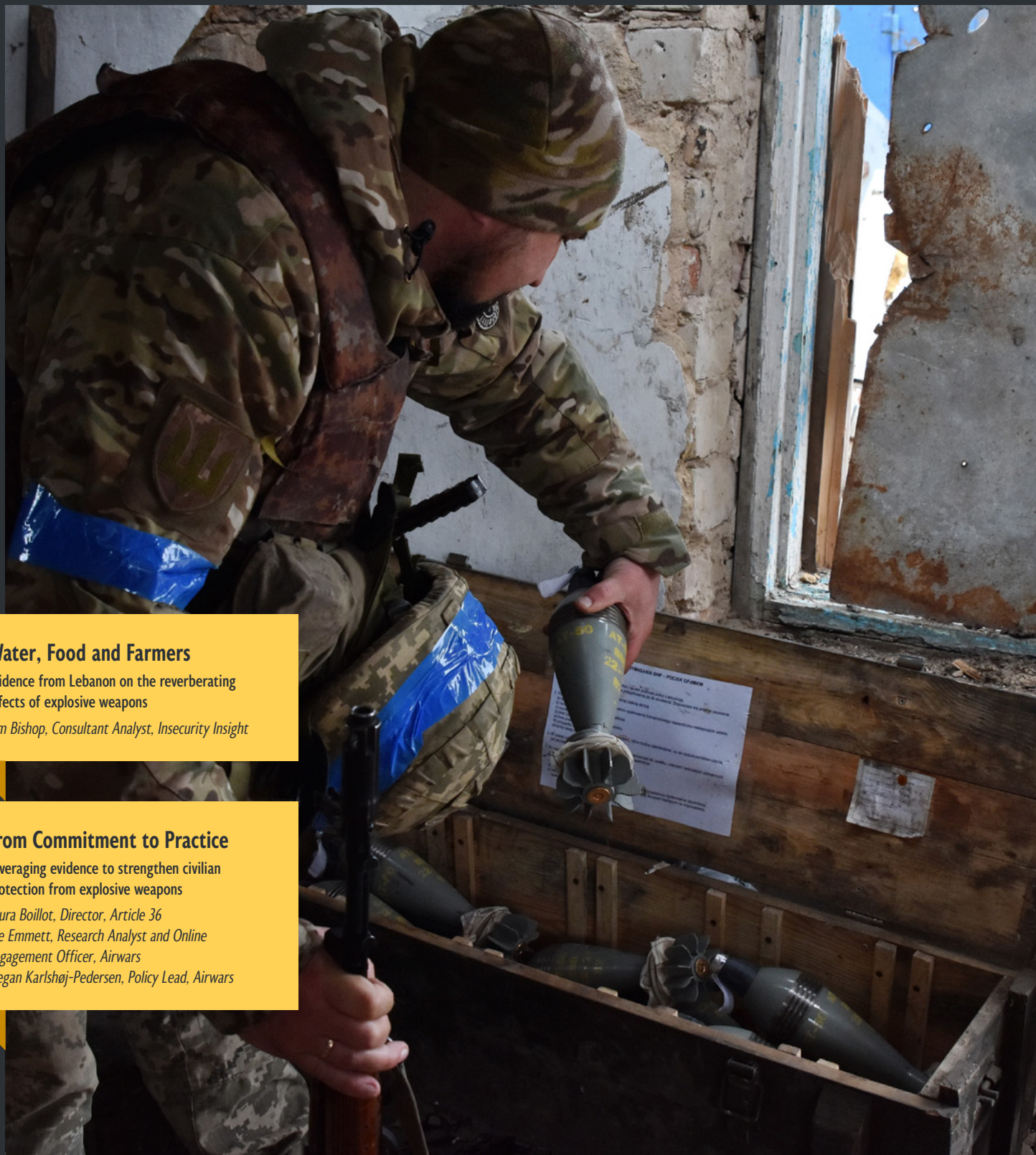
EXPLOSIVE WEAPONS MONITOR

FRAGMENTS

EXPLOSIVE WEAPONS MONITOR QUARTERLY

VOL. 3, ISSUE 2, SEPTEMBER 2025



Water, Food and Farmers

Evidence from Lebanon on the reverberating effects of explosive weapons

Tim Bishop, Consultant Analyst, Insecurity Insight

From Commitment to Practice

Leveraging evidence to strengthen civilian protection from explosive weapons

Laura Boillot, Director, Article 36
Joe Emmett, Research Analyst and Online Engagement Officer, Airwars
Megan Karlshøj-Pedersen, Policy Lead, Airwars

A NOTE FROM THE **EXPLOSIVE WEAPONS MONITOR**

As the intensity of conflicts around the world continues to ebb and flow, harm to civilians from the use of explosive weapons in these conflicts remains widespread and severe. As civilians are killed and injured and civilian infrastructure damaged and destroyed in Ukraine, Myanmar, Sudan and elsewhere, civilians also experience the long-term and reverberating impacts of the disruption of essential services in Gaza, the Democratic Republic of Congo and Lebanon, to name a few contexts.

