

Humanitarian consequences of explosive weapons – immediate and long-term impact of Explosive Ordnance contamination

Syria is marked by the intense use of **Explosive Weapons in Populated Areas (EWIPA)**, leaving extremely high levels of **explosive ordnance (EO) contamination**, including landmines, improvised explosive devices (IEDs), and cluster munitions. One in two people in Syria are at risk of EO⁽¹⁾ and it will take **generations for Syria to be safe from these weapons**.

EO contamination causes **injury, death and psychological trauma** throughout Syria every day. Between November 2018 and February 2020, at least 12,000 people were victims of explosive ordnance - over a third of whom died and a quarter of whom are children.⁽²⁾ Many deaths have not been recorded but since the start of the conflict at least 77,500 civilians have been killed or injured due to explosive violence. 91% of civilian deaths and injuries occurred in populated areas.⁽³⁾

Contamination with EO also leads to **inadequate health and rehabilitation services and socio-economic deprivation** that are prohibitive to return. For example, the 'battle for Raqqa' in 2017 displaced **270,000 people**,⁽⁴⁾ and an estimated 80% of the city was destroyed,⁽⁵⁾ with shelling and bombing destroying hospitals and clinics in the city.⁽⁶⁾ In 2020 the escalation in hostilities in Idlib displaced over 900,000 people and added yet more EO contamination, while hostilities in late 2019 in northeast Syria resulted in both new contamination and recontamination with EO of areas previously cleared by humanitarian mine action operators.⁽⁷⁾

EO contamination, injury and death can only be prevented through a long-lasting ceasefire across Syria and **comprehensive Humanitarian Mine Action (HMA)**. HMA has five pillars: land release, EO risk education (EORE), victim assistance (VA), stockpile destruction and advocacy.

There is an immediate need to scale up **land release, EORE and VA**. For example, research conducted among **survivors of explosive hazards** in 2018 showed that **95% had not received risk education** prior to the accident.⁽⁸⁾ Scaling up HMA activities requires **funding**: as of August 2021 the HMA cluster for Syria had only received 16% of the requested USD 77 million funding.

Urgent Concerns

The Immediate Impact of Blast Injuries

There are four basic mechanisms through which an explosive weapon can cause harm to the human body:

- **Primary Blast Injury**: caused by **shock wave** that leads to **fragmenting and shearing of tissue in air-filled organs**, like the ears, lungs, stomach and intestines, and **organs that are surrounded by fluid**, like the brain;
- **Secondary Blast Injury**: caused by **flying fragments or debris**;
- **Tertiary Blast Injury**: caused by the **supersonic wind** which can pick up and throw anyone close enough to the explosion;
- **Quaternary Blast injury**: injuries indirectly caused by the explosion, such as **burns, crush injuries and choking** caused by asphyxiating dust.⁽⁹⁾

Not captured in this classification, however, is the **psychological impact for survivors**, the families of those killed or injured, and affected communities:

- **27% of households** report signs of psychological distress in boys and girls.⁽¹⁰⁾
- A large survey of 25,000 Syrians treated by a health

1. UN OCHA, 'Humanitarian Needs Overview Syrian Arab Republic', March 2021, https://reliefweb.int/sites/reliefweb.int/files/resources/syria_2021_humanitarian_needs_overview.pdf.

2. UNMAS, 'Facts & Figures Victims of Explosive Ordnance Accidents in Syria', May 2020, https://unmas.org/sites/default/files/unmas_syria_facts_figures_may_20.pdf.

3. Action on Armed Violence, 'Syria', <https://aoav.org.uk/explosiveviolence/syria/>.

4. UNHCR, 'Growing concerns for Syrian civilians amid intense fighting in Al Raqqa and Deir ez-Zor', 13 October 2017, <https://www.unhcr.org/news/briefing/2017/10/59e07b5d4/growing-concerns-syrian-civilians-amid-intense-fighting-al-raqqa-deir-ez.html>.

5. Amnesty International, 'Syria: Thousands of digital activists to track how US-led air strikes destroyed Raqqa', November 2018, <https://www.amnesty.org/en/latest/press-release/2018/11/syria-thousands-of-digital-activists-to-track-how-us-led-air-strikes-destroyed-raqqa/>.

6. Physicians for Human Rights, 'Heavy Bombardment by U.S. and Coalition Forces Devastate Hospitals in Raqqa', <https://phr.org/issues/health-under-attack/attacks-in-syria/heavy-bombardment-by-u-s-and-coalition-forces-devastate-hospitals-in-raqqa/>.

7. UN OCHA, '2020 Humanitarian Response Plan Syrian Arab Republic', <https://reliefweb.int/sites/reliefweb.int/files/resources/Syrian%20Arab%20Republic%20-%20Humanitarian%20Response%20Plan%20%28December%202020%29.pdf>.

