

CIVILIAN IMPACT MONITORING PROJECT

THEMATIC REPORT: THE THREAT TO CIVILIANS FROM EXPLOSIVE ORDNANCE

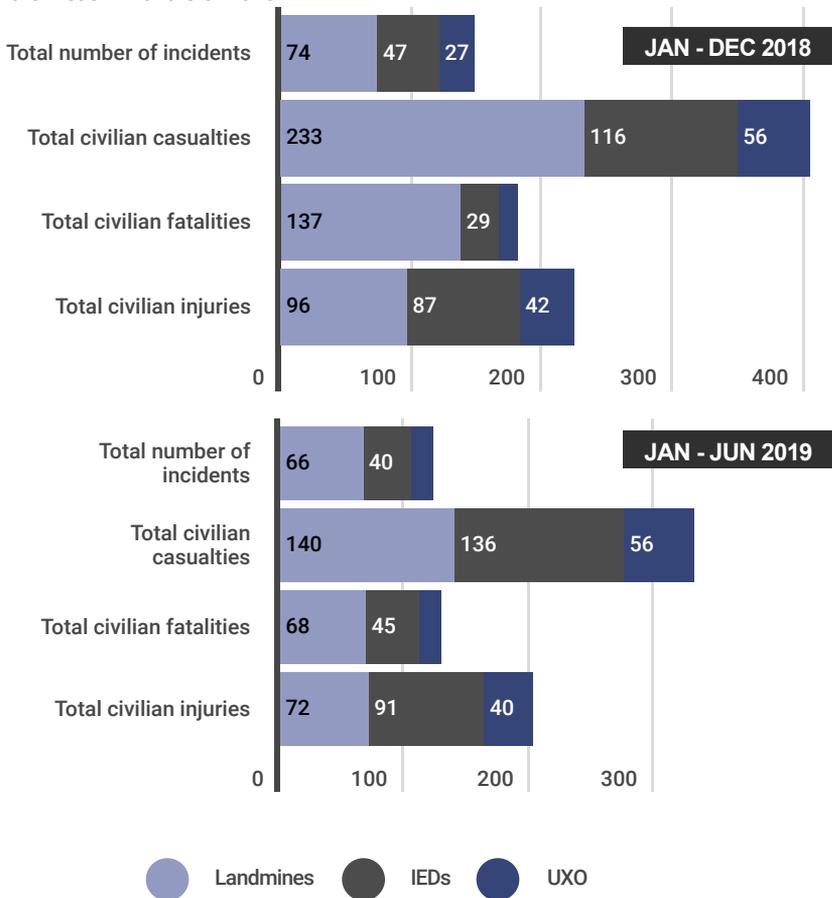
DATE OF PUBLICATION: AUGUST 2019

On a daily basis, civilians are harmed as a direct result of armed violence, as the ongoing conflict persists. While direct clashes remain largely concentrated to the active frontlines, seeing occasional surges and flare-ups in new locations, away from the frontlines, remnant explosive ordnance such as landmines and IEDs, and other UXO, continues to cause civilian casualties on a regular basis, as the legacy of armed violence is evident not only in active but also dormant hotspots.

The following thematic report provides an overview of the direct impact of EO on civilians across Yemen. The report groups IEDs, landmines and UXO together under the commonly accepted title of explosive ordnance, as victim-activated munitions may be referred to in different ways in open source reporting, thus the lines between landmine, IED and UXO incidents are not always definite. The report provides temporal comparisons of the data in 2019 compared to that during 2018, to show that the situation is worsening. It provides an analysis of the geographic and demographic trends in casualties, the type of civilian structures impacted in incidents caused by landmines, IEDs and UXO, while also addressing any correlation with active conflict. It is noted that children are particularly susceptible to harm from EO, and that the situation is worsening.

OVERALL FIGURES

2018 saw a total of 405 civilian casualties as a result of 148 landmine, IED and UXO incidents, of whom almost half, 180 (44%), died. The first six months of 2019 saw 123 such incidents, causing 332 civilian casualties, of whom 129 (39%) died. The graphs below show incidents, casualties and fatalities in all of 2018 compared to the first six months of 2019.



