Annual cropland category map of the Gaza Strip 2023

Cropland assessment
FAO and UNOSAT have conducted a series of geospatial assessments of agricultural land and infrastructure to evaluate damage resulting from the conflict in the Gaza Strip. Cropland category maps will facilitate assessments of damage to key agricultural sectors and inform rehabilitation strategies.

SPOT very-high resolution multispectral (6m), panchromatic (1.5m), and Sentinel-2 (10m) satellite imagery were used to generate a crop and vegetable mask using 539 training data points.

Subsequently, an agricultural time series analysis was conducted using Sentinel-2 multispectral imagery from January to December 2023, incorporating spectral signatures and crop calendars, to prepare the annual cropland category map.

Key messages
1. The area of cropland in the Gaza Strip was determined to be 15 123 ha (42% of the total land area).
2. Orchards and other trees** is the largest cropland category (8 854 ha), followed by vegetables (4 059 ha) and field crops (2 210 ha).
3. Khan Younis has the largest area of vegetables (1 305 ha) and field crops (728 ha).

* To convert to the locally used unit of dunums, divide by 10 (1 ha is equal to 10 dunums).
** The land area estimate for the class “orchards and other trees” includes trees in agriculture, orchards and plantations, and is different from the class “tree horticulture” from the Agriculture Census (Palestinian Central Bureau of Statistics, 2021).

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.

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