



Report Summary | May 2022

Explosive ordnance in Syria: impact and required action

Explosive ordnance (EO) puts one in two people in Syria at risk of death and injury and impedes the delivery of crucial humanitarian assistance.⁽¹⁾ However, the extent of EO in Syria and its devastating impact is not sufficiently known or discussed among donors and humanitarian actors. International humanitarian mine action (HMA) actors operating in Syria for over ten years have come together to address this gap, sharing data and insight from their work on the ground.

They produced a report to highlight the extent of EO contamination in Syria; its devastating impact on people, vital infrastructure and provision of humanitarian assistance; the crucial activities performed by humanitarian mine action (HMA) actors; and the action required to address this issue. The main findings of this report are summarised below.

Explosive ordnance contamination in Syria

After 11 years of war, the use of explosive ordnance in Syria – including through air and artillery strikes with rockets and mortars, and improvised explosive devices (IEDs) and landmines – has killed, injured, traumatised, and displaced the civilian population. Further, it has destroyed civilian infrastructure and impeded access to humanitarian assistance.

It is estimated that between **100,000 and 300,000 EO have failed to detonate in Syria**, therefore posing an active threat of explosion in contaminated areas.⁽²⁾ This contamination is in addition to the widespread use of IEDs and landmines, including those of an improvised

“Contamination in Syria is massive. And when we say it is massive, I think it is the worst country in the world in terms of people injured by explosive weapons. It’s huge.”

Mine action expert in Syria.

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. The Carter Center Data and Analysis Team, ‘A Call for Action – Data On Unexploded Ordnance in Syria & Its Implications. December 2012 – May 2021’, March 2022, <https://storymaps.arcgis.com/stories/41d3dcd5c2b3451795d6c4bdf0ca46f6>.

nature, designed and placed to impede military advances and harass, frighten and deny access to the civilian population. Further, there is also new contamination as a result of ongoing hostilities. In 2022, extensive bombing and shelling continues in northwest and northeast Syria, in addition to widespread violence across the country through missile and drone strikes, use of vehicle-based improvised explosive devices, and small fire arms and light weapons.

Intensity of incidents

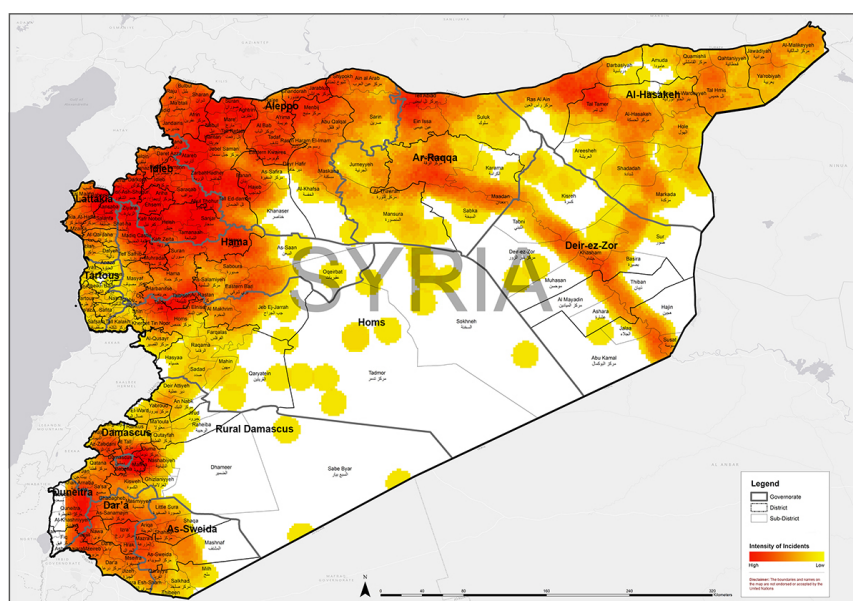


Figure 1 – Map of Syria showing conflict intensity. Areas in red = increase accidents of conflict. © UNMAS.

Impact of explosive ordnance blasts on humans

EO causes injury, death and psychological trauma every day throughout Syria. Moreover, it leads to socio-economic deprivation and an increased need for health, rehabilitation services, and mental health and psycho-social support services (MHPSS). It also impedes early recovery programming, and is the main access constraint for the safe and effective delivery of humanitarian assistance.⁽³⁾ EO contamination is also a barrier to the return of internally displaced persons (IDPs) and refugees. For example, a quarter of EO casualties⁽⁴⁾ in the last five years are IDPs and 16% of returnees are apprehensive over risks posed by EO in their return locations across Syria.⁽⁵⁾

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

4. 'Casualties' refers to those people who suffered an accident with EO. The term 'direct victim' can also be used. This report uses casualties.

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

Given the extreme levels of EO, it is therefore no surprise that in 2020 there were an average of **76 recorded EO accidents per day, equivalent to one every 20 minutes**,⁽⁶⁾ and that one in two people in Syria are estimated to be at risk from EO contamination. This amounts to over **10 million people**⁽⁷⁾ – about the size of the population of Jordan, Portugal or Sweden.

The majority of recorded accidents happened in Idlib and Aleppo governorates in northwest Syria. Although the actual number of EO-related casualties and injuries is unclear due to limitations in data collection,⁽⁸⁾ it appears that across Syria, men and boys are most impacted. Over a third of EO casualties died, with one in three survivors⁽⁹⁾ suffering an amputation of a limb, and two in three sustaining a lifelong impairment.⁽¹⁰⁾ Children are more likely to die from an EO accident than adults, with 40% of child casualties dying.⁽¹¹⁾ On average, **nine children per month have been verified as killed or injured by EO between 2011 and 2019** – the majority in Idlib and Aleppo governorates.⁽¹²⁾

Nearly three quarters of recorded accidents happened in residential (39%) or agricultural areas (34%), with 10% on the road or roadside.

Travelling or moving from one place to another, agricultural and household work, and playing with EO were the main activities at the time of accidents.⁽¹³⁾

“During the displacement because of the battles in the city of Raqqa, the girl was with her family and other people walking. They passed a motorbike when the motorcycle drove over a mine, causing it to explode. It killed the girl and injured three others.”

Community Liaison Officer, International Humanitarian Mine Action actor in Syria.

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

7. UN OCHA, 'Humanitarian Needs Overview Syrian Arab Republic', February 2022, https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/hno_2022_final_version_210222.pdf.

8. This data is based on a casualty report requiring a face-to-face interview, so research coverage is limited to areas where HMA reporting actors have direct access to the casualties and their relatives.

9. 'Survivor' refers to a woman, girl, boy or man who has suffered injury as a result of an accident caused by EO and survived.

10. UNMAS Victim Data Analysis May 2020.

11. Mine Action Syria Response & Child Protection Whole of Syria, 'Impact of explosive ordnance on children in Syria', December 2020', https://reliefweb.int/sites/reliefweb.int/files/resources/impact_of_explosive_ornance_on_children_in_syria_compressed.pdf.

12. Ibid.

13. UNMAS Victim Data Analysis May 2020.

“Sometimes surgeries were unfortunately unavailable... Sometimes there is a delay in providing aid to patients, which unfortunately results in permanent impairment or death.”

Surgeon operating in Syria.

Reverberating effect on affected persons and communities

2021 community surveys found that EO survivors **mainly need economic support; medical care; assistive devices and prosthetic and orthotics; physical rehabilitation; and mental health and psychosocial support.**⁽¹⁴⁾ However, there are major barriers to access these services. Survey respondents mainly cited cost, unavailability of services in the local area or within travelling distance, and a lack of jobs for persons with disabilities.⁽¹⁵⁾ EO survivors also suffer a number of social consequences. This includes withdrawal from family and community life, and reduced options in terms of marriage, children, and economic self-sufficiency. People who sustained an amputation are also especially vulnerable to discrimination, facing social stigmatization, and unemployment.

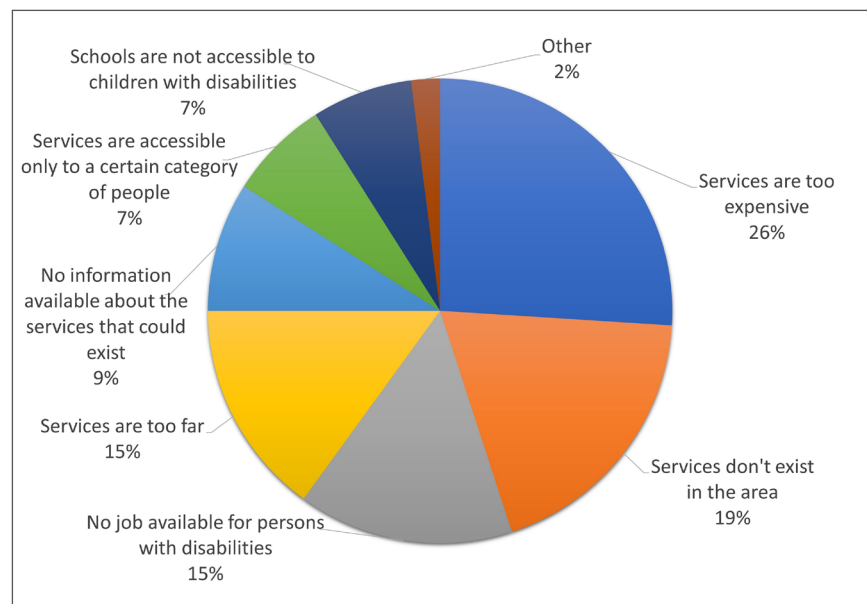


Figure 2 – Pie chart showing the breakdown of barriers preventing people injured by EO accessing required services.
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14. Mine action Area of Responsibility findings 2022 Humanitarian Needs Overview (HNO), November 2021.

15. Ibid. Note - 'jobs' are not generally included under services, but were included as a possible response in the community survey question: 'In case the above services are not accessible to civilians who have been injured and have a resulting disability, do you know what are the main barriers for accessing them (choose all that apply)?'.

EO has caused the **destruction of vital infrastructure**, which will have a reverberating⁽¹⁶⁾ effect for years, if not decades. Only approximately half of hospitals and healthcare centres in Syria are fully functional;⁽¹⁷⁾ thousands of schools have been damaged or destroyed;⁽¹⁸⁾ millions of homes have been destroyed, damaged or are too dangerous to live in;⁽¹⁹⁾ and agricultural land is unusable due to EO contamination or damaged irrigation systems.⁽²⁰⁾



Figure 3 – The entrance to Raqqa National Hospital's emergency room and walkway to the currently non-functional part of the hospital. They are impacted by blast damage and small arms fire. Windows are blown out and there is significant structural damage. Courtesy of an International Humanitarian Mine Action actor operating in Syria.

Impact on delivery of humanitarian assistance

Hostilities and resulting EO contamination also **prevent safe and effective delivery of humanitarian assistance**. The danger of EO contamination in both urban and rural areas limits the ability of humanitarian actors to conduct needs assessments or implement much needed activities supporting the early recovery of communities, such as

16. "Reverberating effects extend beyond the weapon's impact area and last days, months, or even years after the initial attack. These effects, which are often large scale and systems level, are exemplified by the disruption of essential services as a result of damage to critical infrastructure and displacement of the local population.": Human Rights Watch, 'Analysis of the Draft Elements of a Political Declaration on the Use of Explosive Weapons in Populated Areas', February 2021, <https://www.hrw.org/news/2021/02/22/analysis-draft-elements-political-declaration-use-explosive-weapons-populated-areas>.

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

18. Action on Armed Violence, 'The impact of explosive weapons on children in Syria', October 2020, <https://aoav.org.uk/2020/the-impact-of-explosive-weapons-on-children-in-syria/>; Islamic Relief Worldwide, 'Afraid to go to class', March 2021, <https://www.islamic-relief.org/afraid-to-go-to-class-ten-years-since-the-start-of-the-syria-crisis-children-and-teachers-describe-the-lasting-horror-of-attacks-on-schools/>.

19. Humanity & Inclusion, 'Demining and rebuilding will take generations', March 2021, https://hi-canada.org/sn_uploads/pdf/022021_PR_10_years_Syria_EN.pdf.

20. Action on Armed Violence, 'The reverberating effects of explosive violence on agriculture in Syria', July 2020, <https://aoav.org.uk/2020/the-reverberating-effects-of-explosive-violence-on-agriculture-in-syria/>.

the rehabilitation of homes, schools, health centres, water and irrigation networks; and creation of livelihood opportunities.



Figure 4 – Explosive ordnance in a school in an area in Syria emerging from active conflict. Courtesy of an International Humanitarian Mine Action actor operating in Syria.

According to a 2022 survey of 14 international humanitarian NGOs operating in Syria, **six have had to move, postpone or cancel programmes in the past two years because the programme location was contaminated with EO**. A further three automatically excluded project locations from need assessments due to a known presence of EO. In addition to inhibiting the required type and scale of assistance, EO also poses a threat to the safety of humanitarian staff, contractors and service users.

EO contamination, injury and death in Syria can only be prevented through a **permanent cessation of hostilities and a comprehensive humanitarian mine action plan**. In the meantime, the existing landscape necessitates scaling up of land release⁽²¹⁾ through survey⁽²²⁾ and clearance⁽²³⁾ of EO, explosive ordnance risk education (EORE) to mitigate the dangers, and victim assistance (VA) to ensure EO survivors receive the support they need to access health (including rehabilitation, prosthetic and orthotic services, mental health and psychosocial support); education; social inclusion; and livelihood opportunities.

21. 'Land Release' describes the process of applying all reasonable effort to identify, define, and remove all presence and suspicion of EO through non-technical survey, technical survey and/or clearance.

22. 'Survey' encompasses non-technical and technical surveys. Non-technical surveys are generally conducted without the use of mine action assets (tools) or other technical interventions, while technical surveys do use mine action assets or other technical interventions.

23. 'Clearance' in the context of mine action, refers to tasks or actions to ensure the removal and/or the destruction of all EO hazards from a specified area to a specified depth or other agreed parameters as stipulated by the NMAA/Tasking Authority.