DIRECT COMPARISON - FIRST SIX MONTHS

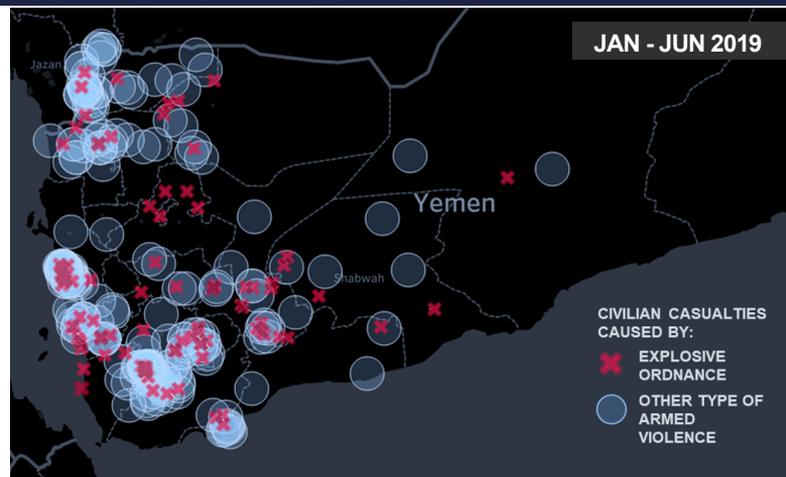
2018 01 JAN - 30 JUNE	2019 01 JAN - 30 JUNE	% CHANGE
Casualties: 174 Children: 33 Women: 20	Casualties: 332 Children: 102 Women: 26	+ 90% + 209% + 30%
Fatalities: 84 Children: 13 Women: 11	Fatalities: 129 Children: 35 Women: 15	+ 54% + 169% + 36%
Injuries: 90 Children: 20 Women: 9	Injuries: 203 Children: 67 Women: 11	+ 125% + 235% + 22%
Incidents: 57	Incidents: 123	+ 115%

Civilian casualty rates from explosive ordnance during the first six months of 2019 are almost double the figures seen during the same time period in 2018. The most notable increases have been seen among child casualty rates, which on average have almost tripled. All country-wide casualty and incident figures have shown an increase across the comparative time periods.

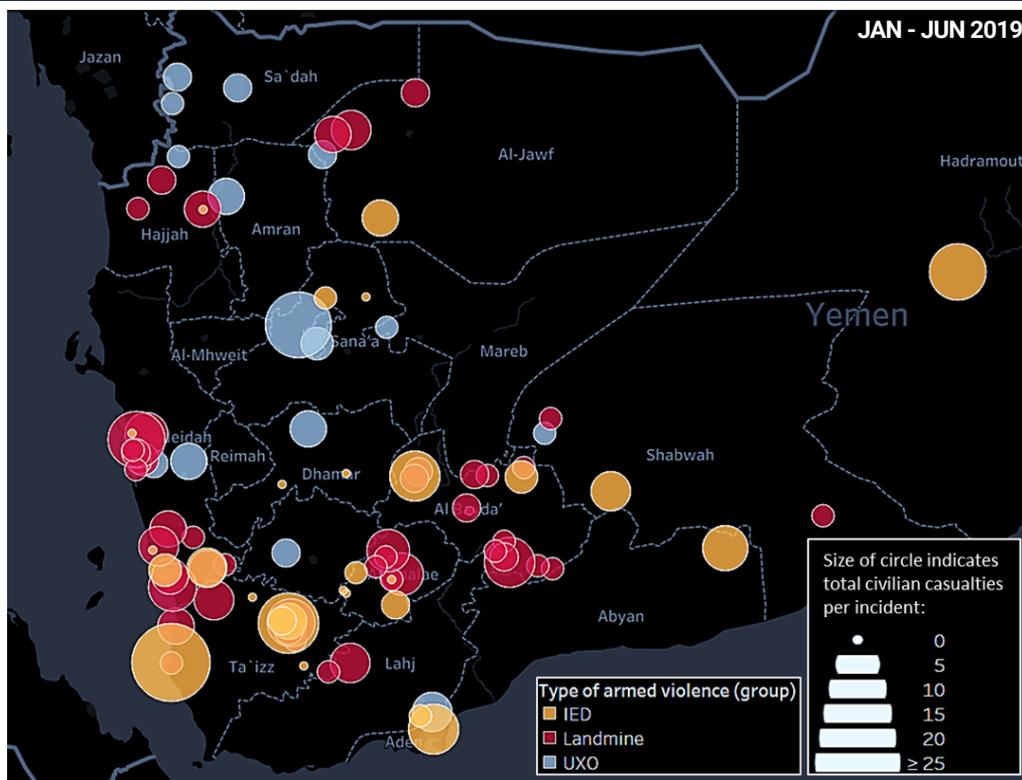
Furthermore, the first 6 months of 2019 have already seen 83% of the number of incidents, and 82% of the number of civilian casualties as seen during 12 months in 2018.

GEOGRAPHIC DISTRIBUTION OF CIVILIAN CASUALTIES FROM EXPLOSIVE ORDNANCE

The map shows the distribution of casualties caused by EO, mapped over casualties caused by other types of armed violence, including airstrikes, shellfire and fire from small arms and light weapons. There is a strong correlation between the two, with the density in incidents corresponding closely with the three main fronts in the conflict; on the west coast in Al-Hudaydah, in the northern border governorates or Hajja and Sa'ada, and on the southern fronts running through Taiz, Al-Bayda and Al-Dhale. Away from the main fronts, there is also a cluster of EO incidents reported to have caused civilian casualties around the capital city, as EO poses a threat on both active and dormant frontlines. By contrast, the eastern parts of the country, have seen significantly fewer reports of casualties as a result of EO.

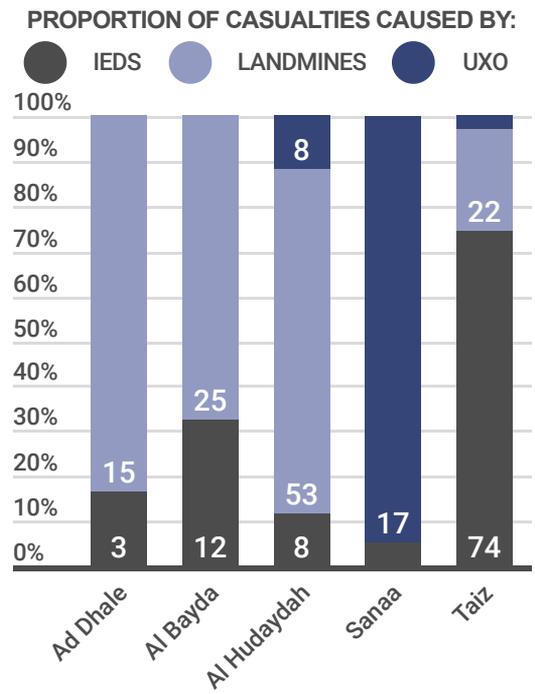
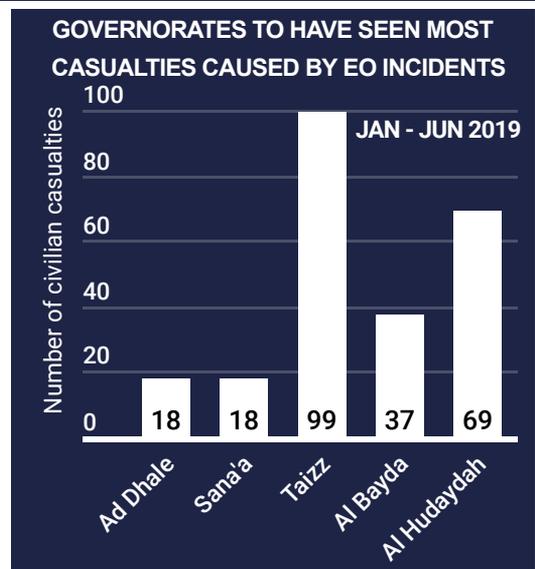


GEOGRAPHIC DISTRIBUTION OF LANDMINE, IED AND UXO INCIDENTS

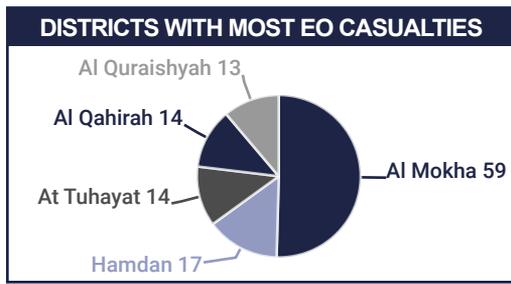
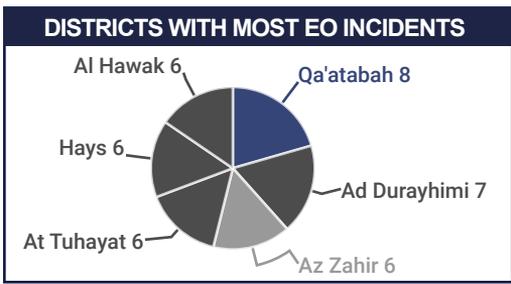


The map shows that landmine incidents were largely concentrated in or near current frontline areas, including in Al-Hudaydah, Al-Bayda, Taiz and Al-Dhale governorates. However, the average casualty toll per landmine incident was lower than for IEDs and UXO. On average, 2 civilians were injured or killed in each landmine incident reported to have directly harmed civilians during the first six months of 2019. UXO, meanwhile, although further from the frontlines, resulted in an average of 3 civilian casualties per incident, while IEDs caused on average twice as many, at 6 civilian casualties per incident. Local environmental factors, such as population density, are likely to heavily impact the civilian casualty toll.

Al-Hudaydah, which continues to see the highest rate of hostilities impacting on civilians, saw the greatest impact from EO during the first six months of the year in terms of incident numbers. However, the highest casualty toll was reported in Taiz, which saw the third highest incident rate. The charts below reinforce the divergence between incident rates and casualty toll, with the chart on the left showing the districts with the highest EO incident rates in the first six months of 2019, and the chart on the right showing the highest civilian casualty tolls.



Taiz and Al-Hudaydah saw the highest civilian casualty rates from EO altogether. However, the impact of different EO on civilians varies geographically. Landmines were responsible for more than two thirds of civilian casualties in each of Al-Hudaydah, Al-Dhale and Al-Bayda, yet UXO caused all but 1 of the EO civilian casualties in Sana'a, while 75% of EO civilian casualties in Taiz were on account of IEDs, as discussed below.



SNAPSHOT EXAMPLES OF THE INCIDENTS DRIVING THE STATISTICS

Case study 1: UXO in Sana'a

UXO has the propensity to impact civilians away from the main frontlines. In an incident in Sana'a on 3 April, 2 children were killed and 15 others were injured when UXO reportedly exploded on the premises of a school in Hamdan, serving as a pertinent reminder of the lasting legacy of explosive remnants of warfare, even in relatively calm areas. 45 (80%) of the 56 civilian casualties caused by UXO in the first half of 2019 were children, their susceptibility likely heightened due to natural inquisitiveness.

