

No safe recovery:

The impact of Explosive Ordnance contamination on affected populations in Iraq

When explosive weapons, including air and artillery strikes, rocket and heavy mortars, are used in populated areas, they kill, injure, traumatise, and displace the population, destroy civilian infrastructure, and impede access to humanitarian aid, both during the conflict and for years or decades to come. As their design and use are inherently inaccurate, many explosive weapons fail to explode upon impact, contaminating the land with Explosive Ordnance (EO). Prohibited weapons, such as landmines, including those of an improvised nature, also contribute to contaminating large swathes of land. The term “Explosive Ordnance” herein, therefore encompasses Mines, Cluster Munitions, Unexploded Ordnance, Abandoned Ordnance, Booby traps, other devices (as defined by CCW APII) and Improvised Explosive Devices.⁽¹⁾

Weapons that fail to explode when launched or dropped, as well as other unexploded ordnances designed to be activated by victims, remain an ongoing threat to civilians in the long term. With the potential to cause death, injury or permanent impairment, **EO contamination negatively impacts access to services that civilians depend on, such as health, education, water and sanitation, transportation, and telecommunication. It also restricts the movement and return of the displaced population.** If left unaddressed, the threat of

contamination can persist for generations, hindering peace and development efforts.

Based on desk review and qualitative interviews with land release operators, local and international humanitarian actors, government representatives, community leaders, survivors and members of their families and communities, this report identifies and describes the negative impact of EO contamination on affected communities in the Ninewa governorate, Iraq. **Explosive Ordnance continues to pose a threat to people’s lives, their safety, and their access to land and other resources and services in contaminated areas in Ninewa. It also hampers the efforts of humanitarian and development actors.** Moreover, certain groups, such as women and persons with disabilities are likely to be more vulnerable to the reverberating effects⁽²⁾ of EO contamination.

As urban warfare has become a common pattern of violence in modern conflicts, the example of the Ninewa governorate highlights the **vital importance of ensuring that the future political declaration on explosive weapons includes clear language on the long-term impact of EO contamination and on commitments regarding inclusive and conflict-sensitive land release, EOORE, victim assistance, principled humanitarian access, as well as gender, age and disability disaggregated data, to minimize the impact.**

1. Definition from IMAS 13.10 First Edition (February 2020).

2. “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.” From: https://www.hrw.org/sites/default/files/media_2021/02/EWIPA_Feb21_FINAL2.pdf

The use of Explosive Weapons in Populated Areas generates widespread contamination

Despite a lack of accurate data on EO contamination in the country, Iraq is estimated to be one of the most heavily Explosive Ordnance (EO) contaminated countries in the world. A total of **3,225 km² of land is reported to be contaminated, putting 8.5 million people at risk**. Areas within Iraq that were retaken from the Islamic State (IS), including the Ninewa governorate, have particularly high levels of contamination.

In Iraq, EO contamination can be divided into 'legacy' contamination, referring to contamination that occurred before 2014, and 'new' contamination, referring to contamination stemming from the 2014-2017 conflict between the Islamic State (IS) and pro-government forces. **The latter is mainly found in urban and semi-rural areas:** IS manufactured and deployed Improvised Explosive Devices (IED) on

an unprecedented quasi-industrial scale, while pro-government forces used large quantities of explosive weapons, especially those with wide-area effects, including air and artillery strikes, rocket attacks and heavy mortars. The resulting EO has been used and could potentially be re-used in the future by armed groups, including IS, to manufacture more IEDs, perpetuating the threat of contamination.

Contamination in populated areas is complex in nature and often referred to as “three-dimensional”, meaning that it can be found anywhere: buried in the ground, attached to refrigerators, doors, windows, concealed inside rubble, children's toys, domestic appliances, etc. This, together with the high levels of destruction, poses serious obstacles to safe access, including for armed violence reduction activities in populated areas.

Land release in populated areas is a challenging but necessary task to promote peace and sustainable development

EO land release is among the most time-, effort- and economic resource-consuming pillars of Humanitarian Mine Action (HMA) in Iraq and globally. This holds even more true when land release is conducted in populated areas, where the challenges faced by operators are much greater. The complexity of the environment in populated areas often requires specific equipment, machinery and expertise, which cannot always be easily procured. Moreover, procedures regarding housing, land and property pose additional obstacles to land release implementation, as the process of identifying property owners is not only complex and time-consuming but also fraught with potential conflict triggers.

However, as well as preventing future EO casualties, **land release, along with EORE, victim assistance and conflict transformation activities,**

plays a key role within the so-called ‘triple nexus’ that links the humanitarian, peace, and development sectors. As such, effective land release is paramount to delivering the United Nations 2030 Agenda.

In Iraq, most mine action operators perceive land release as the core focus of their activities, without necessarily registering the potential of monitoring and evaluating activities to help understand, demonstrate and spread the developmental benefits stemming from mine action by implementing a more comprehensive model that integrates not only land release, EORE and VA, but also conflict transformation. These interventions should be **designed and evaluated to include age, gender and disability-inclusive indicators that measure outcomes, instead of the traditionally used output-based indicators**



A civilian is passing by a munition case left on the ground in a street of Mosul. © F.Vergnes / HI

(i.e. number of devices cleared, and number of square metres cleared), to effectively measure the impact on affected people's lives, such as the

level of income generated, number of meals per day, safe access to water, or whether girls now also attend school, to name just a few.

“The level of contamination is high in the areas contaminated with explosive ordnance. The contamination is dangerous and deadly and needs to be fully cleared out, in order for people to live peacefully in the area. We cannot access services due to the presence of explosive ordnance.”

Community Member, woman – Mosul

Explosive Ordnance Risk Education is effective when adapted to risk-taking behaviours in the affected population

The effectiveness of Explosive Ordnance Risk Education (EORE) in Ninewa was found to vary depending on the target group. Generally, **EORE was reported to be effective for those who lack knowledge regarding the existing hazards, including children and recent returnees.**

However, EORE does not appear to provide a solution for those who display **forced risk-taking behaviours driven by a lack of alternative livelihoods or housing, or those who have been living in a contaminated area for a longer period.**

“Yes, I knew that IS had placed mines everywhere, but I am a shepherd and had to take care of my cattle.”

EO Survivor, man - Sinjar

Furthermore, the materials used in EORE activities are sometimes ill-adapted to the local situation in terms of language and contexts (e.g. type of

contamination addressed) and tend not to be accessible to persons with different types of impairments.

Victim Assistance-related efforts allow individuals and communities affected by EO to enjoy their rights and meet their needs

Victim assistance requires an **integrated approach** involving actions by both the mine action sector, as well as other sectors such as health, social welfare, labour and education, to meet the needs of survivors and their families, the families of those injured and/or killed, and the affected communities and to uphold their rights.

However, **data show that victims lack access to basic services.**⁽³⁾ Ninewa is the most severely affected governorate in terms of damage to the healthcare sector due to the conflict. **Many of the healthcare facilities destroyed have not yet been rebuilt. Where medical facilities have been rehabilitated, contamination prevents people from accessing health services.** Furthermore, the multiple risks of exclusion created by the intersection of disability, gender and age factors

mean that, **access to health services is likely to be more limited for certain groups, including women and persons with disabilities.** Other factors limiting access to healthcare were also identified, including the poor quality of the services and the inability to pay medical costs.

In Ninewa, access to education has been severely affected as many schools were destroyed during the conflict and some schools, as well as roads to schools, remain contaminated by EO. This can be a driving factor in school drop-out rates, because parents do not want their children to travel long distances to the nearest operational school, or because they fear that their children may encounter or play with EO on the way to school. For children, this fear leads to reduced willingness and motivation to attend school.

“Since the place became contaminated, we do not allow our children to go to school on their own. This is because we are scared that they may play with explosive ordnance. Moreover, we are also scared that there might be explosive ordnance inside the school.”

Community Member, man – Mosul

Livelihood opportunities for all members of the community are severely impacted by contamination. Farmers and shepherds, in

particular, are often unable to access land due to the presence of EO. This sometimes results in risk-taking behaviours, as people

3. When using the term “access to services” throughout these document, the following six criteria underpin the concept of “access”: availability, accessibility, acceptability, affordability, accountability & good technical quality. From HI, 2013, factsheet 9 “How to Implement VA obligations?”, available at https://blog.hi.org/wp-content/uploads/2020/01/VA_Factsheets_All_EN.pdf



A house in Sinjar city totally destroyed during the fighting in 2017. In some buildings, unexploded rockets and booby-traps remain.
© F.Vergnes / HI

enter contaminated land pressured by the need to earn an income. While research has shown that women’s access to employment in conflict-affected areas is very limited, men are reportedly

more affected by the lack of access to livelihood opportunities as they are generally the main provider for their families.

