

The humanitarian effects of cluster munitions: why should we worry?

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There is growing international concern about the humanitarian effects of cluster munitions, particularly following their use in Afghanistan, Chechnya, Iraq, Kosovo and most recently in Lebanon. Research indicates that, in the limited set of conflicts in which they have been used, submunitions from cluster weapons are a disproportionate hazard to civilians, both at the time of their use as well as post conflict.¹

This article provides a basic introduction to cluster munitions and their humanitarian effects. What is a cluster munition? What are cluster munitions for, and how have they actually been used? Why is concern about them growing among governments, United Nations agencies, humanitarian workers in the field and non-governmental organizations (NGOs)? Perhaps most importantly, why should political priority be given to addressing the problems that cluster munitions pose for civilians when there are so many other pressing problems worthy of attention at the international level?

Cluster munitions: what are they good for?

Cluster munitions and their components have been variously defined, and there is no universally agreed definition of a cluster munition. It is, however, generally accepted that a cluster munition is a container from which submunitions are scattered. Cluster munitions are often designed to be multipurpose weapons, effective against a range of targets, including armour, materiel and personnel. Although most people probably think of cluster weapons as munitions delivered by air, they can also be ground launched: besides artillery shells containing submunitions, systems are also in use that deploy from rockets and mortar shells.² When air delivered, the submunitions are known as bomblets; when ground launched, they are known as grenades. These submunitions are the dangerous parts of a cluster munition because they explode and cause damage through blast and fragmentation.

The main feature of a cluster munition is its explosive effect over a wide area: cluster munitions were originally invented to break up concentrations of armoured vehicles and infantry. They were first used in the Second World War by a number of forces, and were seen as a weapon with potential. Cluster munitions were further developed during the Cold War by both North Atlantic Treaty Organisation (NATO) and Warsaw Pact forces. Ostensibly, the weapons were for use in a “clean” military environment:

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to help settle the desperate battle widely predicted if concentrations of Warsaw Pact armour and troops flowed westward across the German plain.

In reality, matters never came to that. As a former senior British military commander recently observed:

...the last real tank battle known to the world, one in which the armoured formations of two armies manoeuvred against each other supported by artillery and air forces, one in which the tanks in formation were the deciding force, took place in the 1973 Arab–Israeli war on the Golan Heights and in the Sinai Desert ... [U]se of the tank as a machine of war organized in formation, designed to do battle and attain a definitive result, has not occurred during three decades. Nor, for that matter, is it ever likely to occur again, for the ways in which armoured formations could and should be used are no longer practical.³

Rather, almost from the very outset, the use of cluster munitions posed considerable risk to civilians. In 1943, the German air force dropped SD2 submunitions (referred to as “butterfly bombs”) on the British port of Grimsby. Only around one-quarter of the 1,000 submunitions dropped exploded on impact or within half an hour. These killed 14 people and ignited numerous fires. The rest of the bomblets lay unexploded on roads and roofs and caught in trees and hedges. Within an hour of the air raid “all clear” signal, another 31 people were killed—and many more injured—as they interacted with these bomblets. Despite immediate action by the authorities it took more than 10,000 hours of work over the next 18 days to clear the submunitions and re-open the port.⁴

Later, huge numbers of submunitions were dropped by American-led forces on civilian villages and fields and in the jungle in South-East Asia in the 1960s and 1970s to try to stem the flow of military aid to North Viet Nam. In Afghanistan, cluster munitions were widely used by the Soviets after their invasion in 1979, with many unexploded submunitions remaining a hazard in late 2001 and early 2002, when cluster munitions were again used, this time by the United States against the Taliban. Reports emerged in 2001 of a high risk of civilian casualties due to confusion between unexploded American BLU97s, which are yellow, and yellow food-aid parcels.⁵ Cluster bombs were also dropped on Kosovo in 1999, at well-documented humanitarian cost to civilians.⁶

In both conflicts with Iraq (in 1991 and 2003), American-led forces made extensive use of the ground-launched Multiple Launch Rocket System (MLRS), which is able to deploy a volley of rockets, each containing hundreds of submunitions—such as the M26 dual-purpose improved conventional munition (DPICM) with a total of 644 M77 submunitions known as “steel rain”—from the back of a truck. The M26 was also used more recently in Lebanon along with other types of cluster munitions, including the older BLU63, which had been used there 30 years previously as well. Less widely publicized has been the extensive use of cluster munitions by Russian forces in their military operations in Chechnya. Cluster bombs have also been used in a number of other conflicts, including in Sudan and in the war between Eritrea and Ethiopia, in which a refugee camp was cluster-bombed in 2000. These uses, especially in areas in which civilians are concentrated, have persistently raised questions about whether existing international humanitarian law sufficiently regulates the use of cluster munitions because of the negative, even unacceptable, impact they have on the lives and livelihoods of civilians.

What humanitarian problems do cluster munitions cause?

Cluster munitions pose a humanitarian threat to civilians both at the time of use and after conflict has ended because of their wide-area effect, and the inaccuracy and unreliability of the submunitions.

At the time of use, cluster munitions can kill and maim civilians. After use, submunitions that have failed to explode threaten civilians who come into contact with them, either accidentally or deliberately.

Many experts seem to agree that, unlike, say, anti-personnel mines, cluster munitions are not *inherently* indiscriminate. But, by their very design, cluster munitions have an indiscriminate wide-area effect that can make them difficult to target accurately. And, as has been described above, in practice, cluster munitions have often been used in the vicinity of civilians, against fixed targets, isolated vehicles or perhaps in a counter-fire role.

By their very design, cluster munitions have an indiscriminate wide-area effect.

If a submunition fails to explode as intended, it poses an explosive hazard to anyone—whether soldier or civilian—who might encounter it (and reduces the overall military effectiveness of the cluster munition). Manufacturers of cluster munitions have customarily claimed that their weapons are highly reliable. However, terrain and weather conditions, the age of the components, the explosive mixture in the submunitions, or the way the submunitions have been stored or handled can all affect reliability considerably. This means that, in practice, the reliability of submunitions is much lower than the figures proclaimed by manufacturers and recited by purchasing governments, as shown by the sheer number of so-called “duds” remaining after conflicts have ended. In Kosovo, for instance, the International Committee of the Red Cross (ICRC) reported that, based on conservative NATO estimates, “it can be assumed that around 30,000 unexploded bomblets remained after the conflict, of which less than a third are known to have been cleared in the following year”.⁷

Evidence from Afghanistan, Kosovo and elsewhere shows there is a much greater risk of being killed by a submunition than by an anti-personnel mine.⁸ This is because, unlike anti-personnel mines, cluster submunitions are designed to kill. At the time of the explosion, it is also probable that a greater number of people will be affected than if an anti-personnel mine explodes because submunitions contain more explosive power and metal fragmentation. The ICRC also observed that those killed or injured by submunitions in Kosovo were 4.9 times more likely to be under 14 years of age than victims of anti-personnel mines, and noted that “this may be due to the fact that such submunitions are often brightly coloured, lying on the ground, and assumed to be duds”.⁹

For survivors of submunition explosions, access to medical care is often limited. In Lao People’s Democratic Republic (PDR), for instance, some areas affected by unexploded submunitions are several hours’ walk from the nearest paved road, let alone the nearest medical facility.¹⁰ And hospitals that are equipped to deal with the most severe injuries may be even further away. Many people do not have their own transport. Many simply never make it. These long distances also mean that it is hard to receive the physiotherapy, psychosocial support and skill retraining needed for rehabilitation and socio-economic reintegration. Women and girls may experience even greater difficulties in accessing treatment, because the medical and rehabilitation staff are often men, who may face restrictions in treating female patients.¹¹

Those who survive a submunition explosion may suffer serious injuries such as loss of limbs, loss of sight and metal fragments in the torso and internal organs. They may also suffer psychological trauma. Many adults are unable to return to their jobs, either having to retrain or remaining unemployed. A study of the impact of unexploded ordnance (UXO) accidents on children in Lao PDR, which included cluster submunitions, found a range of disorders, including flashbacks, nightmares, poor memory, lack of concentration and behavioural changes.¹²

The threat or perceived threat of unexploded submunitions and other explosive remnants of war (ERW) can result in a persistent sense of insecurity and fear, which hampers efforts to rehabilitate people and to build confidence in peace in a post-conflict environment.¹³ The threat of UXO prevents or makes it extremely risky for people to access resources such as agricultural land and water, or to

attend schools and religious centres. Peacekeeping missions and deminers are also under threat from unexploded submunitions, and emergency relief and longer-term sustainable development programmes can also be impeded by their presence.

Some people deliberately handle unexploded submunitions in order to move them out of harm's way for other members of the community or to extract scrap metal and explosive for sale, as seen in Cambodia, Lao PDR and Viet Nam, and now in Lebanon. Economic pressure often forces people to use land that is still contaminated by unexploded submunitions. In some cases, people may change the use of the land to try to reduce the risk of making contact with subsurface submunitions that is posed by digging and ploughing. However, this usually means downgrading land use to a lower-income activity, such as switching from cash crops to hay in Kosovo.¹⁴ Contaminated land also sometimes directly affects larger scale economic development, such as proposed eco-tourism initiatives in Albania.¹⁵

The additional economic pressure of restricted land use is often combined with others: a loss in income from losing a breadwinner to a "dud" submunition, medical costs, the inability to attend school, and limited access to resources such as firewood and water. All serve to increase the economic burden on the family, the community and the local economy, often among populations that are the poorest of the poor.

Addressing the humanitarian effects of cluster munitions

INTERNATIONAL RESPONSES TO CLUSTER MUNITIONS

Humanitarian mine action programmes have been dealing with unexploded submunitions for decades. For instance, in mine clearance, *all* unexploded ordnance must be dealt with in order to return land to safe use, risk education deals with landmines and unexploded ordnance, and survivor assistance does not discriminate between those injured by landmines and those injured by other explosive remnants of war. The problem is that, until recently, there was little recognition among governments that submunitions pose a particular hazard to civilians where they have been used, and that submunitions pose particular risks for deminers.

International concern about the hazards of cluster munitions to civilians is not new, first emerging in the early 1970s in response to their use in South-East Asia. This and related concerns about four other weapon types, raised by Sweden, the ICRC and others, eventually helped lead to a new protocol to the Geneva Conventions on the protection of victims of international armed conflicts in 1977 and the 1980 Convention on Certain Conventional Weapons (CCW).

But cluster munitions were not specifically dealt with, and despite continued discussion among governments and various reports, little more happened on the issue until the late 1990s. The catalyst for change then was growing awareness of the humanitarian impact of unexploded ordnance, particularly after the use of cluster munitions in Kosovo. Cluster munitions and other forms of what would become known as explosive remnants of war had a greater impact on civilians in Kosovo than had been foreseen; it also became apparent that the ERW problem was greater than previously thought in places like Sudan, Iraq and Afghanistan.¹⁶

Pressure from NGOs and the ICRC began to build and, in late 2001, CCW states parties agreed to set up a Group of Governmental Experts to work on the issue of "ways and means to address" ERW (they also agreed a separate mandate to look at anti-vehicle mines, referred to euphemistically as "mines other than anti-personnel mines").¹⁷ No provisions were made to look at cluster munitions

specifically, however, apart from discussing “technical improvements and other means for relevant types of munitions, including submunitions, which could reduce the risk of such munitions becoming ERW”.¹⁸ In late 2003 the CCW agreed a new, legally binding protocol on ERW, Protocol V.¹⁹ This deals with the post-conflict effects of ERW and has provisions on information exchange, marking and fencing of hazardous areas, and assistance and cooperation between parties to the protocol, among other things.²⁰ While its generic measures capture some post-conflict aspects of the humanitarian problems created by unexploded submunitions, it deals with ERW generally, so there are no specific measures on cluster munitions.