Case study 2: Landmines in Al-Bayda

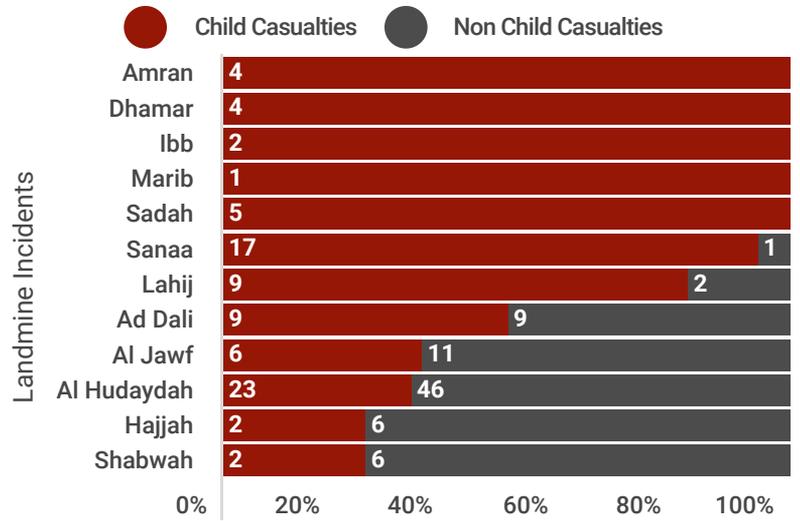
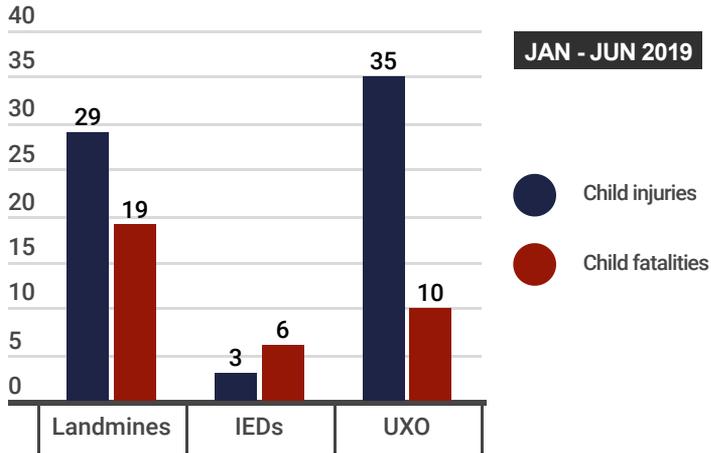
Compared to 2018, Al-Bayda saw the civilian casualty toll from EO increase fivefold in the same period in 2019, from 7 to 37, 25 (67%) of whom were caused by landmines. Half of these were reported in Az Zahir, coinciding with a recent flare in hostilities in the governorate. 34% of civilian casualties in Al-Bayda in the the first six months of 2019 were caused by landmines alone.

Case study 3: IEDs in Taiz

The port city of Al-Mokha, in Taiz, saw 2 IED incidents, just 3 weeks apart, impacting on civilians. The first, on 28 January, killed 6 civilians and injured 36 when a WBIED exploded near a cafe. On 14 February, a second WBIED, this time in a market, killed 4 civilians and injured 8. A further 14 civilian casualties were reported in another 2 IED incidents in Taiz Old City, on the busy Jamal Street, on 4 March and 12 May. From IEDs alone, Taiz saw 74 civilian casualties; over half (55%) of the country-wide total from IEDs.

IMPACT ON CHILDREN OF EXPLOSIVE ORDNANCE

Children are particularly vulnerable to harm from landmines, IEDs and UXO. During the first six months of 2019, 1 in 4 fatalities from such incidents was a child, and every 1 in 3 civilians reported to have been injured by EO were children. In 2018, of 405 civilian casualties caused by EO, 73 (18%) were children. This has leapt dramatically in 2019, seeing child casualties making up 31%, 102, of the casualty toll during the first six months of the year. By 15 May, 2019 had already seen more child casualties than during all of 2018. Landmines have been responsible for the most child casualties, at 48, with a mortality rate of 40%, followed by UXO, in which 1 in 5 children to have been injured have died. IEDs have caused the fewest child casualties, but 67% of these have died from their injuries.

