

## G SUMMARY OF FINDINGS

### Chapter 2 – Spatial Control

#### 1 Quantitative findings

##### 1.1 We identified several key elements of the Israeli military's present system of spatial control in Gaza:

- (a) A 1km-wide 'buffer zone' along the eastern perimeter of Gaza. Most buildings and all agricultural installations have been destroyed within this zone.
- (b) The Netzarim corridor, running east to west, bisecting Gaza north of Wadi Gaza. The corridor is composed of a 6.5 km-long road with 2–3.5 km of cleared margins on its south side and 1.7–3.5 km on its north side, within which most buildings and agricultural infrastructure have been destroyed.
- (c) Two permanent checkpoints at the intersections of the Netzarim corridor, with the two main north–south traffic arteries, Salah al-Din Road and al-Rashid Road. We also identified and analysed four temporary checkpoints throughout Gaza, operational at different times.
- (d) Thirteen raid routes leading from Israeli military bases outside of Gaza into Gaza. The construction or widening of these roads often involved the destruction of most buildings and all agricultural lands in their path.
- (e) The Philadelphi corridor, running east to west along Gaza's entire southern border with Egypt.

##### 1.2 We also found that:

- (a) The total area destroyed and cleared for the establishment of the four new elements above is 131.7 sq km, which constitutes 36% of the total area of Gaza. The buffer zone, the 'corridors', and the raid routes partially overlap.
- (b) The area destroyed and cleared for the buffer zone amounts to 55 sq km, which constitutes 15% of Gaza.
- (c) The surface area of the Netzarim corridor amounts to 35 sq km, which constitutes 9.6% of Gaza. The clearing of land for the corridor led to the destruction of five university buildings, a courthouse, a hospital, two resorts, a park, and a wastewater treatment facility.
- (d) The area of land cleared for the benefit of the raid routes constitutes 62 sq km.
- (e) The area of the expanded Philadelphi corridor amounts to 10.8 sq km.

## 2 Pattern findings

- <sup>116</sup> Israel's military campaign in Gaza between 7 October 2023 and 30 June 2024 involved the reshaping of the cultivated and built environment of the region through acts of **destruction** and **construction**. Large tracts of territory were cleared, including agricultural areas and buildings. In their place, the Israeli military constructed roads, temporary encampments, permanent bases, lines of fortification, and checkpoints. Our analysis found that these acts of destruction and construction were not haphazard, but followed consistent and clear spatial logic:
- 2.1 All agricultural fields, orchards, greenhouses, and other agriculture where the buffer zone, the corridors, and the raid routes were established have been destroyed. The construction of these new infrastructural elements has likely contaminated the soil, inhibiting future use (see Chapter 4: Destruction of Agriculture and Water Resources).
  - 2.2 The Netzarim corridor divides Gaza into two 'zones':
    - (a) The 'north', from which Israel ordered the evacuation of civilians
    - (b) The 'south', which includes 'destination areas' (see Section A (Glossary) in Chapter 3: Displacement)
  - 2.3 These zones are separated by checkpoints where Gaza's main north–south roads cross the Netzarim corridor.
  - 2.4 The Netzarim corridor and the checkpoints facilitate displacement:
    - (a) Movement between the zones mentioned is restricted and controlled by checkpoints.
    - (b) The checkpoints exclusively allow for one-way movement by civilians from the north to the south (see Chapter 3: Displacement) and aid from 'south' to 'north' (see Chapter 7: Targeting of Aid).
  - 2.5 Thirteen raid routes lead from the perimeter to the interior of Gaza. These routes facilitated repeated military incursions, and the extent of work invested in their construction suggests they may have long-term presence and be further employed for this purpose.
  - 2.6 The majority of buildings in areas where the buffer zone, the corridors, and the raid routes were established have been destroyed.
  - 2.7 The territorial reorganisation of Gaza is consistent with statements made by Israeli political leaders calling for a long-term Israeli military presence and the construction of permanent Jewish settlements in Gaza.<sup>58</sup>
  - 2.8 The territorial arrangement imposed on Gaza through the abovementioned elements is key to understanding other dimensions of Israel's military campaign, such as the destruction of agriculture, the displacement of civilians, and the targeting of aid in particular areas (see Chapter

<sup>58</sup> 'Israeli Ministers Join Ultranationalist Conference Urging Gaza Resettlement,' *Reuters* (29 January 2024) <<https://www.reuters.com/world/middle-east/israeli-ministers-join-ultranationalist-conference-urging-gaza-resettlement-2024-01-29/>> accessed 26 September 2024.; See also Appendix: Study of the relationship between Israeli public statements and Israeli military conduct in the occupied Gaza strip.