The protocol will enter into force in November 2006, but it will not be applied retroactively, which means that areas already affected by unexploded submunitions and other ERW will not fall under its obligations. Parallel discussions on the implementation of and compliance with existing international humanitarian law (IHL) and on possible preventive measures regarding the design of certain types of munitions, including cluster submunitions, have been ongoing within the CCW framework, but no real progress has been made to date.

At the same time as the CCW Group of Governmental Experts was established, a number of NGOs began working in a more coordinated manner in response to the humanitarian problems caused by cluster munitions and other explosive remnants of war. In 2003, the Cluster Munition Coalition (CMC) was founded. The CMC was originally committed to campaigning on the humanitarian impacts of explosive remnants of war as a whole, but is now more focused on the specific problems of clusters munitions.²¹ As civil society momentum has built, some inroads have been made in engaging governments.²² Belgium has banned cluster munitions and Norway has put a national moratorium in place. Austria, Denmark, Holy See, Ireland, Jordan, Mexico, New Zealand, Norway, Spain and Sweden have all called for a legally binding international instrument on cluster munitions, with some of them specifically calling for a negotiating mandate to be agreed at the CCW’s Third Review Conference in late 2006. However, some other states, like the United States, have opposed this call and it seems unlikely to succeed.

REFRAMING THE ISSUE AS HUMANITARIAN ACTION

The Third Review Conference of the CCW will be an important test of whether concerns about the humanitarian impact of cluster munitions will be recognized and acted upon. However, considering its previous and ongoing failures to fully address the humanitarian aspects of weapons, be they anti-personnel mines, anti-vehicle mines or cluster munitions, a cynic might argue that it is unrealistic to expect the CCW to deal with cluster munitions successfully.

The CCW originates in international humanitarian law and its role is to look at specific weapons that cause humanitarian concerns. In practice, this weapon-specific approach has resulted in discussions being biased toward ensuring that the military utility of the weapon is retained, and away from considering *all* the aspects of the weapon and how they relate to one another.

Since 2001, issues related to cluster munitions have been divided into the negotiation of the modest post-conflict generic provisions of the ERW protocol and various discussions on preventive measures to reduce ERW (for instance, on reliability, targeting or whether existing IHL rules and principles are adequate). The emphasis has been on improving the design of the weapons and possible technical fixes to the problems, rather than comprehensive consideration of all the issues related to cluster munitions, both during time of use and afterward. As long as the CCW continues to regard cluster munitions in this fragmented way, there can be no effective response.

Technical fixes cannot eliminate the humanitarian problems created by cluster munitions. This is because reliability problems cannot be resolved purely by the design or manufacture of submunitions. As we have seen, the *actual* reliability of a submunition is dependent on the context in which it is used.²³ It is impossible to create a 100% reliable weapon, and since each cluster munition can release hundreds of submunitions, even a very low failure rate would create a high number of “duds”. This is illustrated by the newer M85 DPICM submunitions used by Israel in Lebanon: many failed to explode as intended despite being fitted with a self-destruct mechanism that is supposed to significantly reduce the failure rate.

Targeting problems could perhaps be resolved technically, by using sensor-guided submunitions that can discriminate between civilians and legitimate targets. In this case, it is possible that the improvements would mean that the weapons would no longer classify as cluster submunitions.

However, the likelihood of such a technical fix actually being implemented is not high: governments at the CCW often veto very modest technical improvement measures on grounds of costs. Very few states would be able to afford the new weapons—China and the Russian Federation have already said that they would not be able to replace all their submunitions—and even those that can afford them will be loath to “waste” their stockpiles of older-generation weapons. Despite a new standard for reliability, the United States permits use of all those older submunitions it has in stock.²⁴ In the end, the dangers of cluster munitions could be even greater, as there are simply more available.

Nonetheless, ongoing discussions at the CCW mean that governments have been able to say that they are working on cluster-munition issues—without the risk of rapid international movement toward practical action. States in favour of taking measures on cluster munitions are making little headway at the CCW because the arms control diplomats that administer the treaty usually insist on consensus, although the CCW does not require consensus decision making. Therefore, the states that are determined not to allow humanitarian concerns to trump military arguments by inhibiting the retention and use of cluster munitions are effectively able to prevent any progress.

Instead of looking through the prism of weapon-specific issues, it makes more sense to view cluster munitions in terms of their effects—effects that are beyond the capacity of designers or manufacturers to address. Continued use of cluster munitions—even with technical improvements—will result in more civilian casualties, not only causing death and injury, but also causing a longer-term socio-economic impact on individuals and communities. Consideration of these humanitarian effects would make it imperative for the international community to take action by creating new international humanitarian law, as it did for anti-personnel mines.

States have obligations under international humanitarian law to protect civilians during war. Attacks that strike military objects and civilians or civilian objects without distinction are considered indiscriminate and are prohibited.²⁵ Without going into a detailed legal analysis (which is taken up by Louis Maresca elsewhere in this issue), damage done during cluster-munition strikes raises concerns under what is known in IHL as the *proportionality test*, which balances military advantage and civilian impact. As Human Rights Watch has observed:

Certain kinds of cluster munition attacks tend to tip the scale toward being disproportionate. Strikes in or near populated areas are particularly problematic because when combatants and civilians commingle, civilian casualties are difficult to avoid. ... [A] cluster munition strike on a populated area should be considered indiscriminate under the law, unless the military, which should bear the burden of proof, could show the military advantage of a particular strike outweighed the civilian harm.²⁶

Obviously, this burden of proof would not be easy to achieve, and major users like the United Kingdom and the United States resist such a notion as unfeasible, while at the same time claiming to

meet its requirements. For their part, most governments are willing to go so far as to admit that in conflict accidents sometimes happen—a cluster bomb goes astray or military forces occasionally target civilians mistakenly. However, many are reluctant to accept the factual evidence that such cases are more than mere blips, but represent a trend stemming from the problematic nature of the weapon itself.

Governments also argue that cluster munitions are a useful—even vital—weapon from a soldier's perspective. But it is not clear that there is any consensus among soldiers that cluster munitions have attractive military benefits beyond stand-by capabilities in an extreme contingency, especially as the failure rate of such weapons means they could pose a risk to friendly troops in the area after use. In many cases of cluster-munition strikes in which civilians suffered, it is apparent that this weapon system was used because it was on the shelf or in the rocket tube, not because it was the optimum weapon for the mission. This certainly appeared to be the case in incidents involving the MLRS system in Iraq in 2003. All the same, governments argue that better compliance with existing IHL rules, and perhaps technical improvements, are all that is needed. They are not yet convinced that cluster munitions require specific international legal restrictions.

Seen in the light of their humanitarian effects and existing IHL rules, states should not use cluster munitions that have an indiscriminate area effect or that pose a foreseeable risk to civilians after use.

In this they part ways from the humanitarian community and—increasingly—governments also concerned about the human costs of cluster munitions. Seen in the light of their humanitarian effects and existing IHL rules, states should not use cluster munitions that have an indiscriminate area effect or that pose a foreseeable risk to civilians after use. And given the historical record of users overlooking or discounting these effects and of bending interpretation of IHL's application in specific contexts, more explicit rules are needed to ensure that states comply with IHL.

Why do cluster munitions have to take priority?

