Documentation of the Use of Explosive Weapons in Populated Areas

Human Rights Watch and Harvard Law School’s International Human Rights Clinic

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Introduction
The phrase “explosive weapons in populated areas” is an emerging term in the field of international humanitarian law. The weapons involved and the impact such weapons have on civilians, however, are not new. Human Rights Watch has for decades researched and sought to minimize the harmful effects on civilians of the use of explosive weapons in populated areas, even though it, other non-governmental organizations (NGOs), governments, and UN agencies are only beginning to characterize them in that way. International conventions have completely banned two types of explosive weapons—antipersonnel landmines and cluster munitions—due to their devastating impact on civilian populations, but the broader issue of “explosive weapons in populated areas” is a widespread and longstanding one to which the international community should turn a focused and watchful eye.

Explosive weapons have been defined as weapons that “affect an area around the point of detonation, usually through the effects of blast and fragmentation.” As enumerated in the definitions section below, they range from hand grenades to air-dropped bombs. Populated areas can be understood as the same as “concentrations of civilians,” a term defined broadly in Protocol III to the Convention on Conventional Weapons.

Human Rights Watch is a founding member of the International Network on Explosive Weapons (INEW), a network of NGOs created in March 2011 that seeks “immediate action to prevent human suffering from the use of explosive weapons in populated areas.” INEW

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3 Ibid.
calls on states and other actors to acknowledge and “strive to avoid” the harm caused by such use of these weapons; gather and make available any relevant data; realize the rights of victims and survivors; and develop stronger international standards in this area.\textsuperscript{4}

NGOs are not the only ones to have expressed concern about the use of explosive weapons in populated areas. The UN Secretary-General has issued a report stating that the use of explosive weapons is “highly problematic in populated areas.”\textsuperscript{5} Moreover, the president of the International Committee of the Red Cross (ICRC), Jakob Kellenberger, highlighted the “devastating humanitarian consequences for civilian populations” of the increasing use of explosive weapons in densely populated urban areas.\textsuperscript{6}

This paper advances INEW’s call by illuminating the humanitarian problems associated with explosive weapons in populated areas through selected documentation by Human Rights Watch. It also highlights Human Rights Watch’s concerns about these problems, which predate the articulation of the language of “explosive weapons."

The use of explosive weapons in populated areas has occurred in nearly every geographical region, and Human Rights Watch has documented it in Africa,\textsuperscript{7} the Americas,\textsuperscript{8} Asia,\textsuperscript{9} Central Asia,\textsuperscript{10} Europe,\textsuperscript{11} and the Middle East.\textsuperscript{12} This paper focuses on three recent

\textsuperscript{4} Ibid.


case studies—in chronological order, Sri Lanka, Somalia, and Libya—and for each provides information about users and types of explosive weapons, patterns of use in populated areas, and civilian harm. The case studies exemplify the ongoing nature of the problem as well as the range of responsible actors, categories of munitions, and locations of attacks. The case studies also shed light on the shared characteristics of the harm to civilians, which include death and bodily injury, destruction of infrastructure, and long-term effects on individual lives and livelihoods. These commonalities underline the need for the international community to focus on and address the use of explosive weapons in populated areas.

Terms and Concepts

**Explosive Weapons**

The NGO Landmine Action, now known as Action on Armed Violence (AOAV), has put forward a useful concept and explanation of the term “explosive weapons.” It describes explosive weapons as weapons that “cause injury, death or damage by projecting explosive blast, and often fragmentation, from the detonation of an explosive device.” They are conventional weapons and thus do not encompass nuclear, biological, or chemical weapons. They do not include all conventional weapons, however. For example, firearms and incendiary weapons do not fall in this category. In its 2009 report *Explosive Violence: The Problem of Explosive Weapon*, Landmine Action presented the following non-exhaustive list of explosive weapons:

- **Air-dropped Bombs** – Explosive weapons dropped from aircraft.
- **Booby traps** – Victim-activated explosive weapons designed or improvised to detonate when an apparently harmless act is performed.
- **Demolition charges** – Blocks of explosive for engineering or sabotage use.
- **Grenades** – Relatively small “land-service” explosive weapons for use against personnel or vehicles, which can be either thrown or fired from weapons.