This issue of *Fragments* shows the reverberating effects of explosive weapons on water infrastructure, food security and farmers in Lebanon between October 2023 and April 2025. Water supply and food production systems are indispensable to civilian well-being and survival. Yet in Lebanon, the high intensity use of explosive weapons by Israeli armed forces during the escalation of hostilities in 2024 seriously undermined the functioning of Lebanon's water supply and food production systems.

The damage and destruction of water pumping stations were particularly impactful given that the flow of water through distribution networks across large geographic areas depends on their functioning. For example, when the main water pumping station in Tyre was severely damaged by an airstrike by Israeli armed forces in November 2024, water access to 72,000 people was disrupted, according to Insecurity Insight. The disruption of water supplies also heightened challenges for farmers requiring water for irrigating crops. More than 82 percent of farmers when interviewed stated that, since October 2023, they had experienced difficulties accessing sufficient water to irrigate crops or provide drinking water for livestock. Although some referred to low rainfall as a contributing factor, these farmers stressed that disruptions to running water supplies had worsened the difficulties.

Since the *Political Declaration on Strengthening the Protection of Civilians from the Humanitarian Consequences Arising from the Use of Explosive Weapons in Populated Areas* was opened for adoption in 2022, 90 states have endorsed it. In doing so, they committed to strengthening the protection of civilians by restricting the use of explosive weapons in populated areas and by addressing the humanitarian consequences when such weapons are used. However, endorsement alone is not sufficient to strengthening the protection of civilians from explosive weapons.

As such, this issue of *Fragments* emphasises the importance of and need for evidence-driven implementation, including restraint and avoidance, weapon-specific restrictions, systematic civilian harm tracking, and learning processes that translate data into concrete operational and policy change. According to Article 36 and Airwars, ultimately the Declaration will be judged by whether it leads to decisions that prevent civilian harm, not by assurances that current approaches are adequate. Achieving this requires sustained, technical, and practical engagement – ideally through open dialogue among states, armed forces, international organisations, and civil society – focused on how harm occurs and how it can be prevented in practice.

The continued and widespread civilian harm resulting from the use of explosive weapons in populated areas confirms the ongoing relevance of the Political Declaration. While endorsement is an important starting point, the most meaningful change comes from the effective operationalisation of its commitments at the national level. Ultimately, the credibility and impact of the Declaration depends on remaining closely connected to, and grounded in, the realities of harm experienced by civilians.

Katherine Young
Research & Monitoring Manager, Explosive Weapons Monitor

FRAGMENTS: EXPLOSIVE WEAPONS MONITOR QUARTERLY SERIES

Fragments is a collection of articles that address topics related to the use of explosive weapons in populated areas and contribute research to or report on developments and news relevant to this issue area. *Fragments* aims to reach a combination of specialised audiences familiar with the issue of explosive weapons in populated areas, including those affected by explosive weapons use, as well as the community of practice working to address the impacts of explosive weapons through the Political Declaration on the Use of Explosive Weapons in Populated Areas.

The Explosive Weapons Monitor is a research initiative of the International Network on Explosive Weapons (INEW). It conducts research and analysis on harms from and practices of explosive weapons use in populated areas and monitors universalisation and implementation of the Political Declaration on the Use of Explosive Weapons in Populated Areas.

WWW.EXPLOSIVEWEAPONSMONITOR.ORG
INFO@EXPLOSIVEWEAPONSMONITOR.ORG
@WEAPONSMONITOR

On the cover:

A Ukrainian army soldier inspects mortar bombs in Robotyne. Zaporizhzhia, Ukraine in March 2024.

This issue was produced and edited by Katherine Young of the Explosive Weapons Monitor. Reviews of articles were conducted by the Explosive Weapons Monitor Editorial Board. Art direction and graphic design was provided by Dave Watson of Collected Pros. Images were provided by Getty Images and partners.

March 2025

Funded by the European Union

This document was produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

CONTENTS

WATER, FOOD AND FARMERS

EVIDENCE FROM LEBANON ON THE REVERBERATING EFFECTS OF EXPLOSIVE WEAPONS

TIM BISHOP, CONSULTANT ANALYST,
INSECURITY INSIGHT

This examines the impact of the use of explosive weapons in conflict escalation in Lebanon on water infrastructure, farmers and food security between October 2023 and April 2025. Based on Insecurity Insight research and key informant interviews conducted in Nabatieh, South, Bekaa and Baalbek-Hermel governorates, it highlights the long-term indirect and reverberating effects from the use of explosive weapons on civilian populations.

Introduction

Water supply and food production systems are indispensable to civilian well-being and survival. Lebanon is often referred to as the "water tower of the Middle East," owing to its significant water resources. In large rural areas of the country, agriculture is a significant economic activity as well, as the agri-food sector contributed up to 80 percent of the gross domestic product of the Bekaa, Nabatieh and South regions pre-conflict.[1] However, since October 2023, the high intensity use of explosive weapons by Israeli armed forces during the escalation of hostilities with Hezbollah has seriously undermined the functioning of Lebanon's water supply and food production systems.

