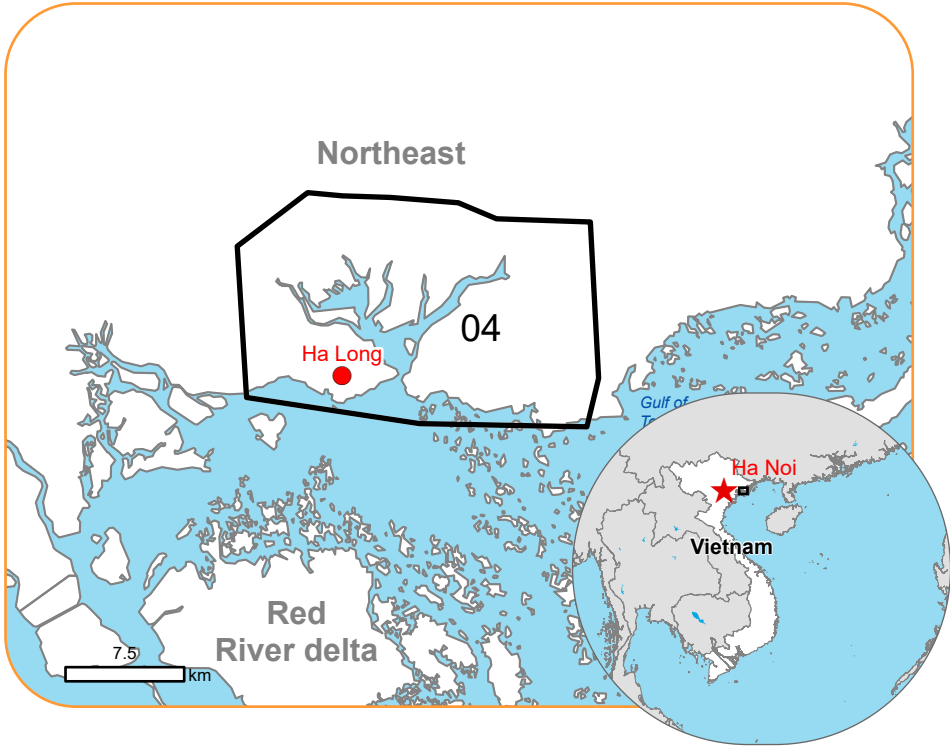


Situation as of 13/09/2024 03:16 UTC
Delineation - Overview map 01



Flooded area
574.3 ha

Potentially affected
population
~ 300

Potentially Affected Built-up and Transportations

Road
2.7 km

Estimated flood depth (m)

Below 0.50
0.50 - 1.00
1.00 - 2.00
2.00 - 4.00
4.00 - 6.00
Flood trace

General Information

Area of Interest
 Image Footprint
 Not Analysed

Administrative Boundaries

Province
 Municipality

Placenames

Placename

Built-Up Area

Residential
 Non residential
 School, university and research buildings
 Hospital or institutional care buildings
 Military
 Unclassified

Hydrography

Lake, River

Facilities

Long-distance pipelines or lines
 Water or Aquatic infrastructure
 Power plant
 Sport and recreation constructions
 Dump Site
 Water or Aquatic infrastructure
 Dam
 Highway
 Main road
 Local road
 Track
 Railway

Event On the 09 September 2024 at 06:00, typhoon YAGI passed over central and northern Philippines, Hainan island and Guangdong province, southern China, and the regions of the north of Viet Nam and caused heavy rainfall, floods and landslides that have resulted in an increased number of casualties. The combined effects of the monsoon and tropical disturbances have caused flooding and flash floods in northern Laos and Thailand. In Viet Nam, the authorities have reported, as of 11 September, 127 fatalities, approximately 54 people still missing, more than 750 injured and over 52,000 evacuated people across northern provinces. Quang Ninh and Hai Phong provinces are the worst affected. Three provinces have declared emergencies: Lao Cai, Tuyen Quang and Yen Bai. Copernicus EMS Rapid Mapping is requested to provide an initial rough estimation and flood extent emergency mapping.