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14 Ibid.
Improvised Explosive Devices (IEDs) – Explosive weapons (of any class, e.g. grenade, bomb, rocket) that are not mass produced. However, IEDs may use mass produced explosives or explosive ordnance as a component....

Landmines – Generally victim activated explosive weapons....

Missiles – Missiles have a propulsion system and a guidance system....

Mortar bombs – Mortar bombs are indirect fire weapons which are normally (but not always) muzzle-loaded....

Projectiles – Explosive projectiles are fired through a barrel by the ignition of a propellant charge.... [Projectiles include artillery shells.]

Rockets – Rockets are unguided munitions with an integral propulsion system....

Submunitions – Submunitions are smaller explosive weapons delivered by carrier bombs, projectiles or mortar bombs (often “cluster munitions”).

Underwater – There are a variety of explosive weapons intended for detonation underwater....

Landmine Action notes some of these categories of weapons can also contain non-explosive payloads.16

Three types of explosive weapons—artillery, mortars, and rockets—were used in each of the case studies discussed in this paper. Other types used in at least one of these conflicts include: air-dropped bombs, antipersonnel mines, antivehicle mines, cluster munitions, and rocket-propelled grenades.

Populated Areas

The term “populated areas” should be broadly construed in order to encompass the types of areas in which civilians are most likely harmed by explosive weapons. INEW bases its definition of populated areas on that of “concentration of civilians” in Protocol III to the Convention on Conventional Weapons. According to the protocol:

“Concentration of civilians” means any concentration of civilians, be it permanent or temporary, such as in inhabited parts of cities, or inhabited

15 Ibid, pp. 19-20. See the Landmine Action report for subcategories of most of these types of weapons.
16 Ibid, p. 20.
towns or villages, or as in camps or columns of refugees or evacuees, or groups of nomads.  

**International Humanitarian Law**

International humanitarian law, also called the laws of war, provides an important context for the case studies below and can be used to assess the attacks this paper describes. International humanitarian law imposes upon all parties to an armed conflict, including non-state armed groups, legal obligations to reduce unnecessary suffering and protect civilians and other noncombatants. The fundamental tenets of this law are “civilian immunity” and “distinction.” These tenets impose a duty at all times during the conflict to distinguish between combatants and civilians, and to target only combatants. This body of law also protects civilian objects, which are defined as anything not considered a military objective. It prohibits direct attacks against civilian objects, such as homes, places of worship, hospitals, and schools, unless they are being used for military purposes.

Under international humanitarian law, deliberate attacks against civilians and indiscriminate attacks are both unlawful. Indiscriminate attacks are those of a nature to strike military objectives and civilians or civilian objects without distinction. Examples of indiscriminate attacks are those that are not directed at a specific military objective or that use weapons that cannot be directed at a specific military objective. Prohibited indiscriminate attacks include area bombardment, which are attacks by artillery or other means that treat as a single military objective a number of clearly separated and distinct military objectives located in an area containing a concentration of civilians and civilian objects. Also prohibited are attacks that violate the principle of proportionality: attacks

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19. Article 48 states, “Parties to the conflict shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives.” Ibid., art. 48.
20. Military objectives are combatants and those objects that “by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.” Ibid., art. 52(2).
22. Protocol I, art. 51(4) and (5)(a).
that are expected to cause incidental loss of civilian life or damage to civilian objects that would be excessive in relation to the concrete and direct military advantage anticipated from the attack.\textsuperscript{23}

Humanitarian law requires that the parties to a conflict take constant care during military operations to spare the civilian population and to “take all feasible precautions” to avoid or minimize the incidental loss of civilian life and damage to civilian objects.\textsuperscript{24} These precautions include doing everything feasible to verify that the objects of attack are military objectives and not civilians or civilian objects and giving “effective advance warning” of attacks when circumstances permit.\textsuperscript{25} They must also avoid locating military objectives near densely populated areas and endeavor to remove a civilian population from the vicinity of military objectives.\textsuperscript{26}

The presence of civilians in the vicinity of the fighting places obligations on warring parties to take steps to minimize harm to civilians. Belligerents are prohibited from using civilians to shield military objectives or operations from attack; “shielding” refers to purposefully using the presence of civilians to render military forces or areas immune from attack.\textsuperscript{27}

The case studies below not only illustrate the civilian harm that can be caused by the use of explosive weapons in populated areas, but also raise many concerns under these principles of international humanitarian law.

