundary courtesy of Geospatial Information Agency (BIG)*

2. Jaringan jalan dan nama tempat dari Open Street Map  
*Road networks and nameplace courtesy of the Open Street Map (OSM)*



**Deskripsi:**  
Estimasi genangan banjir dilakukan dengan menganalisis perubahan nilai backscatter ( $\Delta$ dB) pada citra SAR Sentinel-1 sebelum (22 November 2025) dan sesudah kejadian (28 November 2025). Penurunan backscatter yang melampaui ambang batas yang ditetapkan, diidentifikasi sebagai genangan banjir. Hasil estimasi masih memerlukan validasi lapangan.

**Description:**  
Flood inundation was estimated by analyzing changes in backscatter ( $\Delta$ dB) in Sentinel-1 SAR imagery acquired before (22nd November 2025) and after the event (28th November 2025). A decrease in backscatter exceeding the predefined threshold was classified as flooded area. Estimated flood still needed to be verified further.

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