This initial quantification of conflict generated debris in Gaza is derived from UNOSAT Comprehensive Damage Assessment from Nov 7th 2023, in conjunction with building footprint data provided by Microsoft BING. Damaged building footprints were enriched through zonal statistics with an above surface height model, derived from the difference between a Digital Terrain Model (SRTM) and a Digital Surface Model (ALOS World 3D) as provided by the European Commission in the GHS-Built H product.

For modeling purposes, minimum building height and average story height were considered to be 3m. Each built sq. meter is considered to have generated 1 tonne of debris.

For visualization and modeling purposes, results were aggregated into an H3 hexagonal grid where each cell is 250m wide.

According to UNOSAT damage assessment, a total of 25,050 structures were destroyed or damaged in the Gaza Strip as of 7 November 2023. This corresponds to approximately 10 per cent of the total structures in the Gaza strip.

So far, debris generated by the current conflict has surpassed the combined sum of all debris generated by other conflicts since 2008.

This preliminary analysis has not yet been validated in the field and is appropriate for general planning of debris operational responses and related humanitarian action in the Gaza Strip.