“The way community members perceive me has changed since the incident. They now perceive me as a person who cannot support his family.”

EO survivor, man - Sinjar

The survivors of EO accidents are amongst those most affected by EO contamination, and they often require specialist services in order to thrive. **Despite the widespread need for services, those available are generally limited in scope and quality. Moreover, they are mostly provided by humanitarian actors and not effectively**

integrated into broader health, social, education, labour and disability efforts. The unwillingness of donors to prioritize VA-related efforts and the consequent **lack of funding** are two of the main reasons for the reduced availability and poor, fragmented service provision for victims.

“Prior to the incident, I used to visit my friends, but now I can’t because I can’t walk or see very well, which makes it difficult for me to visit them. So, I spend most of my time at home.”

Child Victim of EO, girl – Sinjar

To address the current gaps in victim assistance and target EORE and land release in an inclusive manner, it is important to have accurate and complete information on the availability of quality services, as well as on the number and situation of EO casualties, including data disaggregated

by gender, age and disability. Although the Government of Iraq has committed to conventions that oblige the government to collect data on casualties, and despite that different data collection mechanisms exist, available data is severely lacking.

A comprehensive Armed Violence Reduction model is key to enhancing social cohesion in EO-affected communities

EO contamination negatively impacts social cohesion⁽⁴⁾ and limits the opportunities to positively transform conflict dynamics. Firstly, **contamination was reported to be an important factor preventing displaced populations from returning home.** One in twelve internally displaced persons reports that the presence of EO is a barrier to their return.⁽⁵⁾ Barred from safe return, households continue to be displaced and communities are unable to reconnect and build their resilience collectively.

Contamination was also reported to increase tension within families in a variety of ways. The most obvious impact is that accidents may leave survivors permanently impaired, thereby changing the roles and responsibilities of family members and potentially creating tensions between them. Indirect impacts of contamination on social cohesion, such as limited access to livelihoods and services, can also cause tensions within families. Women are particularly vulnerable in these situations, as tensions may translate into gender-based violence.

“Fear has become a dominant feeling among many of the community members who live in or close to contaminated areas. They always feel insecure; no one feels safe. This obviously affects the population’s psychological well-being.”

Mine Action Operator

At community level, EO accidents can result in a particular group being blamed for the contamination. In the most extreme cases, this can lead to acts of retaliation. Moreover, contamination also increases fear among community members as it reduces their willingness to travel, the availability of public spaces, and increases competition for resources, as the contamination reduces the availability of services and livelihood opportunities.

To ensure a broader and more sustainable impact, efforts should not only address the immediate effects of armed violence, but also its long-term impacts and root causes. This is even more crucial when conflict dynamics enter a vicious circle where armed violence is both a consequence and a trigger of the recurrence of conflicts. It is imperative that the mine action sector ensures its interventions are conflict sensitive and, where possible, contribute to conflict transformation in order to break these cycles of violence.

4. According to the OECD, Social Cohesion “works towards the well-being of all its members, fights exclusion and marginalisation, creates a sense of belonging, promotes trust, and offers its members the opportunity of upward social mobility. As such social cohesion is both a desirable end and a means to inclusive development.” Available at OECD website <https://www.oecd.org/dev/inclusivesocietiesanddevelopment/social-cohesion.htm>

