Food and Agriculture Organization of the United Nations
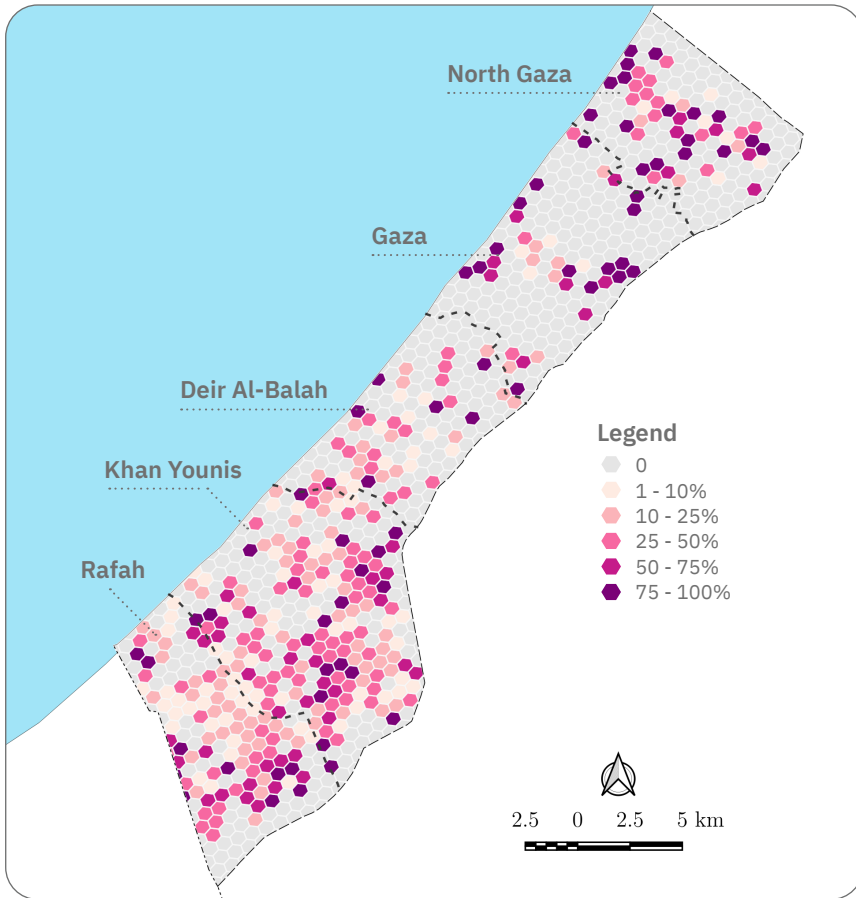
Damage to greenhouses due to the conflict in the Gaza Strip as of 1 December 2023
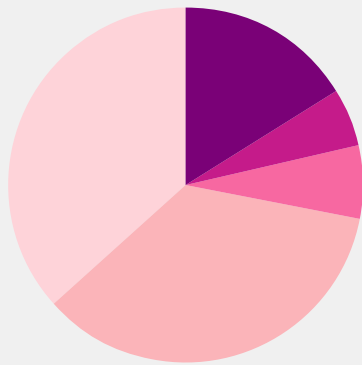

Damage to greenhouses

The damage to greenhouses 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 area of damaged greenhouses was calculated by overlaying the greenhouse distribution layer on the damage proxy map. The grid depicts the severity of damage in localised areas; in each tile the area of damaged greenhouses was divided by the total greenhouse area.

Legend
- 0
- 1 - 10%
- 10 - 25%
- 25 - 50%
- 50 - 75%
- 75 - 100%

Damaged greenhouses area (ha) by Governorate

			percent
North Gaza	107	34	32.3%
Gaza	36	12	32.5%
Deir Al-Balah	149	14	9.5%
Khan Younis	426	77	18.1%
Rafah	559	79	14.1%
Total	1 277	216	16.9%

Key messages

1. **16.9% of all greenhouses have been damaged.**

2. **The governorate of Rafah had the largest area of damaged greenhouses in hectares (79 ha; 14.1% of all cropland).**

3. **The governorate of Gaza had the largest proportion of damaged greenhouses (12 ha; 32.5% of all cropland).**