

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

BANJIR
 Sumatera Utara, Indonesia

Flood
 North Sumatera Province, Indonesia

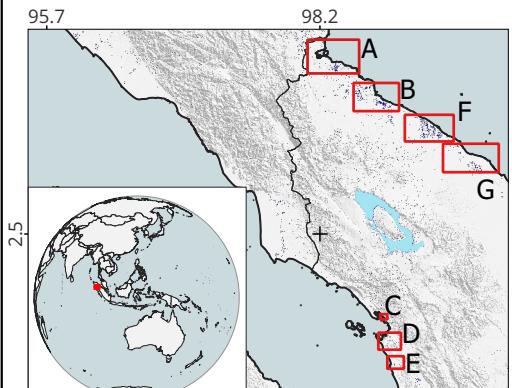


Legenda:

- Batas kabupaten
District border
- Danau
Lake
- Estimasi area terdampak banjir
Estimated flooded area
- ✓ Jaringan jalan primer
Primary road
- ✓ Jaringan jalan
Road

Sumber Data:
Data source:

1. Batas administrasi dari Badan Informasi Geospasial
Administrative boundary courtesy of Geospatial Information Agency (BIG)
2. Sentinel-1 level GRD Polarisiasi VV dan Copernicus DEM
 dari European Space Agency (ESA)
Sentinel-1 SAR GRD data (VV polarization) and Copernicus DEM Courtesy of the European Space Agency (ESA)



Deskripsi:
 Estimasi genangan banjir dilakukan dengan menganalisis perubahan nilai backscatter (ΔdB) 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. Wilayah terdampak luas terdeteksi di Kabupaten Langkat, Kabupaten Deli Serdang, Kabupaten Serdang Bedagai, Kabupaten Batu Bara, Kabupaten Asahan, Kota Sibolga, Kabupaten Tapanuli Tengah dan Kabupaten Tapanuli Selatan. Hasil estimasi masih memerlukan validasi lapangan.

Description:
 Flood inundation was estimated by analyzing changes in backscatter (ΔdB) in Sentinel-1 SAR imagery acquired before (22 November 2025) and after the event (28 November 2025). A decrease in backscatter exceeding the predefined threshold was classified as flooded area. Extensive inundation was detected in Langkat Regency, Deli Serdang Regency, Serdang Bedagai Regency, Batu Bara Regency, Asahan Regency, Sibolga City, Central Tapanuli Regency, and South Tapanuli Regency. Estimated flood still needs to be verified further.

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