

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

**BANJIR**

J11

Mandailing Natal,Tapanuli Selatan,  
 Kota Padang Sidempuan,Padang  
 Lawas Utara,Padang Lawas  
 Provinsi Sumatera Utara, Indonesia

**Flood**

Mandailing Natal, Tapanuli Selatan, Kota Padang  
 Sidempuan, Padang Lawas Utara, Padang  
 Lawas  
 North Sumatra Province, Indonesia



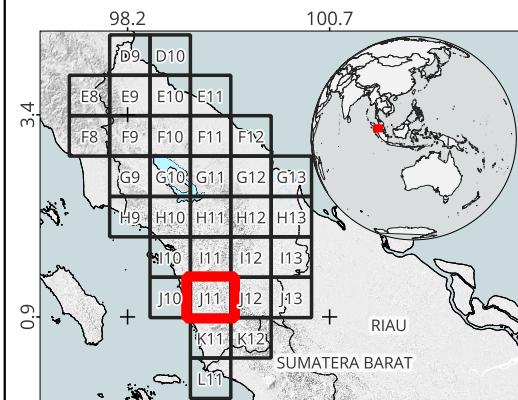
5 km  
 1:200,000  
 Map scale for A3  
 CRS: WGS84 (EPSG:4326)

**Legenda:**

<span style="border: 1px dashed black; padding: 2px;"> </span>	Batas kabupaten District border	<span style="color: red;">✓</span>	Jaringan jalan primer Primary road
<span style="background-color: #0070C0; color: white; padding: 2px;"> </span>	Danau Lake	<span style="color: red;">✓</span>	Jaringan jalan Road
<span style="background-color: #0000FF; color: white; padding: 2px;"> </span>	Estimasi area terdampak banjir Estimated flooded area	<span style="color: blue;">■</span>	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. 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.*

Information Produced by:  
 Indonesia Regional Support Office, UN-SPIDER, INASA, BRIN  
<https://bit.ly/Indonesia-RSO-BRIN>  
 Supported by:  
 - Center for Data and Information, BRIN  
 - Research Center for Geoinformatics, BRIN  
 Contact: Yenni Vetrina Ph.D (yenn004@brin.go.id)



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