Insecurity Insight undertook research to better understand the impact of the use of explosive weapons in conflict escalation on water infrastructure, farmers and food security in Lebanon between October 2023 and April 2025. This article highlights the findings from this research and supports existing evidence regarding the foreseeable long-term reverberating effects on civilians from the use of explosive weapons. The findings are based on key informant interviews with 78 individuals including water specialists, farmers and affected communities in Nabatieh, South, Bekaa and Baalbek-Hermel governorates in late March and April 2025, as well as open-source desk research.

Damage and destruction of water infrastructure

Between October and November 2024, water infrastructure in Lebanon was repeatedly damaged and destroyed by attacks by Israeli armed forces which primarily involved the use of air-launched explosive weapons. The attacks were most frequent in southern Lebanese communities along the Israel-Lebanon border in Nabatieh and South governorates, where incidents were recurrent. In these governorates alone, at least 26 water pumping facilities associated with public networks and 28 water pipeline networks had reportedly been at least moderately damaged between October 2023 and July 2025. Experts estimated that, by November 2024, up to 90 percent of water, sanitation and hygiene (WASH) infrastructure in southern Lebanese communities within five kilometres of the Israeli border had been damaged or destroyed.[2]

Smoke rises from the site of an airstrike by Israeli forces that targeted the southern Lebanese village of El Mahmoudiyeh on 27 November 2025.

The exact extent to which the water infrastructure was deliberately and specifically targeted rather than being struck by the large blast radius of the explosive weapons is unclear. However, the extensive nature of the damage and destruction suggests that few precautions were taken to protect this infrastructure. Furthermore, satellite imagery reviewed by Insecurity Insight shows that some of the infrastructure was surrounded by large open areas of agricultural land without other clearly identifiable buildings within their vicinity.

Reverberating impacts spread across time and space

The damage and destruction of water infrastructure also had significant reverberating impacts on civilians in Lebanon.

First, the publicly operated water supply system has been severely disrupted. The damage and destruction of water pumping stations were particularly impactful given that the flow of water through distribution networks across large geographic areas depends on their functioning. For example, when the main water pumping station in Tyre was severely damaged by an airstrike by Israeli armed forces in November 2024, water access to 72,000 people was disrupted.[3] Frequently, running water remained unavailable for months after water infrastructure was initially damaged or destroyed. Limited financial resources and continued concerns about security were highlighted by interviewees as the main barriers to repairing damaged infrastructure.

Second, in locations where running water supplies were interrupted, communities became heavily dependent on private water sources or purchasing trucked-in water. According to the World Bank, trucked-in water costs households ten times more than water obtained from public water supply authorities.[4] Vulnerable civilians in Lebanon already faced challenges accessing sufficient clean water at an affordable price amidst inflation and Lebanon's socio-economic crisis since 2019. However, this situation was seriously exacerbated among affected communities, especially given that 166,000 individuals in Lebanon were estimated to have lost their jobs due to the conflict escalation as of late October 2024.[5]

Third, the disruption of water supplies heightened challenges for farmers requiring water for irrigating crops. More than 82 percent of farmers who were interviewed stated that, since October 2023, they had experienced difficulties accessing sufficient water to irrigate crops or provide drinking water for livestock. Although some referred to low rainfall as a contributing factor, these farmers stressed that disruptions to running water supplies had worsened the difficulties.

Fourth, the damage and destruction add significant financial burdens to the Lebanese state, already under pressure since the 2019 socio-economic crisis. This is not only due to the need for repairing damaged and destroyed infrastructure but also due to the loss of revenue by water authorities following the interruption of water services and the creation of "non-revenue water." This denotes water that is lost or unaccounted for before it reaches the end consumer, and that consumers can therefore not be charged for.[6] Overall, the conflict in Lebanon is estimated to have created losses of US$171 million across the water, wastewater and irrigation sectors.[7]

Figure 1 – Tyre water pumping station following its destruction in an airstrike by Israeli armed forces in November 2024

If appropriate action is not taken, further reverberating effects are also foreseeable. These include the risk of affected populations resorting to unsafe or contaminated water sources, the potential emergence of waterborne diseases and long-term forced displacement due to a lack of access to essential amenities such as water. As of July 2025, it was reported that only 28,000 people were living in southern Lebanese communities within five kilometres of the Israeli border compared with 92,000 before October 2023.[8]

Farmers and food production

As already highlighted, farmers and food production depend on adequate water supplies. However, the wide variety of reverberating effects from the use of explosive weapons on farmers and food distribution in Lebanon extended beyond those restricting water access.

Heavily agricultural areas of Lebanon have been disproportionately affected by explosive weapons. As of mid-January 2026, more than 10,000 air or drone strikes and over 6,000 instances of shelling, artillery, or missile fire have been reported in Lebanon since October 2023, over 98 percent of which were conducted by Israel. Around 85 percent of the air and drone strikes and 99 percent of the shelling, artillery and missile fire occurred in the southern governorates of Nabatieh and South.[9] Pre-conflict escalation, Nabatieh was important for olive and fruit production and the South governorate hosted 94 percent of the country's banana plantations and over 60 percent of citrus and avocado trees.[10] The use of explosive weapons in these areas has had devastating impacts on farming communities.

Around 93 percent of interviewed farmers stated they had felt unsafe accessing land for planting or harvesting crops or grazing livestock since October 2023. For many farmers, feelings of being unsafe derived from perceptions of indiscriminate and unpredictable bombing. For example, one farmer stated that they left the area where they farmed because it was "too dangerous [...] due to random and chaotic airstrikes." Other farmers described airstrikes as "sudden" and said that they "never knew when and where the hit will be." Farmers also reported difficulties in finding agricultural labourers due to a collective loss of feelings of security.

The concerns about the unpredictable use of explosive weapons directly contributed to reduced food production by farmers. Around 90 percent of the interviewed farmers said that the overall amount of food they produced had reduced since October 2023. Several farmers in Khiam, Bodai and Saydeh, Baalbek and Aitaroun stated that their food production had reduced by 100 percent, depriving them of their income source. Additionally, farmers raised concerns about the presence of explosive remnants of war contaminating their agricultural land and rendering the land unsuitable for cultivation in the future.

Combined, the intense use of explosive weapons in heavily agricultural areas of Lebanon has contributed to creating a negative cycle of long-term reverberating effects which mutually reinforce one another. For example, the loss of collective senses of security led to difficulties obtaining agricultural labour. This leads to a reduction in the crops planted and harvested which reduces food production and income sources. In turn, this prevents farmers from making financial investments to restore and rehabilitate their farming activities. The outcome is a negative situation which is difficult for farmers to break out of without some form of external support.

Food distribution

Explosive weapons use has also had long-term negative impacts on food distribution and access. In October 2024, an airstrike by Israeli armed forces struck a historic souq in Nabatieh city, causing large-scale destruction to market stalls which previously sold food and other essential amenities.[11] Approximately six months later, the market had reportedly still not returned to full functionality. Some market stalls had reportedly closed permanently whilst others moved to other locations, at financial costs for the traders.

Incidents such as the bombing of Nabatieh's souq contributed to people feeling unsafe about travelling to markets and, in some cases, limiting journeys to these locations. Approximately two-thirds of those interviewed stated that they had felt unsafe using roads or transport routes to markets at some point since October 2023. They highlighted concerns about airstrikes on roads and a general atmosphere of fear. Five interviewees referred specifically to the bombing of the Nabatieh souq, showing an awareness among communities of explosive weapons directly affecting civilian areas vital for food distribution and indicating the impact of this on perceptions of safety at food markets.

Conclusions

The intensity of explosive weapons use in Lebanon has reduced following the ceasefire agreement between Israel and Hezbollah in November 2024. Yet, it has not ended. Since the 26 January 2025 ceasefire extension, over 1,100 Israeli-launched air or drone strikes, and over 500 Israeli-launched shelling, artillery or missile strikes, have been reported in Lebanon.[12] Moreover, civilians in Lebanon – including those distant in time and space from where the weapons first struck – continue to live through the devasting effects of explosive weapons. Many of these were foreseeable. These same effects can be expected to arise in other conflict contexts if explosive weapons are employed with such intensity in proximity to civilians and civilian objects as has occurred in Lebanon.

As such, the findings highlighted here underscore once again the seriousness with which parties to conflict must take action to strengthen the protection of civilians from the foreseeable harms arising from the use of explosive weapons in populated areas.

The tail of a 120mm mortar on a street in Donetsk, Ukraine.
© Dirk-Jan Visser / PAX and UNOCHA

FROM COMMITMENT TO PRACTICE

LEVERAGING EVIDENCE TO STRENGTHEN CIVILIAN PROTECTION FROM EXPLOSIVE WEAPONS

LAURA BOILLOT (ARTICLE 36), JOE EMMETT (AIRWARS), AND MEGAN KARLSHØJ-PEDERSEN (AIRWARS)

This article argues that endorsing the EWIPA Political Declaration is insufficient on its own to prevent civilian harm from explosive weapons in populated areas. Drawing on case studies involving endorsing states, it shows how even precision-guided munitions continue to cause severe civilian casualties due to inherent blast and fragmentation effects and contextual factors. The authors emphasise the need for evidence-driven implementation, including restraint and avoidance, weapon-specific restrictions, systematic civilian harm tracking, and learning processes that translate data into concrete operational and policy change.

Introduction

Since the *Political Declaration on Strengthening the Protection of Civilians from the Humanitarian Consequences Arising from the Use of Explosive Weapons in Populated Areas* was opened for adoption in 2022, 90 states have endorsed it. In doing so, they committed to strengthening the protection of civilians by restricting the use of explosive weapons in populated areas (EWIPA) and by addressing the humanitarian consequences when such weapons are used.

In the years since the Declaration's adoption, however, the use of explosive weapons has continued at unprecedented levels. While much of this increase has been driven by conflicts involving states that have not endorsed the Declaration, civilian harm has also continued to occur in operations conducted by endorsing states. This underscores a central premise of the Declaration. Civilian harm from the use of explosive weapons by state actors is not confined only to situations of disregard for legal norms but can also arise even where states emphasise compliance with international humanitarian law, conduct attacks on legitimate military targets, and use advanced targeting and weapon systems.