3: Displacement, Chapter 6: Destruction of Civilian Infrastructure, Chapter 4: Destruction of Agriculture and Water Resources, and Chapter 7: Targeting of Aid).

## Chapter 3 – Displacement

### 1 Quantitative findings

#### 1.1 The territory including destination areas and the ‘humanitarian zone’ shrank over time:

- (a) On 13 October 2023, this area included all of Gaza south of Wadi Gaza and covered 228.2 sq km (62.5%) of the total territory of Gaza.
- (b) On 7 January 2024, it included Rafah, Deir al-Balah and the al-Mawasi ‘humanitarian zone’, covering 80.7 sq km (22.1%) of Gaza.
- (c) On 6 May 2024, it shrank to include only the newly established ‘expanded humanitarian zone’, covering 60.9 sq km (16.6%) of Gaza.
- (d) On 16 August 2024, the ‘humanitarian zone’ contracted. The area covers 37.9 sq km (10.4%) of Gaza.
- (e) On 30 August 2024, three blocks have been reintegrated to the ‘expanded humanitarian zone’, expanding its extent to covering 47.4 sq km (13%) of Gaza.
- (f) The boundaries of the ‘humanitarian zone’ established from 18 October 2023 changed 9 times by 30 August 2024.

#### 1.2 Between 7 October 2023 and 31 August 2024, 84% of Gaza’s total area was subject to evacuation orders.

- (a) The 13 October evacuation order covered 37% of the total area of Gaza.
- (b) After the grid-based evacuation orders were introduced on 1 December, most areas in Gaza were ordered to evacuate at least once. Between 1 December 2023 and 31 August 2024, 72 percent of Gaza’s total area was subject to evacuation orders.
- (c) By 6 May, only 6.9 percent (25.3 sq km) of areas in Gaza, excluding the area of the ‘humanitarian zone’, had not received an evacuation order yet.
- (d) A total of 66 evacuation orders were issued between 7 October 2023 and 31 August 2024. Most orders refer to multiple blocks at a time.
- (e) According to data published by the UN, 346 schools were used as shelters, 70% of them were attacked.<sup>59</sup>

<sup>59</sup> ‘oPt Education Cluster - Schools Dashboard - Gaza 2023’ <<https://gis.unicef.org/portal/apps/dashboards/c6e0bfd744164b2f-84276071b1a83e78>> accessed 26 September 2024.

## 2 *Pattern findings*

2.1 The Israeli military has continuously attacked all areas of Gaza such that no place can reasonably be considered safe.

<sup>117</sup> The Israeli military has attacked:

- (a) Destination areas, including the 'humanitarian zone'
- (b) Israeli designated 'safe routes'
- (c) Undefined areas, including civilian shelters
- (d) Civilians from within evacuation areas

2.2 Destination areas have decreased in size, even as the displaced population has increased.

2.3 The Israeli military's use of evacuation orders has put civilians at risk by:

- (a) Issuing inconsistent and incomplete information about the 'humanitarian zone'
- (b) Issuing unclear and inconsistent evacuation orders
- (c) Instructing civilians to evacuate to areas that were attacked soon after
- (d) Issuing evacuation orders after having already begun military operations within the area in question
- (e) Issuing a sequence of evacuation orders that displaced civilians multiple times
- (f) Instructing civilians to displace to areas that had recently received evacuation orders
- (g) Failing to specify the duration or expiry of evacuation orders
- (h) Displacing civilians to destination areas that were previously targeted and destroyed

2.4 The Israeli military besieged displaced civilians and funnelled them into checkpoints where they were surveilled.

2.5 The Israeli military used 'protective measures' to displace Palestinians.

- (a) The Israeli military first directed the displacement of civilians from the north to the south of Gaza
- (b) The military then directed the displacement of civilians from the east to the west of Gaza

## Chapter 4 – Destruction of Agriculture and Water Resources

### 1 *Quantitative findings*

#### 1.1 Between 7 October 2023 and 30 June 2024:

- (a) Approximately 83% of all plant life in Gaza was destroyed.
- (b) Approximately 70% of Gaza's agricultural land, 104 sq km (out of 150 sq km) of fields and orchards, were destroyed.
- (c) More than 3,700 greenhouse structures in Gaza, 45% of its total, were destroyed.
- (d) More than 47% of groundwater wells and 65% of water tanks were destroyed or damaged. The status of 29% of the wells is unknown.
- (e) None of the wastewater treatment facilities in Gaza have remained intact or functional.

### 2 *Pattern findings*

#### 2.1 The Israeli military repeatedly destroyed agriculture and water resources across Gaza.

- (a) Month-by-month analysis in this period shows a correlation between the destruction of agricultural lands and infrastructure, and the Israeli military's ground position.
- (b) The destruction of agricultural lands and infrastructure was cumulative and repeated.
- (c) Agriculture and water resources were destroyed using military equipment and weapons.

#### 2.2 The Israeli military's conduct has likely caused contamination in Gaza's land and water resources.

## Chapter 5 – Destruction of Medical Infrastructure

### 1 Quantitative findings

- <sup>118</sup> As a result of the Israeli military campaign in Gaza, between 7 October 2023 and 1 August 2024:<sup>60</sup>
- (a) 35 of 36 hospitals in Gaza have gone out of service at one or more points during this time.<sup>61</sup>
  - (b) 31 of 36 hospitals have been targeted by Israeli military attacks.
  - (c) 11 of 36 hospitals have undergone a siege.
  - (d) 10 of 36 hospitals have been invaded by Israeli personnel.
  - (e) 5 hospitals have been besieged twice.
  - (f) 4 hospitals have been invaded twice.
  - (g) 1 hospital (Patient's Friends Society Hospital) has been attacked and forced out of service twice, having rebuilt and reestablished operations.
  - (h) 27 hospitals are within areas that received evacuation orders.<sup>62</sup>
  - (i) 4 field hospitals have been forced out of service and to evacuate.

---

<sup>60</sup> Many hospitals and field hospitals have been attacked multiple times and in different forms, and as such are accounted for in multiple categories of the quantitative findings.

<sup>61</sup> Whilst hospitals have been forced out of service, some hospitals have reestablished partial functioning after closure.

<sup>62</sup> This includes the 23 hospitals in northern Gaza that received evacuation orders on the 13 October 2023, as well as 19 evacuation orders and warnings directly to hospitals, that we have documented. 'Israel & OPT: Rescind Evacuation Order against Gaza Hospitals' (Amnesty International) <<https://www.amnesty.org/en/documents/mde15/7347/2023/en/>> accessed 26 September 2024.

## 2 *Pattern findings*

- 2.1 The Israeli military repeatedly targeted medical infrastructure across Gaza.
- (A) The Israeli military's targeting of hospitals follows a consistent and discernible pattern of five typically consecutive phases:
- (a) Evacuation orders and warnings (27 hospitals)
  - (b) Attacking the surroundings of hospitals (29 hospitals)
  - (c) Direct attacks on hospitals (31 hospitals)
  - (d) Putting hospitals under siege (11 hospitals)
  - (e) Invading hospitals (10 hospitals)
- (B) The Israeli military's attacking of hospitals correlates with the advancement and presence of Israeli ground forces:
- (a) The first hospitals in Gaza forced out of service by Israeli attacks were in areas into which the ground invasion first advanced
  - (b) The position of the Israeli ground forces correlates with where hospitals were subsequently forced out of service
  - (c) When large hospitals were attacked by Israeli ground forces, small hospitals in the surrounding area were often also attacked and forced out of service
- (C) Sites of medical infrastructure where healthcare services were (a) reestablished and (b) introduced were subsequently targeted by the Israeli military:
- (a) Hospitals where healthcare services reemerged endured subsequent attacks by the Israeli military
  - (b) Field hospitals introduced to support Gaza's healthcare system were closed due to Israeli military conduct
- 2.2 The timing of the Israeli military's attacks on hospitals correlates with the presence of displaced civilians at those hospitals
- 2.3 The Israeli military targeted medical personnel and facilities in a manner which causes damage to Gaza's medical system
- (A) Healthcare workers have been direct targets of the Israeli military, as opposed to being indirect casualties of attacks on hospitals.
- (B) The Israeli military destroyed and occupied hospitals even after they had been forced out of service and evacuated.
- (C) The Israeli military's targeting of hospitals caused damage to Gaza's maternity services.



## Chapter 6 – Destruction of Civilian Infrastructure

### 1 Quantitative findings

#### 119 Between 7 October 2023 and 6 July 2024:

120 Of 110 health facilities in Gaza:

- (a) 57% were attacked; 45 were damaged and 18 were destroyed (see Chapter 5: Destruction of Medical Infrastructure).

121 Of 353 shelters in Gaza:

- (a) 71% were attacked; 219 were damaged and 31 were destroyed (see Chapter 7: Targeting of Aid).

122 Of 605 utilities (power plants, water wells, desalination plants, and fuel stations) in Gaza:

- (a) 53% were attacked; 166 were damaged and 152 were destroyed, rendering them inoperable.

123 Of 564 education facilities – schools in Gaza:

- (a) 75% were attacked; 334 were damaged and 91 were destroyed.

124 Of 44 education facilities – universities in Gaza:

- (a) 81% were attacked; 18 were damaged and 18 were destroyed.

125 Of 45 government buildings in Gaza:

- (a) 82% were attacked; 17 were damaged and 20 were destroyed.

126 Of 341 religious institutions in Gaza:

- (a) 80% were attacked; 143 were damaged and 130 were destroyed.

127 Of 44 cultural heritage sites in Gaza:

- (a) 91% were attacked; 10 were damaged and 30 were destroyed.

128 During the two-month period from 5 May to 6 July 2024 in Gaza:

- (a) A total of 9,524 structures were destroyed.
- (b) This is more than double the number of structures destroyed in the previous two months (29 February to 5 May), when 4,225 structures were destroyed.

- (c) It also surpasses the earlier two-month period from 7 January to 29 February, when 8,899 structures were destroyed.
- (d) A total of 10,308 structures were damaged.
- (e) This is three times higher than the number of damaged structures in the previous period from 29 February to 5 May, which was 3,213.

129 An analysis of the road network shows that:

- (a) Between 7 October and 7 November 2023, 47.3% of the main roads were damaged in north Gaza, cutting off large parts of the population from critical infrastructure.
- (b) Between 7 October 2023 and 7 January 2024, 33.7% of the main roads were damaged in south Gaza, cutting off large parts of the population from critical infrastructure.

130 Please see chapter appendix for maps showing the spatial distribution of these findings across Gaza.

## 2 *Pattern findings*

131 Pattern findings of the attacks on civilian infrastructure are divided into two parts:

- (a) an analysis of the first three weeks of the aerial bombing campaign in Gaza.  
Time period: 7–28 October 2023  
Scale of analysis: daily
- (b) An analysis of the first ten months of Israel's military campaign in Gaza.  
Time period: 7 October 2023–6 July 2024  
Scale of analysis: monthly

132 Using both daily and monthly scales of analysis allowed us to observe the granular distribution of infrastructural destruction in space, while also identifying broader patterns across time. For further detail on this, please see 'Scope' in this report.

- 2.1 Our analysis of the first three weeks of the aerial bombing campaign in Gaza (7–28 October 2023) indicates:
- (A) The timing of the Israeli military's airstrikes on specific infrastructure correlates with the time at which a higher density of civilians would be expected to be present.
    - (a) Strikes on residential buildings happened more at night than during the day.
    - (b) Strikes on commercial spaces, including bakeries and markets happened more during operational hours than outside of operational hours.
  - (B) Israel's attacks south of Wadi Gaza increased after it ordered civilians from the north to evacuate to the south.
- 2.2 Our analysis of the first ten months of Israel's military campaign in Gaza (7 October–6 July) indicates:
- (A) Public infrastructure was destroyed even after it had been previously damaged, and when it was unlikely to be occupied.
  - (B) Areas in proximity to critical infrastructure were targeted:
    - (a) We observed repeated damage to service roads immediately surrounding critical infrastructure.
    - (b) We observed repeated destruction of buildings in the same vicinity, leading to accumulation of debris on the roads surrounding critical infrastructure.
  - (C) Repeated disruption of road networks isolated civilians in two ways:
    - (a) It was more difficult for civilians to leave areas in which infrastructure had been destroyed.
    - (b) It was more difficult for aid to reach civilians in those areas disconnected from the road network.