\textbf{Sri Lanka}

For more than 25 years the government of Sri Lanka engaged in an armed conflict with the separatist Liberation Tigers of Tamil Eelam (LTTE). This paper focuses on government forces’ extensive use of explosive weapons in populated areas during the final phase of the conflict, which took place between late 2008 and May 2009.\textsuperscript{28} During this period, Human Rights Watch issued two reports on the situation in Sri Lanka\textsuperscript{29} as well as six news releases, four commentaries, and one Q & A, all of which address the use of explosive weapons in populated areas.

\textsuperscript{23}Ibid., art. 51(5)(8).
\textsuperscript{24}Ibid., art. 57.
\textsuperscript{25}Ibid., art. 57(2).
\textsuperscript{26}Ibid., art. 58.
\textsuperscript{27}Ibid., art. 57(7).
\textsuperscript{29}Human Rights Watch, War on the Displaced; Human Rights Watch, Besieged, Displaced, and Detained.
weapons in populated areas.\textsuperscript{30} As documented by Human Rights Watch, the final phase of the Sri Lankan conflict illustrates the harm done to civilians through the use of a variety of explosive weapons by organized armed forces as part of a structured military campaign in populated areas.

\textit{Background}

A ceasefire that began in February 2002 effectively ended with the resumption of major military operations by both sides in mid-2006 in the country’s north and east. The LTTE forces slowly retreated to an enclave on the northeast coast of the island, forcing large numbers of ethnic Tamil civilians along with them.

In December 2008 Human Rights Watch released a report assessing the plight of civilians in this area, warning that the potential for large-scale civilian casualties was growing as the civilian population became concentrated in an increasingly smaller area of land and the fighting approached them.\textsuperscript{31} Less than one month later, after the fall of the LTTE’s administrative center, fighting in the enclave intensified as predicted. On May 18, 2009, the fighting ended with the LTTE’s defeat and the death of most LTTE leaders.

\textit{Users and Explosive Weapons}

Forces of the Sri Lankan government delivered a range of explosive weapons by land, air, and sea. Human Rights Watch and a Panel of Experts appointed by the UN Secretary-General (in a report welcomed by Human Rights Watch)\textsuperscript{32} documented use of the following explosive weapons:

- Air-dropped bombs
- Howitzers
- Long-range artillery
- Multi-barrel rocket launchers
- Small mortars
- Rocket-propelled grenades.\textsuperscript{33}

\textsuperscript{30} See Appendix A.
\textsuperscript{31} Human Rights Watch, \textit{Besieged, Displaced, and Detained}.
\textsuperscript{33} As noted in “Report of the Secretary General’s Panel of Experts on Accountability in Sri Lanka,” p.28.
Patterns of Use in Populated Areas

As the LTTE-controlled area shrank, the government unilaterally declared “no-fire zones” or “safe zones” on three different occasions, calling upon civilians to seek shelter there. The UN Panel of Experts estimated that between 300,000 and 330,000 civilians had gathered by February 2009 in what was known as the second “no-fire zone.” Nevertheless, government forces repeatedly and indiscriminately shelled densely populated areas, including the safe zones, sometimes using heavy artillery and area weapons incapable of distinguishing between civilians and combatants. Human Rights Watch highlighted the use of multi-barrel rocket launchers. These weapons cannot be directed with sufficient precision against military targets, and their broad area effect makes their use in areas with civilians or civilian objects (such as schools or hospitals) incompatible with international humanitarian law.34

Government forces repeatedly attacked the few hospitals that existed in LTTE-controlled areas. Between December 15, 2008 and May 2, 2009, Human Rights Watch documented 30 separate incidents of artillery shelling or aerial bombardments on or near hospitals.35 An aid worker described to Human Rights Watch an aerial attack on Valayanmadam hospital in the “no-fire zone” on April 2:

I noticed a Sri Lanka military drone conducting reconnaissance above the hospital. The people in the hospital suspected that an attack was imminent, so they lay down on the ground. Shortly thereafter, we heard a loud explosion in the air, followed by several smaller explosions on the ground. One of the explosions took place only a couple of meters from me. One of the doctors, who was lying just next to me, was killed by a shrapnel piece that hit him in the head.37

All attacks on hospitals are unlawful under international humanitarian law, unless an armed force is using them for military purposes.

It was not a violation of international humanitarian law for LTTE forces to enter safe zones unilaterally declared by the Sri Lankan government, and the law in turn did not prohibit government forces from attacking LTTE forces inside a safe zone. Having declared the area

34 Ibid.
37 Ibid.
a safe zone for civilians, however, the government encouraged civilians to go to the area, increasing the vulnerability of civilians in the event of an attack. By creating the zone, government forces took on a greater obligation to ensure that they spared civilians from the effects of attacks. Given this civilian presence, government forces should have carried out attacks on valid military targets in the safe zone only after issuing an effective advance warning that the area was no longer a zone protected from attack.

The Sri Lankan government sought to justify attacks that resulted in high civilian casualties on the grounds that civilians failed to heed its warnings to flee the areas, and that the LTTE’s use of civilians as shields rendered the LTTE fully responsible for any civilian loss. The government’s warnings were not effective, however, because it knew that the LTTE was preventing civilians from leaving areas under its control. In addition, under international humanitarian law, civilians who remain in combat zones remain protected from attacks as long as they are not directly participating in hostilities. Finally, the LTTE’s practice of locating its forces near densely populated areas or deliberately using civilians as shields did not make these civilians subject to attack. Violations of the laws of war by one side to a conflict do not justify violations by the opposing side.

**Civilian Harm**

A UN country team cited in the Panel of Experts report estimated that 7,721 people were killed and 18,479 injured from August 2008 to May 13, 2009 (after which the investigators found that counting became impossible). The panel’s report, however, accepted that a range of up to 40,000 civilian deaths could not be ruled out, leading Human Rights Watch to call for the Human Rights Council to order a full international investigation.

As noted above, despite government declarations of “safe zones” or “no-fire zones,” government forces used explosive weapons widely in these heavily populated areas, causing extensive civilian harm. In a “safe zone,” early in the morning on January 24, 2009, one shell struck a playground that functioned as a food distribution center, killing at least seven civilians and injuring 15. An eyewitness described the horror of the shelling to Human Rights Watch: “The shrapnel tore through the tents and temporary shelters just behind our bunker. The mangled body of a young woman landed in the entrance of our bunker. She had been decapitated by the blast. I had never seen that before. I couldn’t

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quite comprehend what I had just witnessed." A source counted 30 killed and 56 injured in and around the playground in little more than 24 hours on January 23 and 24.\(^{41}\)

The bombardment of hospitals increased the suffering of civilians who sought help in medical facilities, already horribly overcrowded and dangerously short of medical personnel, equipment, and supplies before the attacks. One of the deadliest attacks took place on May 2, 2009, when artillery shells struck Mullaivaikal hospital in the government-declared "no-fire zone," killing 68 people and wounding 87.\(^{42}\)

### A Voice from Sri Lanka

"Balakrishnan B." (not his real name), from Vallipunam, a town just outside the government declared safe zone, recounted to Human Rights Watch the shelling of the town on January 19, 2009:

There were about 40-50 people traveling along the road when the shelling started. The shelling lasted for about 15 minutes. About 10 shells landed in the immediate area, but we could hear shells landing further away as well. I was staying in the bunker during this time and for another 30 minutes. When I came out of the bunker, people were crying and shouting. A vehicle had already taken the injured to Vallipunam school [an IDP center]. One shell had landed in the middle of the road, however, killing three people who were still lying there when I came out. The shells were coming from SLA positions, from the southwest. We could hear them when they came in.\(^{43}\)

Balakrishnan told Human Rights Watch that there were no known LTTE positions in the vicinity at the time of the attack.