This reflects a fundamental characteristic of explosive weapons. By their nature, many generate blast and fragmentation effects that can extend beyond the immediate target area. In populated and urban environments, these effects are further shaped by the built environment, where structures may sometimes shield civilians but can also amplify or redirect explosive force, trigger secondary explosions, and cause cascading damage to civilian infrastructure. As a result, the use of explosive weapons in populated areas carries inherent and foreseeable risks to civilians.

It is in this context that the Declaration's added value becomes clear. International humanitarian law establishes essential legal obligations, but it does not prescribe how states should account for the effects of explosive weapons in populated areas, how urban warfare should be conducted, or what concrete measures should be put in place to prevent or mitigate civilian harm. These issues are addressed through national policies, doctrine, targeting procedures, training, and systems for tracking, analysing, and learning from harm.

Yet implementation discussions so far suggest that some states continue to rely heavily on assertions of legal compliance or the sufficiency of existing policies, rather than engaging in detailed examination of how EWIPA-specific risks are managed in practice.

This article examines what effective implementation of the Declaration requires in light of these challenges. It first presents three incidents in which the use of explosive weapons in populated areas by endorsing states to the EWIPA declaration resulted in significant civilian harm. The purpose is not to condemn individual states reportedly responsible for this harm, but instead to illustrate recurring harm factors and to demonstrate why endorsement and procedural steps alone are insufficient to prevent civilian harm.

The article then explores how evidence from these cases can inform more effective implementation using the military implementation toolkit[13] developed by Article 36 and Airwars as an analytical framework. It examines how national policies and practices can be strengthened to prevent harm – through restraint and avoidance, weapon-specific limitations, improved civilian harm tracking, and learning processes that translate evidence into operational and policy change. In doing so, it aims to support constructive, evidence-informed dialogue on closing the gap between political commitment and practice, and on ensuring that the Declaration remains grounded in the realities it was designed to address.

Incidents of civilian harm from the use of explosive weapons – case studies[14]

Airstrikes on housing in Sa'ada, Yemen, by US armed forces, March 2025

On the night of 15 March 2025, an alleged strike by US armed forces during Operation Rough Rider reportedly killed at least 10 civilians, including a woman and nine children in a neighbourhood of Saada City, in northwest Yemen.[15] Two residential houses were destroyed in the attack.

Based on debris photographed at the site, the attack was conducted with Tomahawk Land Attack Missiles (TLAMs).[16] These are American-designed long-range cruise missiles often launched from naval vessels. They employ four different guidance systems to reach predesignated target coordinates: GPS, inertial navigation, Terrain Contour Matching and Digital Scene Matching.[17] Yet despite this sophisticated array of precision guidance systems, the use of an explosive weapon with such a large explosive load led to severe civilian harm when it was used in a neighbourhood with civilian residences.

Endorsers of the EWIPA Political Declaration should look to restrict and refrain the use of heavy munitions such as the Tomahawk in populated areas. The high-explosive-power and blast-fragmentation warhead used in the Tomahawk make it highly prone to producing wide-area effects. The presence of 120 kg of high explosives in the warhead can also lead to significant overpressure effects from the explosives, as well as fragmentation from the bomb casing and materials in the surrounding environment. The use of such a weapon in a populated area can therefore negate many of the alleged benefits offered by precision as the impacted area often extends far beyond the original target.

Use of drones by Turkish and Somali armed forces, March 2024

As part of Türkiye's ongoing military operations in support of Somali armed forces, Bayraktar TB2 UCAVs have been employed to conduct strikes against suspected militants. On 18 March 2024, a farm in the Lower Shabelle region was struck during a Somali military operation in which Turkish drones were used. It remains unclear which states' armed forces were operating the drones at the time of the airstrike.[18] At least 23 civilians were reportedly killed in the attacks, with others injured. Somali forces later claimed they were targeting Al-Shabaab fighters in the area.

Debris analysed by Amnesty International found that Turkish-designed MAM-L air-delivered bombs were also employed. The MAM-L, which can be launched by Bayraktar TB2 drones, has been extensively documented by the Open Source Munitions Portal (OSMP) during its use across the region.[19] The munition itself has a relatively small weight of 22 kg and can use a number of warhead variants, including blast-fragmentation, anti-tank, and thermobaric. Guidance primarily relies on drone operators painting a target using onboard laser designators, while GPS and inertial navigation provide an additional layer of control.

Even with these systems, this incident exemplifies civilian harm from munitions equipped with smaller warheads and precision guidance, possibly based on faulty intelligence and an over-reliance on precision as an inherent mitigator. While explosive weapons with large warheads are often associated with wide-area effects, smaller munitions can also cause serious civilian harm when used in populated areas. Blast and fragmentation effects are relative to the target and surrounding environment, and can extend beyond the point of impact, affecting civilians and civilian objects nearby.