## Chapter 7 – Targeting of Aid

### 1 Quantitative findings

- 1.1 We documented 322 incidents of aid-targeting between 7 October 2023 and 16 September 2024. Of which:
- (a) 17 attacks were on bakeries
  - (b) 73 attacks were on shelters for displaced Palestinians, such as UNRWA-run schools, where food aid was received and distributed
  - (c) 60 attacks were on aid personnel
  - (d) 50 attacks were on civilians seeking aid – 37 of these occurred just north of the Netzarim corridor between January and March 2024. (More civilians were killed in attacks which we have classified as attacks on other targets.)
  - (e) 78 attacks were on aid infrastructure, such as warehouses and water treatment facilities
  - (f) 22 attacks were on convoys of trucks transporting aid through Gaza, which were coordinated by humanitarian aid organisations
  - (g) 6 attacks were on aid convoys en route to Gaza through Israel or the occupied West Bank, carried out by Israeli vigilantes during May 2024
  - (h) 16 attacks were on markets where aid was being obtained by civilians
  - (i) At least 17 of the attacks on aid personnel, convoys, and infrastructure targeted sites involved in operations that had been officially coordinated with Israel and recognised as ‘deconflicted sites’, understood to be exempt from Israeli military targeting, or ‘safe’.
- 1.2 We documented the following attacks on aid sites and systems operated by UNRWA:
- (a) Among the attacks on aid personnel, convoys, and infrastructure, at least 39 were on UNRWA personnel, facilities, or vehicles.
  - (b) In total, 195 UNRWA personnel were killed, including 177 staff members and 18 other aid workers.
  - (c) Another 40 UNRWA staff members have been detained by the Israeli military.

## 2 Pattern findings

- 2.1 Our analysis indicates that the Israeli military targeted sites and systems of aid distribution when and where they became the main mode of aid facilitation. We observed that this targeting followed a pattern of overlapping phases, during which attacks on the specified aid categories intensified:
- (a) **October–November 2023: Bakeries** in the north of Gaza were targeted when they played a critical role in aid distribution, **during October and early November 2023**. By mid-November, there were no official bakeries still in operation in Gaza City.
  - (b) **October 2023–January 2024: Shelters** were targeted when they assumed a central role in housing people displaced by Israeli attacks, and facilitating the receipt and preparation of food aid, **from 13 October to December 2023**.
  - (c) **December 2023–February 2024: Palestinian police officers**, who we categorise as **aid personnel**, were targeted when they played a critical role in escorting aid convoys.
  - (d) **January–March 2024: Civilians** were targeted when gathering to receive aid from aid trucks that passed through the Netzarim corridor checkpoints into northern Gaza **from January to March 2024**.
  - (e) **March 2024: Aid administrators** from Palestinian organisations and groups that took up responsibility for facilitating aid delivery and distribution, who we categorise as **aid personnel**, were targeted when they began to play a prominent role **in March 2024**. Attacks on these personnel and organisations were extensive and deadly enough to eliminate their key administrators or otherwise force them to cease operating.
  - (f) **October 2023, December 2023, and May 2024: Aid distribution and storage sites**, including warehouses and markets, were targeted when they were actively operating to supply civilians with food, with severe attacks on Rafah crossing, Karem Abu Salem/Kerem Shalom crossing, and markets during periods of increased aid-entering.
  - (g) **May 2024: Israeli vigilantes** attacked aid convoys passing through Israel and the occupied West Bank under the watch and sometimes with direct support of Israeli military personnel.
- 2.2 The periods after which Israel increased the flow of humanitarian aid into Gaza (late December 2023; late March and early April 2024; early May 2024) coincide in time and space with an increase of Israel's targeting of the means of distributing that aid, including the logistics, personnel, and infrastructure necessary.
- 2.3 The targeting of aid occurred in tandem with the Israeli military's evacuation orders and coincides with its attempts to force Palestinian civilians to displace from the north of Gaza. The construction of the new internal border in the Netzarim corridor and the checkpoints within it supporting a one-way (north to south) movement of civilians coincided with the restriction of aid as a means of displacement.