# Mapping Indicators for nature-based solutions flooding frequency in Thanh Chuong, Viet Nam (2017-2021)

Flooding frequency in Thanh Chuong district of Viet Nam was calculated for the period 2017-2021 to assess the impact on cropland and agricultural production. The flood extent was created using a change detection approach on Sentinel-1 (SAR) data. The results were obtained at 10m spatial resolution.
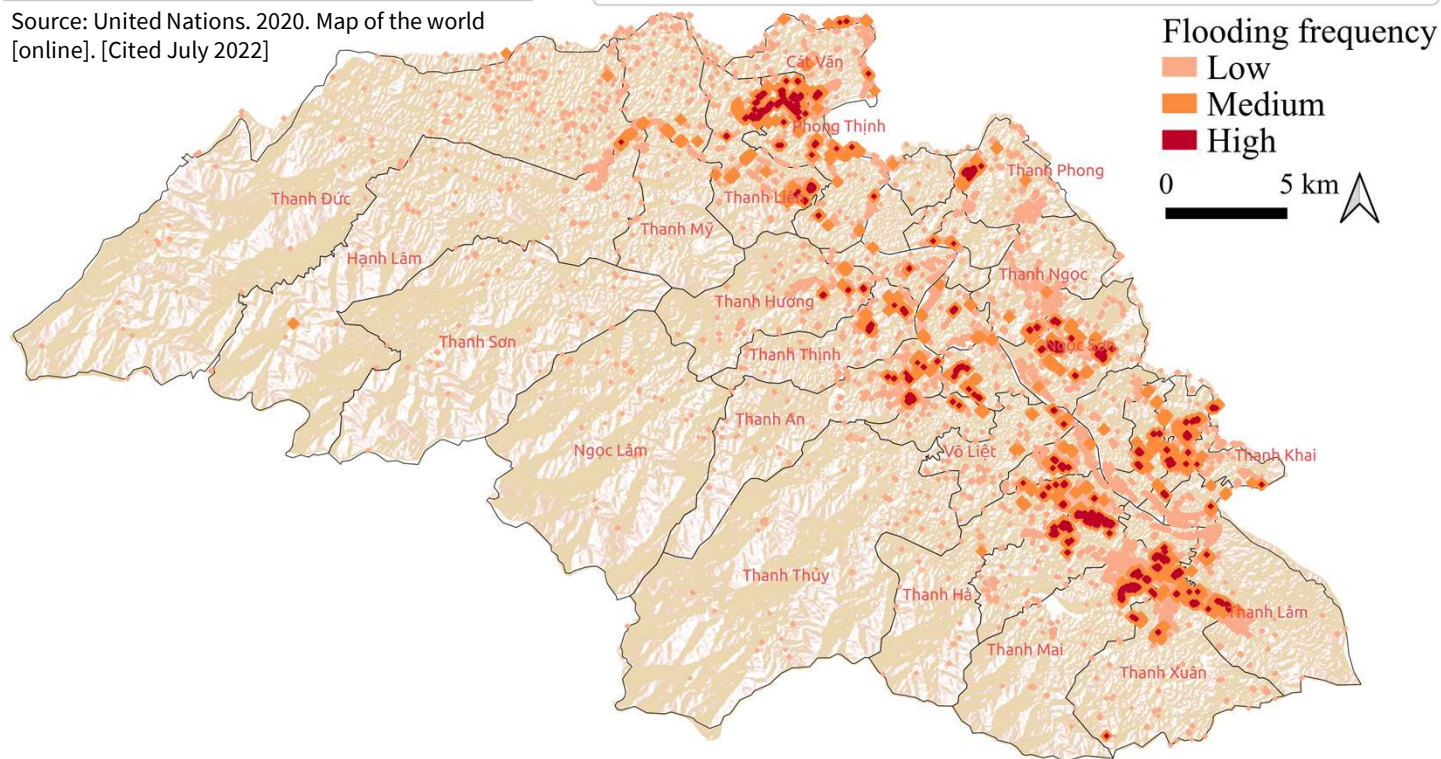


Figure 1: Extent of flooding frequency (low, medium and high) (in 10m x 10m grid) in Thanh Chuong for the period 2017-2021 in Viet Nam[1]

Table 1: Extent of flood in Thanh Chuong district

| Townlets | Flood (ha) | | | Total (ha) | Percent |
|---|---|---|---|---|---|
| | Low | Medium | High | | |
| **Top four** Thanh Xuan | 264.7 | 40.2 | 7.3 | 312.3 | 7.6 |
| Thanh Mai | 194.2 | 20.3 | 18.2 | 232.6 | 5.2 |
| Ngoc Son | 196.1 | 20.5 | 14.1 | 230.7 | 10.2 |
| Thanh Lam | 176.6 | 20.6 | 2.2 | 199.4 | 5.5 |
| **Bottom four** Thanh Chuong | 3.3 | 0.0 | 0.0 | 3.3 | 1.3 |
| Thanh Son | 5.2 | 0.0 | 0.0 | 5.2 | 0.1 |
| Ngoc Lam | 5.5 | 0.0 | 0.0 | 5.5 | 0.1 |
| Thanh Hung | 8.0 | 0.0 | 0.0 | 8.0 | 1.3 |

## Key Findings

- During the period 2017-2021, the total flooded land area is 3 220ha which represents 2.87% of total land area.
- Most affected townlets by flood are Thanh Xuan, Thanh Mai, Ngoc Soc, Thanh Lam.

[1] GADM. The boundaries and names shown, and the designations used on these map(s) do not express any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement.