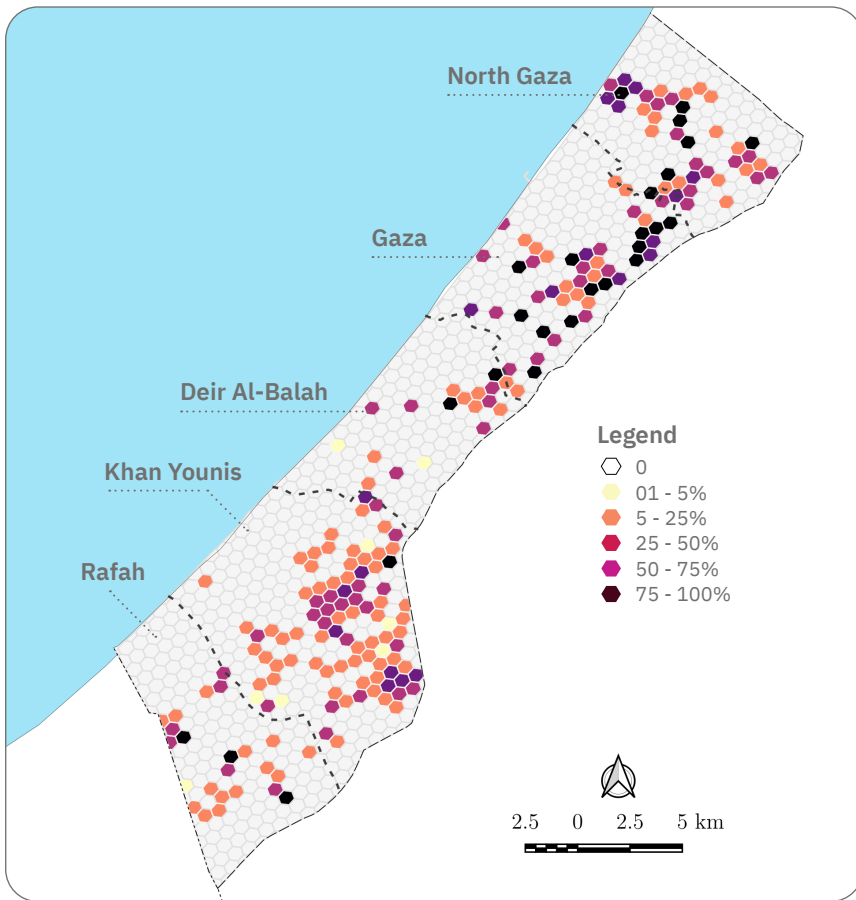




Damage to agricultural infrastructure due to the conflict in the Gaza Strip as of 31 December 2023



Damage to agricultural infrastructure

The damage to agricultural infrastructure was estimated using the available Sentinel 1 SAR images on October 12, 13, 24, 25, December 11, 12, 22 and 23.

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.

Agri-infrastructure damage (number of infrastructures damaged)

488	94	9	20	206
36	5	149	5	30
1	172	29	76	5

Key messages

1. Based on the number of damaged infrastructures, home barns (207), broiler farms (172) and sheep farms (149) 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 7 October - 31 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. This assessment was conducted by the Geospatial Unit at the Land and Water Division (NSL) of FAO and will be further complemented with additional field assessment and use of very high-resolution imagery. 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.