Airstrike in Iraq by Dutch armed forces, June 2015

During the night of the 2nd June 2015, an airstrike by Dutch armed forces targeting the Islamic State in Hawija, Iraq, killed at least 70 civilians alongside a large number of militants.[20] The airstrike was targeting a car-bomb factory; ss a result of the initial strike, approximately 18,000 kg of TNT ignited, flattening many buildings in the surrounding area that were hosting residents and displaced Iraqi civilians.[21] After a major investigation by Dutch media forced the Dutch Ministry of Defence to accept responsibility four years later in 2019, it was revealed that the Netherlands made the decision to conduct the strike as they had small and precise munitions. Five GBU-39 Small Diameter Bombs (SDBs) and one 500-pound bomb were used in the strike.[22]

The GBU-39 SDB is an American-designed GPS and inertially guided air-delivered bomb in the 250-pound weight class.[23] Its warhead is relatively small, containing 37 pounds (16.8 kg) of high explosive composition. The United States Air Force argues that the GBU-39 bomb's small size "inherently reduces the probability of collateral damage".[24]

One variant, called the GBU/39A/B Focused Lethality Munition (FLM), was even developed to use a 'focused-blast' explosive warhead to reduce fragmentation spread during strikes [25] and has been referred to as an "ultra-low collateral damage" munition.[26]

The presence of small and precise munitions failed to alleviate the risk to civilians in this instance due to a number of factors, some of which are often under-appreciated in planning. Notably, regardless of whether a munition is precise or not, the detonation of the contents of an IED factory negates precise targeting.

As a result of their involvement in this airstrike, the Dutch MoD undertook significant reform of its civilian harm mitigation and response mechanism. In the last five years, it has drastically improved its transparency mechanisms, its public reporting system, and its investigatory capacity.

Why the case studies matter for implementation

The case studies presented above are illustrative of patterns of harm from the use of explosive weapons in populated areas. Yet, they are far from the exceptions. They illustrate clearly that while endorsement of the EWIPA Political Declaration signals an important recognition of the risks posed by explosive weapons in populated areas, endorsement alone does not automatically lead to meaningful change.

The mechanisms through which harm arises – use of explosive weapons in populated environments, the projection of blast and fragmentation across an area, damage to civilian infrastructure – are precisely those the Declaration was designed to address. Its effectiveness therefore depends on whether implementation moves beyond formal endorsement and reaches the level where it influences operational decisions, which include promoting restraint and avoidance, prioritising protection of civilians, strengthening learning from harm, and ultimately preventing civilian harm.

States should proactively engage with this process, including by developing deliberate strategies to operationalise the Declaration's specific commitments and understanding and managing the technical factors that influence harm. These factors include weapons effects, the projection of blast and fragmentation which is especially complex in urban environments, the risk of secondary explosions, and navigating damage to civilian infrastructure.

Procedural foundations

Surveys of endorsing states of the Declaration and statements delivered at the two implementation conferences that have taken place since 2022 clearly illustrate that many states have taken important first steps towards strengthening policy and practice, illustrating that implementation is increasingly understood as a national policy development process aimed at guiding operational practice.[27] However, the depth and nature of implementation of the Declaration across national contexts varies.

Examples of national policy measures relevant to EWIPA Declaration implementation [28]

State	Measure
Switzerland	Adoption of an avoidance policy under which explosive weapons with wide-area effects should not be used in populated areas unless sufficient mitigation measures are in place – reflected in updated operational regulations for specific weapon systems (e.g. 81mm mortars).
Austria	Development of a specific national policy on the protection of civilians from the use of explosive weapons in populated areas (in progress), intended to guide doctrine, training, and operational planning across the armed forces.
Bosnia and Herzegovina	Review of operational doctrine to restrict the use of heavy explosive weapons in urban areas, strengthen target verification, and integrate assessment of indirect and reverberating effects.
Netherlands	Comprehensive review of civilian-harm policy following the Hawija strike, including a Civilian Harm Mitigation Baseline Study, revised doctrine & policy framework and procedures, enhanced parliamentary reporting, and engagement with external expertise; non-use of unguided ("dumb") air-dropped bombs in populated areas and explicit emphasis on restraint.
United States	A Civilian Harm Mitigation and Response Action Plan (CHMR-AP) and DoD Instruction 3000.17, embedded civilian-harm mitigation, assessment, and response across doctrine, training, and operations (while not yet introducing EWIPA-specific use restrictions) – but Government change in January 2024 has rolled back on this initiative.
Belgium	Integration of EWIPA-related considerations through NATO-aligned doctrine and collateral damage estimation methodologies, updated targeting procedures prioritising civilian protection, and designated military points of contact at strategic, legal, and operational levels to support coordination and implementation.

Taken together, these examples illustrate how implementation can move beyond procedural changes to the development of new policies that emphasise restraint, provide clearer guidance, and put in place restrictions and measures to promote civilian protection in practice.