“Locating, identifying and clearing EO from urban and rural areas in Syria can be technically challenging. This can be compounded by environmental factors such as extreme heat, dust, toxic industrial chemicals and damaged or destroyed buildings. Even though we take every precaution, accidents can and do happen out here. The work is dangerous but also incredibly fulfilling and rewarding, especially when we remove these deadly explosive threats from homes and fields and see people returning, bringing the towns, cities and streets back to life. Knowing that families will be safer, and can begin to rebuild their lives is worth the risks we take.”

Deminer operating in Syria.



Figure 5 – A deminer in the process of removing EO from agricultural land in Syria. Courtesy of an International Humanitarian Mine Action actor operating in Syria.

“An EORE team ran an awareness session about the risks of the EO in a house of a family of five people. The head of the household used to collect the scrap metal and sell them for an income, while his wife kept some of the objects with nice shapes and colours to use as vases. During the session, the family was shocked when looking at photos of EO and videos of their impact. This shows that without EORE people can easily mistake deadly objects for just an ordinary piece of metal.”

EORE team in Syria.

Recommendations

- **Observation:** Due to insecurity caused by hostilities and criminal activity, as well as bureaucratic restrictions, HMA actors can struggle to start operations and ensure a continuous presence in affected communities. Effective HMA can only take place when HMA actors can reach those most in need.

Recommendation: Parties to the conflict, donors and the United Nations humanitarian leadership must support full and unfettered access for all HMA actors, regardless of the communities they serve, modalities and areas of operation.

- **Observation:** The Mine Action appeal in the 2022 Humanitarian Response Plan indicates that USD 83.4 million will be needed to respond to mine action needs in Syria. As of March 2022, the Mine Action sector had only secured 7% of funding required.⁽²⁴⁾ Further, several donors supporting HMA in Syria have recently either withdrawn or reduced support, leaving HMA actors with significant funding shortfalls.

Recommendation: Donors should prioritise funding for technical and non-technical surveys and clearance to facilitate maintaining and scaling-up of operations. Clearance is the only way forward to permanently reduce the threat from EO. Donors should provide dedicated funding for VA to cover long-term needs. Meanwhile, EORE must continue to receive the necessary funding to continuously work towards preventing accidents, in particular where EO clearance is unavailable. Donors should also insist that implementing partners conducting surveys and clearance and/or EORE comply with the recently endorsed International Mine Action Standard (IMAS) 13.10 on Victim Assistance in Mine Action.

- **Observation:** HMA – in particular clearance – cannot be a standalone activity and programming should happen in partnership with other humanitarian and early recovery actors. HMA actors have cleared rural areas and villages, but access to health, education, water, electricity, and livelihood opportunities also determines whether the community can recover and whether displaced people can return. Similarly, humanitarian actors are unable to deliver humanitarian assistance – including crucially important early recovery programming – due to the presence of EO.

Recommendation: Donors and humanitarian actors must recognise that humanitarian mine action is a key enabler to many aspects of the humanitarian response and a prerequisite to an immediate and

24. Out of the USD 77 million requested to implement mine action activities in line with the 2021 Humanitarian Response Plan, only approximately 30% has been funded.

long-term recovery in Syria. They must ensure that HMA activities are more strongly integrated into other sectors through comprehensive programming. Further, donors and HMA actors should prioritise mainstreaming conflict sensitivity into activities to ensure that interventions have no negative effects on local conflict dynamics, but that where possible this impact is transformative.

- **Observation:** The destruction in Syria is another appalling illustration of the disproportionate and indiscriminate consequences on civilians and civilian infrastructure caused by the use of explosive weapons in populated areas.

Recommendation: States must develop, finalise and adopt a strong political declaration to avoid the use of explosive weapons with wide-area effect in populated areas, which includes clear language and firm commitments on land release, risk education and victim assistance.⁽²⁵⁾

- **Observation:** There are major gaps in data on the extent and type of EO contamination in Syria, EO casualties and impact of EO, and mine action activities implemented. Not all parties to the conflict allow the necessary data collection.

Recommendation: Donors should support and fund the establishment of a centralized database which includes information on casualties disaggregated by gender, age, disability a person may have had prior to the EO accident, and displacement status. This information should be recorded and safeguarded in a digital format in accordance with IMAS standards. Parties to the conflict must ensure HMA actors can independently conduct all necessary data collection.

- **Observation:** In the last two years, ongoing hostilities and COVID-19 related travel restrictions have significantly disrupted HMA activities and coordination.

Recommendation: HMA actors have worked hard to overcome these challenges. Alongside donors and other humanitarian actors, they should continue to strengthen individual hub and Syria-wide coordination mechanisms.

25. For more information on the political declaration please see the following website: <https://www.dfa.ie/our-role-policies/international-priorities/peace-and-security/ewipa-consultations/>



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