8. UNMAS, Victims of explosive hazard accidents in Syria – Factsheet, 2018.

9. Centers for Disease Control and Prevention, 'Explosions and Blast Injuries: A primer for clinicians', 2019.

10. UN OCHA, 'Humanitarian Needs Overview Syrian Arab Republic', March 2021, https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/syria_2021_humanitarian_needs_overview.pdf.

Testimony from someone who suffered as a result of mine contamination, and was supported by humanitarian organisations

"We saw that more and more people were going back to Raqqa so we decided it was time to go home too.

At the time, I didn't know how contaminated our neighbourhood was. But when we came back to our neighbourhood, we found our house completely destroyed, like thirty other ones.

There were no more walls or a roof so we set up a small camping site in our old courtyard, in which we could live for the time being. On that day, my kids were playing around the courtyard and all of a sudden, a mine exploded in the ground. Two of my sons, Ali (5 years old) and Omar (2 years old), died instantly. Rafif (3 years old) was severely injured.

We were brought to the Trauma Stabilization Point (TSP) in Raqqa and then to the hospital outside of the city. Doctors immediately operated, Rafif underwent five surgeries in the same week. Every day at the hospital, we see between 50 and 60 new people, injured by mines and IEDs, being brought to the hospital.

People want to go back home, because where do you want them to live? Usually, when they return, their house is completely destroyed so they just arrange one of the rooms as they can and sleep in it. But everything is booby-trapped. I know so many people to whom it happened. It's the same story, over and over. The same thing happened to our neighbours."

NGO in Syria showed that just **over half** of those treated had been injured by explosive weapons, and **four out of five** of these survivors expressed high signs of **psychological distress**.⁽¹¹⁾

■ **Three-quarters** of people with mental health conditions receive no treatment at all, and the COVID-19 pandemic is further aggravating the situation.⁽¹²⁾

Long-term Humanitarian Consequences of Explosive Weapons and EO Contamination

■ Widespread EO **contamination** is the result of **intense use of explosive weapons in populated areas** in Syria, including repeated use of **landmines, cluster munitions and other banned weapons**.⁽¹³⁾

■ Improvised Explosive Devices, including **booby traps and improvised landmines are particularly unpredictable** and difficult to detect, consequently increasing the threat they pose to civilians.

■ In 2020, there were on average **76 explosive incidents** per day.⁽¹⁴⁾

■ While all population groups are at risk, **children - especially boys -, agricultural workers and displaced persons** are particularly vulnerable to being injured or killed by EO. Nearly a quarter of victims of EO accidents are children, with **four out of ten child victims** dying as a result of their fatalities.⁽¹⁵⁾

■ **Two-thirds of EO accidents survivors** have life-changing injuries, including the amputation of a limb.⁽¹⁶⁾

■ The use of EWIPA also has a devastating effect on people's living environment, and their access to services:

- **A third of schools and houses** have been **damaged or destroyed** and **nearly half of health facilities are not fully functional** due to hostilities;⁽¹⁷⁾

- **Aleppo** has the highest number of damaged or destroyed infrastructure, followed by **Eastern Ghouta, Homs and Raqqa**, while **Hama** has both the highest number and density of destroyed infrastructure.⁽¹⁸⁾

All locations experienced heavy aerial bombardment, leaving **roads, housing, schools, health centres, and water and sanitation systems** either destroyed or rendered non-functional;

- At least **50% of Syria's sewage systems were rendered non-functional** by hostilities, exposing Syrian people in those areas to significant health risks;⁽¹⁹⁾

- Lost access to productive land for livelihoods and settlement **reinforces poverty, further destabilises communities and undermines opportunities for recovery**.

Minimum Prerequisites for Safe and Dignified Return

■ **Humanitarian actors cannot ensure that the conditions for safe and dignified return for IDPs and refugees are met** unless they have full and unfettered access to locations contaminated by EO.

■ **Technical explosive hazards surveys** are required to

11. Humanity & Inclusion, 'The Waiting List', 2019, https://humanity-inclusion.org.uk/sn_uploads/document/the-waiting-list-report-Humanity-Inclusion-2019.pdf.

12. WHO, 'Syria: WHO-supported mobile teams deliver mental health care in Syria', 14 October 2020, <https://www.who.int/news-room/feature-stories/detail/syria-who-supported-mobile-teams-deliver-mental-health-care-in-syria>.

13. Mine Action Review, 'Clearing Cluster Munition Remnants', 2019, http://www.mineactionreview.org/assets/downloads/Syria_Clearing_Cluster_Munition_Remnants_2019.pdf.

14, 15, 16. UN OCHA, 'Humanitarian Needs Overview Syrian Arab Republic', March 2021.