These steps are important for embedding the Declaration domestically and creating the structures for overseeing and sustaining engagement. Bureaucratic and procedural activity, however, will not, on its own, change operational outcomes or immediately reduce civilian harm. Procedural changes need to lead to more substantive changes. Recent implementation discussions suggest a tendency among some states to frame implementation in broad, high-level terms rather than engaging with operational and technical detail. This sits uneasily alongside the concrete and recurring patterns of harm documented in the cases above, including a continued reliance on pre-existing policies or legal frameworks as sufficient risks, without confronting evidence of continuing harm, thereby insulating the Declaration from the lived realities of civilians affected by explosive weapons. As illustrated by the Hawija case, meaningful reductions in civilian harm emerged not from procedural alignment alone but from subsequent scrutiny, learning, and policy reform following the recognition of harm.

Maintaining an evidence-driven implementation focus

A defining feature of effective implementation is the extent to which data on civilian harm and on weapons effects is used to shape policy and operational decision-making. Evidence-driven implementation requires that data on harm, including civilian casualties and damage to infrastructure - gathered internally and through external sources - actively informs decisions about restraint, such as policies to limit certain weapons or use in certain contexts, or authorisation levels, and learning processes. As the examples above demonstrate, such as in the case of the Netherlands, where evidence of harm has been acknowledged and examined, implementation is more likely to translate into substantive policy change grounded in the realities of civilians living through armed conflict. This requires openness, scrutiny, and a willingness to engage with difficult questions, rather than reliance on assertions of compliance of international humanitarian law or the sufficiency of existing policies, which is a tendency among some states.

As the case studies illustrate, civilian harm has at times been identified primarily through independent investigations by media outlets, independent monitors, and civil society, rather than through official state-led processes. This underscores the importance of transparent harm identification and engagement with external evidence as a foundation for learning and prevention.

Ultimately, the Declaration will be judged by whether it leads to decisions that prevent civilian harm, not by assurances that current approaches are adequate. Achieving this requires sustained, technical, and practical engagement – ideally through open dialogue among states, armed forces, international organisations, and civil society – focused on how harm occurs and how it can be prevented in practice.

Recommendations and toolkit

From evidence to action - implementing the Political Declaration in practice

The case studies and data examined in this article underscore why the EWIPA Political Declaration places such emphasis on learning from civilian harm and translating that learning into concrete changes in policy and practice. Endorsement of the Declaration reflects recognition of the humanitarian risks posed by explosive weapons in populated areas and a commitment to address them. Fulfilling that commitment requires implementation that is deliberate, evidence-driven, and oriented toward prevention.

The Declaration's effectiveness will therefore depend on whether states use available evidence – including open-source information – to change how military decisions are made and how risks to civilians are addressed in operational settings. The military implementation toolkit developed by Article 36 and Airwars provides a practical framework to support this process. Drawing on the patterns of harm and operational challenges illustrated in the case studies above, several priority areas for action emerge.

Systematic tracking and analysis of civilian harm

Civilian harm tracking is the foundation of all mitigation efforts, as understanding the real impact of explosive weapon use is essential to identifying causes and preventing recurrence. However, in spite of growing recognition of the value and importance of armed forces tracking civilian harm resulting from their military operations, most armed forces still do not routinely track or investigate such harm.

It is vital that states establish mechanisms to record, investigate, and analyse civilian harm in real time, and ensure that findings are integrated into operational decision-making and, particularly, lessons-learned processes to drive sustained change. The lessons learned from civilian harm tracking should induce prompt and agile adaptations from militaries, as well as improvements to policy, doctrine, and training for future operations. Tracking mechanisms should actively feed into other civilian harm mitigation mechanisms, including investigations and response.

Militaries and states must proactively engage in dialogue with third parties (such as civil society organisations) and establish mechanisms for trust-based collaborative exercises in order to enable such organisations to support efforts on transparency, strengthening data quality, and supporting accountability.

Restricting and refraining from use

The above case studies underscore that even precision-guided munitions can cause severe civilian harm when used in populated areas, reinforcing the need for implementation approaches that prioritise restraint and, where appropriate, avoidance. Effective implementation must therefore include decisions not to use explosive weapons where civilian harm is foreseeable, supported by policies that explicitly address whether, when, and under what conditions particular weapons may be employed in populated environments. This, in turn, requires a strengthened understanding of the effects of different explosive weapons, including blast and fragmentation characteristics, wide-area effects, and the risks of secondary explosions in urban settings. Such analysis should inform explicit limitations on certain weapons, whether through avoidance policies, conditional use restrictions, or enhanced oversight and mitigation requirements. Where the use of explosive weapons in populated areas is nevertheless contemplated, authorisation frameworks should reflect the heightened risk to civilians, for example, through higher levels of approval, additional scrutiny, and weapon- and context-specific mitigation measures.

Conclusion

The continued and widespread civilian harm resulting from the use of explosive weapons in populated areas confirms the ongoing relevance of the EWIPA Political Declaration. While endorsement is an important starting point, the most meaningful change comes from the effective operationalisation of its commitments at the national level. This requires a strong focus on prevention, including building a culture of protection of civilians and moving away from the routine use of explosive weapons in cities, towns, and other populated areas. Ultimately, the credibility and impact of both the Declaration and its endorsing states depend on remaining closely connected to, and grounded in, the realities of harm experienced by civilians.