### Somalia

Decades of unremitting violence caused by successive political and military upheavals have produced a humanitarian crisis in Somalia. Since 2007, Human Rights Watch has published three reports and eight news releases detailing the impact of explosive

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\(^{41}\) Ibid, p 15.

\(^{42}\) "Sri Lanka: Repeated Shelling of Hospitals Evidence of War Crimes."

\(^{43}\) Human Rights Watch, *War on the Displaced*, p. 11.
weapons on the civilian population in Somalia. All parties to the current conflict have reportedly targeted populated areas with explosive weapons, sometimes using civilians as human shields and exploiting humanitarian harm for their own political and military agendas.

**Background**

Somalia has lacked a stable federal government for more than two decades and has recently experienced an upsurge in violence. Since January 2007, when Ethiopian forces helped establish the Somali Transitional Federal Government (TFG) in Mogadishu, residents of the capital city have suffered an onslaught of attacks by insurgent forces, most notably the Islamist armed group al-Shabaab, as well as counter-strikes by the alliance of the TFG, the African Union Mission in Somalia (AMISOM), the Ethiopian-supported pro-TFG militias Ahlu Sunna Wal Jamaah and Ras Kamboni, and Kenyan supported-militias.

**Users and Explosive Weapons**

Both the TFG, supported by AMISOM, and al-Shabaab have regularly fired indiscriminately upon residential neighborhoods of Mogadishu. Since 2007, all sides have used:

- Artillery
- Katyusha rockets
- Mortars.

In most if not all cases, these weapons have proven to be too imprecise to be used in populated areas without causing unavoidable deaths and injuries to civilians.

**Patterns of Use in Populated Areas**

Clashes between AMISOM and TFG forces and al-Shabaab have involved repeated shelling of populated civilian areas in and around Mogadishu and have nearly always resulted in civilian casualties. Bakara Market, an area of the capital that remains heavily populated and serves as the center of civilian life, has experienced regular indiscriminate attacks by AMISOM, and a district official described it as the “People’s Butcher.” In May 2011, for

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44 See Appendix B.
45 Human Right Watch, You Don’t Know Who to Blame, p. 9.
46 Human Rights Watch, So Much to Fear, p. 33.
47 Human Rights Watch, You Don’t Know Who to Blame, p. 16.
example, mortar rounds struck the market, reportedly killing 15 people and wounding 80 more.48

Attacks on Mogadishu took place on an almost daily basis and followed a common pattern up to August 2011 when al-Shabaab withdrew from the city. Al-Shabaab insurgents typically assembled mortars using populated residential neighborhoods as unwilling shields and then indiscriminately fired several rounds in the direction of TFG/AMISOM installations. Generally al-Shabaab made no effort to remove the civilian population from the firing areas. O.L. of Mogadishu told Human Rights Watch that al-Shabaab did not provide citizens with advance notice that they would be firing mortar shells into neighborhoods or permit them to flee to safer areas. O.L. said, “Al-Shabaab doesn’t let people go when an attack is coming because they want to be with them and use them as a human shield.”49 Human Rights Watch also found no evidence that insurgent groups used spotters to guide their mortar fire. As a result, attacks frequently fell on civilians caught in the general vicinity of their targets. After the rounds were fired, the al-Shabaab fighters fled the area, leaving civilians to face the inevitable counter-battery fire from TFG and AMISOM forces, which often resulted in high numbers of additional civilian casualties.

