Damage to agricultural infrastructure due to the conflict in the Gaza Strip as of 1 December 2023

The damage to agricultural infrastructure was estimated using the available Sentinel 1 SAR images on October 12, 13, 24, 25, November 5, 6, 17, 18, 29 and 30. This is a proxy measure of damage estimated by implementing the so-called coherence change detection (CCD) algorithm. Three image pairs were used — two pre-event sets and one post-event set.

The coherence layers were calculated for each pair to assess the changes. This damage proxy map (DPM) detects the changes in the built-up area.

The number of damaged agricultural infrastructures was calculated based on their location within a 15-meter radius area around a damaged site. The grid depicts the severity of damage in localised areas; in each tile the number of damaged infrastructures was divided by the total number of infrastructures.

**Key messages**

1. Based on the number of damaged infrastructures, home barns (87), broiler farms (83) and sheep farms (67) were the most damaged agricultural infrastructures.

2. The port of Gaza City has been significantly damaged, to the point of being non-operational; the majority of the vessels have likely been damaged, destroyed or deserted the port.

This assessment has been conducted based on available satellite imagery, ancillary data and remote sensing analysis for the period of 7 October - 1 December 2023 without field validation. Agricultural infrastructure data from 2021 was used as baseline data due to limited availability for data collection in the area of interest and time constraints related to the nature of the report.