

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

**BANJIR**

Provinsi Aceh, Indonesia

**Flood**

Aceh Province, Indonesia



Legenda:



Batas kabupaten  
District border



Jaringan jalan primer  
Primary road



Danau  
Lake



Jaringan jalan  
Road

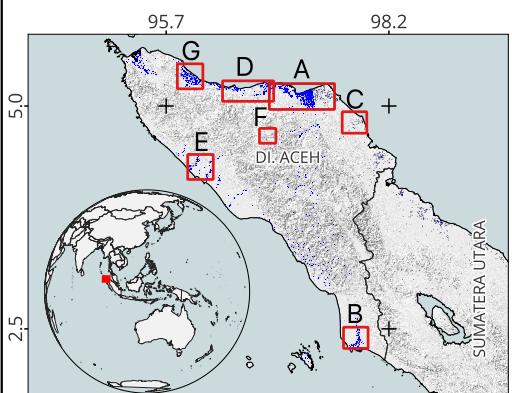


Estimasi area terdampak banjir  
Estimated flooded area

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 ( $\Delta dB$ ) pada citra SAR Sentinel-1 sebelum (15 November 2025) dan sesudah kejadian (27 November 2025). Penurunan backscatter yang melampaui ambang batas yang ditetapkan, diidentifikasi sebagai genangan banjir. Wilayah terdampak luas terdeteksi di Kota Lhokseumawe dan Kabupaten Aceh Utara, sebagian Kabupaten Aceh Singkil, Kabupaten Aceh Barat, Kabupaten Aceh Tengah, Kabupaten Bener Meriah, Kabupaten Pidie dan Kabupaten Bireuen. 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 (15 November 2025) and after the event (27 November 2025). A decrease in backscatter exceeding the predefined threshold was classified as flooded area. Extensive inundation was detected in Lhokseumawe City and Aceh Utara Regency, and in parts of Aceh Singkil, Aceh Barat, Aceh Tengah, Bener Meriah, Pidie and Bireuen regencies. Estimated flood still needs to be verified further.

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