Both sides have used explosive weapons in the same populated area, and civilians have not known where to turn to escape the shelling. A woman who had fled Mogadishu told Human Rights Watch, “Both sides don’t spare the public. Sometimes it happens that the person you had breakfast with in the morning is killed by mortars in the afternoon.”50 She noted that the use of populated areas was intentional and tactical:

Al-Shabaab is fond of firing weapons from residential areas, knowing very clearly that the other side is going to return fire to the same place. Then al-Shabaab runs away. And the TFG and AMISOM don’t care whether there are civilians or not in the places they fire on. You don’t know whom to blame—do you blame al-Shabaab for hiding among the public, or the government for hitting back at the same place they were fired on?51

48 Ibid.
49 Human Rights Watch interview with O.L., Ifo refugee camp, April 20, 2011.
51 Human Rights Watch, You Don’t Know Who to Blame, p. 18.
**Civilian Harm**

Somali civilians have borne the brunt of the fighting and experienced serious violations of humanitarian law by all parties to the conflict, including indiscriminate shelling of civilian areas and infrastructure. Since late 2010, the country has suffered more than 4,000 civilian casualties, including more than 1,000 deaths, and tens of thousands of civilian displacements. According to the World Health Organization (WHO), 3,900 injured civilians were admitted to hospitals in Mogadishu between January 1 and June 1, 2011 as a result of the fighting, and in May, almost half of the 1,590 admitted were children under the age of five.

Explosive weapons have also damaged infrastructure, leading to both immediate harm and longer-term effects, such as hampering future educational and medical services. Human Rights Watch interviewed H.P., a displaced civilian from the capital, who said of the fighting in Mogadishu, “There are several places where schools and health centers were destroyed by heavy weapons from both sides. It’s difficult to know if this is intentional.”

The suffering experienced by civilians as a result of the use of explosive weapons in populated areas has been compounded by one of the worst droughts in recent history in Somalia, especially across the southern parts of the country. Kenya has long served as host for several hundred thousand Somali refugees, a burden that has increased in the past year as the indiscriminate shelling of populated areas and the ravages of drought have driven hundreds of thousands of Somalis from their homes, including over 100,000 who have crossed into Kenya.

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52 Ibid., p. 1.
53 Ibid.
55 Human Rights Watch interview with H.P., Ifo refugee camp, April 21, 2011.
A Voice from Somalia

One woman who was living near the livestock market in northern Mogadishu recounted to Human Rights Watch how she lost three of her five children one night in late February 2008:

That evening there were some gunshots in the area, in the direction of the main road. But there was not so much fighting at that moment. We could just occasionally hear gunshots. Then the rocket landed on the left side of our compound... I could not see anything because of the smoke and dust. There was a lot of blood. I tried to escape and search for my children as people were gathering around.58

Four of her children were badly injured, and two of them died before she could get them to a hospital—a six-month-old girl and a seven-year-old boy. Her 15-year-old son disappeared that night, but no body was found and months later his mother still insisted that he had not been killed. “He must have just run away and not looked back after it happened,” she said.

Libya

Fighting between Muammar Gaddafi’s military and rebel forces supported by a NATO-led coalition began in February 2011 and culminated in the death of Gaddafi on October 20, 2011. During this time, Human Rights Watch has documented some of the instances and impacts of the use of explosive weapons in populated areas in this armed conflict. Although Human Rights Watch has not produced a full-length report because the conflict is so recent, as of October 25, 2011, it had published 15 news releases, a briefing note, and two commentaries on the subject, as well as provided real time updates online during some of the fighting, many of which addressed the use of explosive weapons.59 The situation in Libya highlights the similar humanitarian effects caused by the use explosive weapons in different types of populated areas, ranging from small towns to major cities.

58 Human Rights Watch, So Much to Fear, p. 34.
59 See Appendix C.
Background
In February 2011 protests against Muammar Gaddafi’s government began in a number of Libyan cities. These protests prompted a violent crack-down by government forces, which in turn led to an armed conflict between government and rebel armed forces. The initial phases of this conflict prompted widespread international condemnation,\(^{60}\) and resulted in the deployment of NATO-led coalition forces to the region pursuant to UN Security Council Resolution 1973 of 2011.\(^{61}\) These forces created a no-fly zone and conducted airstrikes against government ground forces.\(^{62}\) The fighting was concentrated in civilian areas, as government and opposition forces battled for control of the strategic major population centers along the coast.

Users and Explosive Weapons
All parties to the conflict appear to have used explosive weapons in populated areas. Due to the preponderance of available evidence, however, this section focuses mainly on the use of explosive weapons by pro-Gaddafi troops, rather than by rebel or coalition forces.

