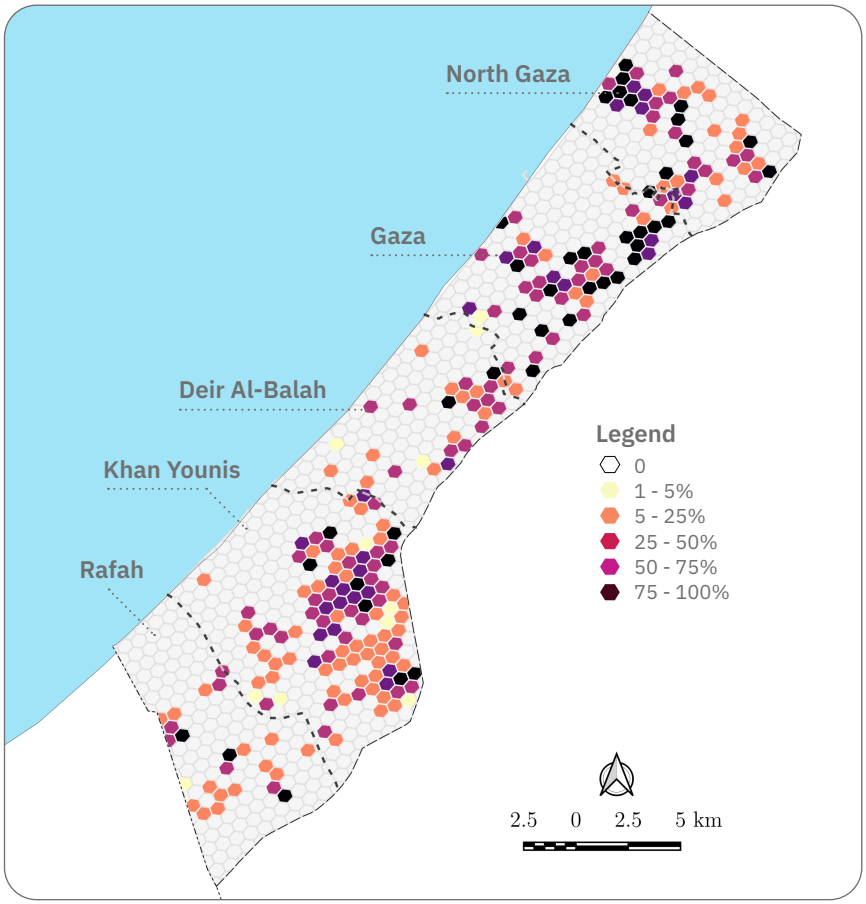
Food and Agriculture Organization of the United Nations

Damage to agricultural infrastructure due to the conflict in the Gaza Strip as of 15 February 2024



Damage to agricultural infrastructure

The damage to agricultural infrastructure was estimated using the available Sentinel 1 SAR images on January 04, 05, 16, 17, 28, 29, February 09, 10.

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-infrastructural damage (number of infrastructures damaged)

626 Wells	119 Animal shelters	11 Rabbit farms	26 Dairy farms	307 Home barns
47 Ponds	5 Cattle farms	203 Sheep farms	7 Turkey farms	46 Farm storages
1 Port	235 Broiler farms	42 Pigeon/other bird farms	100 Agricultural warehouses	7 Agricultural suppliers

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Key messages

1. Based on the number of damaged infrastructures, home barns (307), broiler farms (235) and sheep farms (203) were the most damaged agricultural infrastructures.

2. The governorate of Khan Younis had the largest number of damaged agricultural infrastructures (679 damaged).

This assessment has been conducted based on available satellite imagery, ancillary data and remote sensing analysis for the period 7 October - 15 February 2024 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
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