5. REACH (October 2020) Multi-Cluster Needs Assessment VIII.



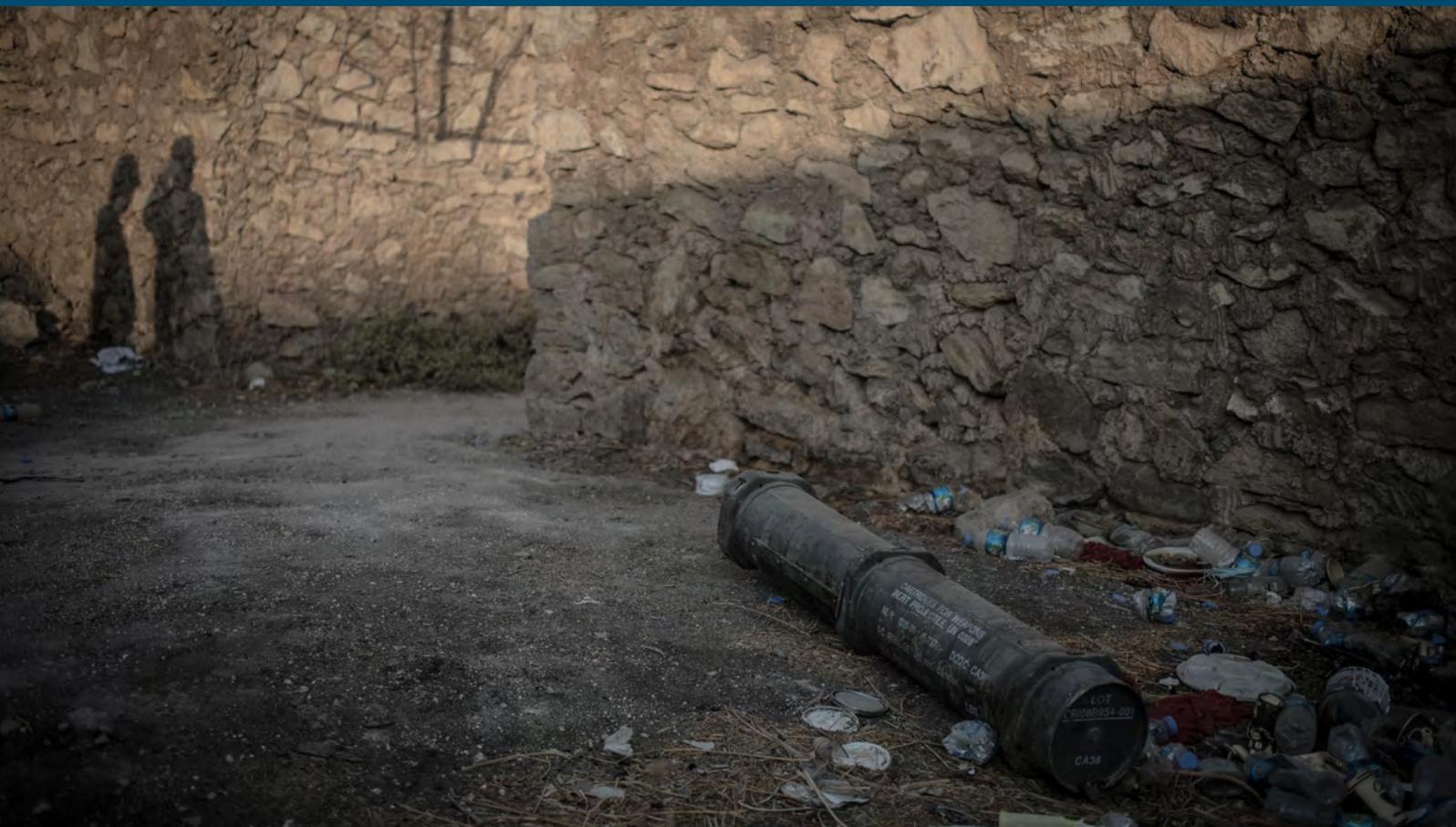
In Sinjar, Mosque destroyed and booby-trapped by ISIS. © F.Vergnes / HI

General recommendations to the international community, including the Government of Iraq and other States, donors and Mine Action operators:

- **Recommendation 1:** Support the development of a strong political declaration to avoid the use of explosive weapons with wide-area effect in populated areas, which includes firm commitments on land release, risk education and victim assistance.
- **Recommendation 2:** In line with the Oslo and Lausanne Action Plan, do not use landmines and cluster munitions, clear contaminated areas, deliver EORE, and provide assistance to individuals and affected communities.
- **Recommendation 3:** Recognize that humanitarian mine action is a prerequisite to any immediate or long-term recovery, and continue to stress the humanitarian nature of mine action activities.
- **Recommendation 4:** Commit humanitarian funding to significantly scale up humanitarian mine action activities, in line with International Mine Action Standards and humanitarian principles.
- **Recommendation 5:** Encourage the use of a comprehensive approach to Armed Violence Reduction, including land release, stockpile destruction, EORE, victim assistance, advocacy and conflict transformation which mainstreams a gender, age, and disability perspective in an intersectional manner

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