1. World Bank Group (2024). 'Lebanon: Interim Damage and Loss Assessment (DaLA)'. https://documents1.worldbank.org/curated/en/099111224112085259/pdf/P5063801c62fbe0c21beff1d0a436d07e02.pdf.
2. Information from Dr. Wassim Daher shared by email via Insecurity Insight partner. July 2025.
3. Human Rights Watch (2025). 'Lebanon: Destruction of Infrastructure Preventing Returns'. 17 February 2025. https://www.hrw.org/news/2025/02/17/lebanon-destruction-of-infrastructure-preventing-returns#:~:text=In%20Tyre%2C%20an%20Israeli%20strike,across%20southern%20Lebanon%2C%20told%20Human.
4. World Bank Group (2025). 'Lebanon Rapid Damage and Needs Assessment (RDNA)'. https://documents1.worldbank.org/curated/en/099030125012526525/pdf/P506380-f58e9761-b29e-4d62-97c3-ebf5a511c4e1.pdf.
5. World Bank Group (2024). 'Lebanon: Interim Damage and Loss Assessment (DaLA)'. https://documents1.worldbank.org/curated/en/099111224112085259/pdf/P5063801c62fbe0c21beff1d0a436d07e02.pdf.
6. J. Schillinger, G. Özerol and M. Heldeweg (2022). 'A socio-ecological perspective on the impacts of armed conflict on water resources management: case studies from the Middle East'. Geoforum, Vol. 133, 2022, pp. 101-116.
7. World Bank Group (2025). 'Lebanon Rapid Damage and Needs Assessment (RDNA)'. https://documents1.worldbank.org/curated/en/099030125012526525/pdf/P506380-f58e9761-b29e-4d62-97c3-ebf5a511c4e1.pdf.
8. Information from Dr. Wassim Daher shared by email via Insecurity Insight partner. July 2025.
9. Armed Conflict Location & Event Database (ACLED) dataset, accessed 21 January 2026.
10. FAO and WFP (2024). 'Special Report: 2024 FAO/WFP Crop and Food Security Assessment Mission (CFSAM) to the Lebanese Republic'. https://openknowledge.fao.org/server/api/core/bitstreams/2e334706-af64-4d5c-8831-c33aded38a7f/content.
11. Baal, S. (2024). 'Apocalyptic scene in Nabatieh: Israeli aviation destroys several centuries-old souks.' L'Orient Today. 13 October 2024. https://today.lorientlejour.com/article/1431198/apocalyptic-scene-in-nabatieh-israeli-aviation-destroys-several-centuries-old-souks.html.
12. Armed Conflict Location & Event Database (ACLED) dataset, accessed 21 January 2026.
13. Airwars and Article 36 (2025). Implementation Toolkit on Protection of Civilians from the Use of Explosive Weapons in Populated Areas. November 2025.
14. The analysis of three incidents of civilian harm involving the use of explosive weapons draws on munitions research by the Open Source Munitions Portal (OSMP), an online repository documenting munitions used in modern conflict. It contains nearly 1,400 verified images of munitions used in recent conflicts, alongside technical and contextual information on their use and impact.
15. Airwars (2025). 'Airwars Assessment'. 14 January 2026.
16. Open Source Munitions Portal (2025). 'OSMP1192'. 14 January 2026.
17. Open Source Munitions Portal (2026). 'RGM/UGM-109 Tomahawk Land Attack Missile (TLAM) series'. 14 January 2026.
18. Amnesty International (2024). 'Somalia: Death of 23 civilians in military strikes with Turkish drones may amount to war crimes – new investigation'. 15 January 2026.
19. Open Source Munitions Portal (2026). 'MAM-L'. 15 January 2026.
20. Airwars (2015). 'Airwars Assessment'. 15 January 2026
21. Saba Azeem, Lauren Gould, Erin Bijl & Jolle Demmers (2022), 'After the Strike: Exposing the civilian harm effects of the 2015 Dutch airstrike on Hawija'
22. Netherlands Ministry of Defence (2025). 'SUMMARY REPORT Commission of Inquiry Weapons Deployment Hawija'. 15 January 2026.
23. Open Source Munitions Portal (2025). 'The GBU-39 air-delivered bomb: a visual guide'. 15 January 2026.
24. United States Air Force (2026). 'GBU-39B Small Diameter Bomb Weapon System'. 14 January 2026
25. Boeing (2013). 'Boeing Delivers Final Focused Lethality Munition to US Air Force'. 14 January 2026.
26. Boeing (2008). 'Boeing Celebrates Small Diameter Bomb Delivery Milestones'. 14 January 2026.
27. Explosive Weapons Monitor (2025). 'An Assessment of Implementation of the Political Declaration on Explosive Weapons in Populated Areas'. November 2025.
28. Ibid.

EXPLOSIVE WEAPONS MONITOR

The Explosive Weapons Monitor is a research initiative of the International Network on Explosive Weapons (INEW). It conducts research and analysis on harms from and practices of explosive weapons use in populated areas and monitors universalisation and implementation of the Political Declaration on the Use of Explosive Weapons in Populated Areas.

WWW.EXPLOSIVEWEAPONSMONITOR.ORG
@WEAPONSMONITOR

September 2025