17. UNICEF, 'After almost ten years of war in Syria, more than half of children continue to be deprived of education' 24 January 2021, <https://www.unicef.org/press-releases/after-almost-ten-years-war-syria-more-half-children-continue-be-deprived-education>; World Bank, 'The Visible Impacts of the Syrian War May Only be the Tip of the Iceberg', 10 July 2017, <https://www.worldbank.org/en/news/press-release/2017/07/18/the-visible-impacts-of-the-syrian-war-may-only-be-the-tip-of-the-iceberg>; WHO, HeRAMS Bi-Annual Report - Public Hospitals in the Syrian Arab Republic, January - June 2020, <https://applications.emro.who.int/docs/syrl-FMRLIBSYR257E-eng.pdf?ua=1>.

18. REACH, 'Syrian Cities Damage Atlas', 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/reach_thematic_assessment_syrian_cities_damage_atlas_march_2019_reduced_file_size_1.pdf.

19. UN OCHA, 'Humanitarian Needs Overview Syrian Arab Republic', 2019, <https://hno-syria.org/syria-who-supported-mobile-teams-deliver-mental-health-care-in-syria>.

further assess and understand the threats, determine clearance priorities and inform the population and humanitarian actors in affected areas. **Marking and removal** of explosive hazards is required on the roads

and in areas of potential return and humanitarian intervention. This work requires time due to the **improvised, diverse and widespread** nature of the contamination.

Recommendations

To parties to the conflict:

- **Stop the use of explosive weapons** with wide area effects in populated areas;
- Immediately abide by international humanitarian law and UN Security Council Resolution 2286 (2016), which specifically refers to the **bombing of hospitals and health facilities**;
- **Support full and unfettered humanitarian access** for all international and national NGOs, regardless of the communities they serve and current modalities and areas of operation. Further, the protection of humanitarian actors, in particular local staff, should be prioritised and reaffirmed as an essential component of humanitarian access, to ensure the continuity of the service delivery;
- Create an **enabling environment for organisations that conduct mine clearance activities, risk education sessions and victim assistance programs**, including by ensuring rapid **registration**;
- Build sustainable community knowledge through **awareness and education** about the risks posed by the use of conventional weapons, including unexploded ordnance;
- Ensure that **mitigation and containment measures** related to COVID-19 allow critical humanitarian activities to continue and that **NGO permissions and staff movement** are facilitated in an expedited fashion.

To donors and UN agencies:

- Recognize that **humanitarian mine action is a prerequisite to any immediate or long-term recovery**, and ensure that humanitarian mine action activities are more strongly integrated into other sectors in Syria, including early recovery and resilience programming;
- Commit humanitarian funding to **fully meet existing funding needs and significantly scale up mine action activities**, i.e. risk education, victim assistance, technical and non-technical surveys, clearance of mines and explosive remnants of war and advocacy;
- **Include resources in calls for proposals** that focus on the **effects of the use of explosive weapons** and better **data collection, monitoring and reporting** measures on affected populations, in a gender, age and disability inclusive manner;
- Encourage the use of a **comprehensive mine action**

approach that includes:

- **risk education** about the dangers of explosive weapons and risk mitigation measures;
- **victim assistance that offers** multi-disciplinary health services, i.e. **physical & functional rehabilitation**, prosthesis and orthotics (P&O) services, provision of assistive devices, **psychosocial support (PSS)**, and **socio-economic support** through emergency distributions and livelihood activities;
- **clearance**;
- Require that recipients of mine action funding (including any sub-grantees/sub-contractors) conduct their activities in line with the **International Mine Action Standards and humanitarian principles**, and mainstream a **gender, age and disability perspective**.

To UN Security Council:

- Ensure that **paragraph 11 of United Security Council Resolution 2401** (2018) which 'calls for humanitarian mine action to be accelerated as a matter of urgency throughout Syria', reiterated in paragraph 25 of S/RES/2449 (2018), is **implemented immediately**.

To UN Member States:

- Loudly and publicly **condemn the continuous use of explosive weapons with wide area effects in populated areas**, in addition to the targeting of schools and hospitals where civilians are especially likely to be injured and killed;
- Actively participate in the **process towards a political declaration** to end the harm caused by explosive weapons in populated areas that was launched in Vienna on the 1 October 2019, and that **aims to commit States to developing operational policies and procedures to avoid the use of explosive weapons with wide area effects in populated areas and to provide assistance to victims and recognise their rights**. So far, more than 70 States have been involved in drafting the political declaration against the use of explosive weapons in populated areas, and more than 100 states, several multilateral organizations, as well as UN Secretary-Generals and ICRC have expressed concerns over humanitarian consequences caused by the use of **explosive weapons in populated areas**.



This document covers humanitarian aid activities implemented with the financial assistance of the European Union. The views expressed herein should not be taken, in any way, to reflect the official opinion of the European Union. The European Union is not responsible for any use that may be made of the information it contains.