Human Rights Watch’s reporting of the conflict has confirmed the use, or received credible reports of the use, of various types of explosive weapons in populated areas. These weapons include:

- Antipersonnel mines\(^{63}\)
- Air-dropped bombs\(^{64}\)

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• Antivehicle mines\textsuperscript{65}
• Artillery shells\textsuperscript{66}
• Cluster munitions\textsuperscript{67}
• Grad rockets\textsuperscript{68}
• Mortar rounds\textsuperscript{69}
• Tank shells\textsuperscript{70}

Patterns of Use in Populated Areas
Armed forces used explosive weapons in Libya in or near population centers of varying sizes and densities. Human Rights Watch's reporting highlights a number of these locations including Takut,\textsuperscript{71} Zintan,\textsuperscript{72} Nalut,\textsuperscript{73} and Misrata,\textsuperscript{74} with populations ranging from 10,000 to 300,000 people. Fighting also took place in Tripoli, the capital city of more than 1.5 million people. The similar effects across these locations, discussed below, illustrate the need to construe the concept of a populated area in as broad a fashion as possible.


\textsuperscript{70} "Government Attacks in Misrata Kill Civilians," Human Rights Watch news release.

\textsuperscript{71} A small town with a population of approximately 10,000 persons. See "End Indiscriminate Attacks in Western Mountain Towns," Human Rights Watch news release.

\textsuperscript{72} A town with a population of approximately 40,000 persons. See "Rocket Attacks on Western Mountain Towns," Human Rights Watch news release.

\textsuperscript{73} A large town with a population of approximately 93,000 persons. See "End Indiscriminate Attacks in Western Mountain Towns," Human Rights Watch news release.

\textsuperscript{74} A city with a population of more than 300,000 persons. See "Government Attacks in Misrata Kill Civilians," Human Rights Watch news release.
While government forces ostensibly used explosive weapons in the above populated areas to drive rebel forces from their strongholds, Human Rights Watch has found little evidence of the existence of rebel forces or military objectives in most of the affected areas,\textsuperscript{75} and it has heard reports of attacks on buildings not being used by rebel forces.\textsuperscript{76} Furthermore, Human Rights Watch has documented widespread use by Gaddafi forces of the Soviet-made Grad, one of the world’s most inaccurate rocket systems.\textsuperscript{77} As in the conflicts in Sri Lanka and Somalia, the use of explosive weapons in populated areas during the Libyan conflict was thus indiscriminate in both targeting methods and the specific weapons used.

**Civilian Harm**

The use of explosive weapons killed and injured hundreds and likely thousands of civilians in Libya. For example, Walid Muhammad Ehteba, a 25-year-old law student, was killed in a rocket attack along with at least seven other civilians while queuing for bread.\textsuperscript{78} The injuries sustained by those who survive have often been permanently debilitating in nature and include loss of limbs, serious eye injuries, and loss of hearing. These effects have been exacerbated by the use of explosive weapons against a number of already overstretched medical facilities. For example, mortar fire forced the evacuation of the Polyclinic in Misrata,\textsuperscript{79} and it wounded four civilians at the Zawiyat el-Mahjoub medical clinic in the same city.\textsuperscript{80}

Hospitals are just one category of civilian infrastructure that was affected by the use of explosive weapons in populated areas in this conflict. Schools, mosques, and homes have also suffered damage and destruction, and the ongoing conflict hampered immediate repairs. One refugee, forced to flee because of a bombardment near his home, told Human Rights Watch, “Some houses were destroyed, some mosques, even the Zintan hospital grounds were hit by three or four rockets. They hit some schools, but they were mostly focusing on the houses.”\textsuperscript{81} Such attacks, which are violations of international humanitarian law, will have long-term as well as immediate adverse impacts on the civilian population. Many civilians have fled their homes out of fear for the safety of their, or their

\textsuperscript{75}“Indiscriminate Attacks Kill Civilians,” Human Rights Watch news release, “Rocket Attacks on Western Mountain Towns,” Human Rights Watch news release.

\textsuperscript{76}“End Indiscriminate Attacks in Western Mountain Towns,” Human Rights Watch news release.