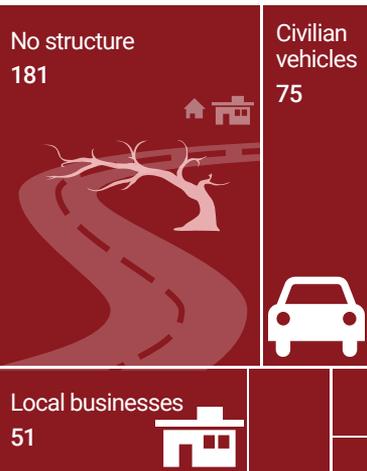


In some parts of the country, children's vulnerability to explosive ordnance has been particularly notable, on account not of total figures but proportions. For instance, in 5 governorates, 100% of civilian casualties to have been caused by EO in the first six months of 2019 were children: in Sa'ada (5), Marib (1), Ibb (2), Dhamar (4), Amran (4), Ibb (2) and Marib (1). Meanwhile in Sana'a, 17 (94%) of the civilian casualties from EO in the first half of 2019 were children, and in Lahj, 9 (82%) were children. The chart above shows the 12 governorates in which at least 1 in 4 civilian casualties from EO were children. Al-Hudaydah continues to see the highest child casualty rates, with 23 children reportedly injured by explosive ordnance in the first half of 2019, 18 of whom were as a result of landmines.

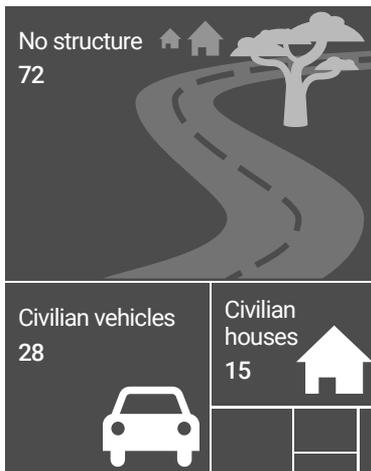
SNAPSHOT OF IMPACT OF EO ON CIVILIAN STRUCTURES

The following section discusses the impact on civilians according to what type of civilian structure was impacted in the incident, looking at incidents from 1 January to 30 June 2019. The majority of incidents of EO to have impacted on civilians were victim-triggered, impacting on civilians in open ground and travelling in vehicles.

NUMBER OF CIVILIAN CASUALTIES BY STRUCTURES IMPACTED IN EO INCIDENTS



NUMBER OF EO INCIDENTS IMPACTING ON DIFFERENT CIVILIAN STRUCTURES



In cases where 'no structure' is reported, this indicates that an incident has resulted in direct harm to a civilian, but not in the immediate vicinity of civilian property or infrastructure. The category might cover civilians who are walking on roads, or on open ground, whether in urban or rural areas. The risk of exposure to armed violence when in open ground can be heightened, due to the lack of protection. Any incident to harm civilians in open ground is assessed to pose restrictions to freedom of movement, as civilians cannot move safely in areas with suspected EO contamination. EO incidents in the first half of 2019 are estimated to have directly restricted freedom of movement for at least 223 households.

72 EO INCIDENTS IMPACTED ON CIVILIANS IN OPEN GROUND

- 181 civilians were harmed by EO in open ground, 75 (41%) of whom died.
- Of the casualties, 1 in 3 (35%) were children.
- 57% of incidents to impact on civilians in open ground, and 44% of the resulting casualties, were caused by landmines.

28 EO INCIDENTS IMPACTED ON CIVILIAN VEHICLES

- 75 civilians were harmed by EO incidents that impacted on civilian vehicles, of whom 34 (45%) died.
- 1 in 3 of the fatalities (29%) was a child.
- 82% of EO incidents to impact on civilians in vehicles were caused by landmines, and 76% of the resultant casualties.

2 INCIDENTS IMPACTED ON CIVILIAN BUSINESSES

- In just 2 incidents, both caused by landmines 51 civilians were harmed when EO impacted on civilian businesses, of whom 29% died.
- The vast majority (42) of the casualties were caused by one incident in Taiz.
- The incident in Taiz was not victim-triggered.

15 EO INCIDENTS IMPACTED ON CIVILIAN HOUSES

- 5 civilians were harmed in EO incidents impacting on houses.
- IEDs were responsible for 87% of these incidents, as house detonations are a common intimidatory tactic, but often do not result in civilian casualties.



CIVILIAN IMPACT MONITORING PROJECT
a service of the Protection Cluster Yemen

The Civilian Impact Monitoring Project is a service under the United Nations Protection Cluster for the collection, analysis and dissemination of open source data on the civilian impact from armed violence in Yemen, to inform and complement protection programming.

For further information, please visit www.civilianimpactmonitoring.org.