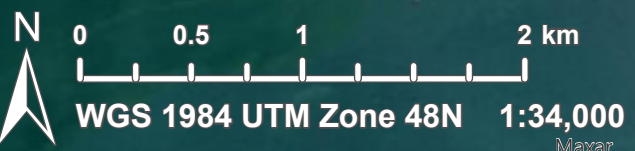
Data sources and analysis: Pre-event image: PlanetScope © Planet, 2024 (acquired on 04/09/2024 at 03:35 UTC, resolution 3.0 m).
Post-event image: Pléiades-1A/B © CNES (2024), distributed by Airbus DS (acquired on 13/09/2024 at 03:16 UTC, resolution 2.0 m).
This image is used as background image.
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The thematic layer has been derived from post-event satellite image using a semi-automatic approach.

The flood depth information is based on the analysis of post-event satellite imagery and on Digital Elevation Model data. The flooded area corresponds to the water observed in the most recent satellite imagery, excluding the permanent water.

Map produced by e-GEOS released by SERTIT on the 14/09/2024.

Details on this activation and service conditions available through the QR code or at the link: <https://rapidmapping.emergency.copernicus.eu/EMSR754>



| Consequences within the AOI | | | | |
|-----------------------------|--|---------------------|----------|--------------|
| | | Unit of measurement | Affected | Total in AOI |
| Flood trace | | ha | | 58.7 |
| Flooded area | | ha | | 574.3 |
| Estimated population | Number of inhabitants | | ~ 300 | ~ 250 000 |
| Built-up | Residential Buildings | ha | 0 | 2 012.1 |
| | Office buildings | ha | 0 | 14.5 |
| | Wholesale and retail trade buildings | ha | 0 | 7.0 |
| | Industrial buildings | ha | 0 | 413.5 |
| | School, university and research buildings | ha | 0 | 52.8 |
| | Hospital or institutional care buildings | ha | 0 | 7.4 |
| | Military | ha | 0 | 18.4 |
| | Cemetery | ha | 0 | 50.3 |
| | Unclassified | ha | 0 | 109.7 |
| Transportation | Highways | km | 0 | 119.8 |
| | Primary Road | km | 0 | 14.8 |
| | Secondary Road | km | 0 | 153.3 |
| | Local Road | km | 2.3 | 1 209.1 |
| | Cart Track | km | 0.4 | 117.2 |
| | Long-distance railways | km | 0 | 41.1 |
| Facilities | Settling Basin | ha | 0 | 7.3 |
| | Dams | ha | 0 | 1.8 |
| | Power plant constructions | ha | 0 | 63.9 |
| | Sport and recreation constructions | ha | 0 | 30.5 |
| | Other civil engineering works not elsewhere classified | ha | 0 | 1.6 |
| | Long-distance pipelines, communication and electricity lines | km | 4.8 | 130.9 |
| | Breakwater | km | 0 | 0.1 |
| Land use | Inland wetlands | ha | 216.2 | 1 343.6 |
| | Other | ha | 206.7 | 12 665.2 |
| | Forests | ha | 84.2 | 9 855.2 |
| | Heterogeneous agricultural areas | ha | 75.4 | 2 797.9 |
| | Shrub and/or herbaceous vegetation association | ha | 50.4 | 2 711.0 |
| | Open spaces with little or no vegetation | ha | 0 | 10.2 |

Disclaimer:

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

<https://emergency.copernicus.eu/mapping/ems/online-manual-rapid-mapping-products>

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Data Access:

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

Access to 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 (2024), Wikimapia.org, GeoNames 2015,

Global Administrative Areas (2012), refined by the producer, Globe Land 30 (2010), Copernicus Global Land Service: Land Cover (2019).

Inset maps: JRC 2013, Natural Earth 2012, GeoNames 2015.

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



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