\textsuperscript{77}“Indiscriminate Attacks Kill Civilians,” Human Rights Watch news release.

\textsuperscript{78}Ibid.

\textsuperscript{79}“Government Attacks in Misrata Kill Civilians,” Human Rights Watch news release.

\textsuperscript{80}“Indiscriminate Attacks Kill Civilians,” Human Rights Watch news release.

\textsuperscript{81}“End Indiscriminate Attacks in Western Mountain Towns,” Human Rights Watch news release.
families’, lives.\textsuperscript{82} Even once they return, the damage to infrastructure will interfere with the rebuilding of their communities.

The widespread use of explosive weapons in populated areas has also resulted in large quantities of explosive remnants of war, which will endanger civilians even after the conflict ends.\textsuperscript{83} For example, Gaddafi’s forces used landmines and cluster munitions, both of which are prohibited by international law and which can linger after a conflict, either in, or in close proximity to, major population centers. Moreover, the targeting of government munitions resupply vehicles by coalition airstrikes led to explosive weapons being dispersed, or “kicked out,” where they have remained strewn on the ground posing a serious danger to civilians. Human Rights Watch researchers witnessed Libyans collecting “souvenirs” from destroyed armored vehicles and picking up explosive ordnance.\textsuperscript{84}

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**A Voice from Libya**

Abdel Wahed (not his real name) told Human Rights Watch that at the time of evening prayer on April 24, 2011, a “Grad,” the term most refugees have used for government-fired munitions, landed next to his house in the residential neighborhood of Fra’een.\textsuperscript{85} “My relatives were sitting on the floor in the house, and four of them died [when the munition hit].” Wahed said that as he rushed to help after the munition struck, a secondary explosion scorch his face and caused other injuries. He spent several days in the Zintan hospital but was forced to leave after government-fired munitions exploded outside the facility. “Two rockets landed right in front of the hospital... and one of the nurses injured her hand,” he said. “My brother then took the car and brought me here to Tunisia.” Human Rights Watch interviewed Wahed at the Tataouine hospital in Tunisia, where he was being treated for shrapnel in his left foot and both hands, two wounds on his chest, and first-degree burns on his face.

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**Conclusion**

Use of explosive weapons in populated areas, regardless of the user, munition type, or intent, causes frequent and foreseeable harm to civilians. Due to the nature of the weapons and the locations targeted, these kinds of attacks kill and injure civilians, damage infrastructure, and leave behind explosive remnants of war. The

\textsuperscript{82} Ibid.; “Rocket Attacks on Western Mountain Towns,” Human Rights Watch news release.

\textsuperscript{83} “Abandoned Weapons, Landmines Endanger Civilians,” Human Rights Watch news release.

\textsuperscript{84} Ibid.

\textsuperscript{85} “Libya: End Indiscriminate Attacks in Western Mountain Towns,” Human Rights Watch news release.
use of antipersonnel landmines and cluster munitions, explosive weapons banned by a majority of countries, is becoming the exception and no longer the norm. Now the international community should evaluate what can be done to reduce the suffering caused by other types of explosive weapons that are used in populated areas and to give effect to international humanitarian law’s prescription that parties in armed conflict take all feasible precautions to avoid or minimize harm to civilian life and objects. To begin to address these problems, states and other actors should follow INEW’s call:

- Acknowledge that use of explosive weapons in populated areas tends to cause severe harm to individuals and communities and furthers suffering by damaging vital infrastructure;
- Strive to avoid such harm and suffering in any situation, review and strengthen national policies and practices on use of explosive weapons and gather and make available relevant data;
- Work for full realization of the rights of victims and survivors;
- Develop stronger international standards, including certain prohibitions and restrictions on the use of explosive weapons in populated areas.\(^{86}\)

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\(^{86}\)International Network on Explosive Weapons, “INEW Call Commentary.”
Appendix A – Sri Lanka

Reports


News releases


Commentaries


Other

Appendix B - Somalia

Reports


News Releases


Appendix C - Libya

Technical Briefing Note

News Releases


Commentaries