With so many competing international humanitarian imperatives, why should dealing with the effects of cluster munitions be a priority for government and civil society? For one thing, because of the far-reaching impacts that the use of these weapons has on lives and livelihoods in affected communities, as shown in this article. The mine action community already recognizes the impact that cluster munitions, other explosive remnants of war and landmines have on poverty reduction and sustainable development. But its responses cannot be fully effective until states take action to stem the possession and use of cluster munitions, as they did for anti-personnel mines in 1997.

In some countries, militaries and their governments have begun to recognize the limitations of cluster munitions, particularly as international condemnation of their use grows. Old and particularly unreliable cluster-munition types like the British BL755 have been withdrawn by Belgium, Germany, the Netherlands and Switzerland. The United Kingdom has decided to take the BL755 out of service by 2010 after acknowledging that it has an unacceptably high failure rate.²⁷ Yet, as we have shown, simply replacing obsolete weapon systems with more modern equivalents will not be enough to address the serious harm caused to civilians by the use of cluster munitions.

There are also emerging issues of further proliferation of cluster weapons and the inevitable increase in use. As Mark Hiznay's article in this issue reveals, billions of submunitions are already stockpiled by at least 73 states worldwide, and the number of known users is climbing. Some of the cheaper ground-launched systems, in particular, are likely to fall increasingly into the hands of states that brutalize their own populations or of violent non-state actors that have little or no regard for the safety of civilians. Indeed, there have been allegations of cluster-munition use by the Taliban before regime change came to Afghanistan in late 2001 and sightings (as yet unverified, to our knowledge) of

their appearance in the Congo conflict.²⁸ Further transfers of cluster weapons, particularly of old, unreliable and inaccurate types on the second-hand market or as military aid, will enlarge the prospect that this particularly nasty weapon will be used in violation of IHL with deadly consequences for civilians.

Doing nothing at the national level in terms of state practice and in multilateral forums like the CCW is an inadequate response, because the human costs of cluster munitions will continue to grow—creating discord that will undermine existing IHL. And that is something even the greatest users of cluster munitions presumably do not want to see.

Notes

1. For instance, see Landmine Action, 2005, *Explosive Remnants of War and Mines Other than Anti-personnel Mines: Global Survey 2003–2004*, at <www.landmineaction.org/resources/UKWGLM.pdf>; Landmine Action, 2003, *Explosive Remnants of War: A Global Survey*, London, at <[www.reliefweb.int/rw/lib.nsf/db900SID/JDAB-5S5BC6/\\$FILE/DID-ERW-jun03.pdf?OpenElement](http://www.reliefweb.int/rw/lib.nsf/db900SID/JDAB-5S5BC6/$FILE/DID-ERW-jun03.pdf?OpenElement)>; and Human Rights Watch, 2006, *Fatal Strikes: Israel's Indiscriminate Attacks Against Civilians in Lebanon*, vol. 18, no. 3(E), August, at <hrw.org/reports/2006/lebanon0806>.
2. For more detailed information see Rae McGrath, 2000, *Cluster Bombs: The Military Effectiveness and Impact on Civilians of Cluster Munitions*, London, Landmine Action, at <www.landmineaction.org/resources/Cluster_Bombs.pdf>.
3. Rupert Smith, 2005, *The Utility of Force: The Art of War in the Modern World*, London, Allen Lane, 2005, pp. 1–2.
4. See Colin King, 2000, *Explosive Remnants of War: Submunitions and Other Unexploded Ordnance*, ICRC, August, pp. 10–11.
5. Human Rights Watch, 2001, *Cluster Bombs in Afghanistan: A Human Rights Watch Backgrounder*, at <www.hrw.org/backgrounder/arms/cluster-bck1031.htm>.
6. International Committee of the Red Cross, 2000 (revised 2001), *Cluster Bombs and Landmines in Kosovo: Explosive Remnants of War*, Geneva, at <[www.icrc.org/Web/eng/siteeng0.nsf/htmlall/explosive-remnants-of-war-brochure-311201/\\$File/ICRC_002_0780.pdf](http://www.icrc.org/Web/eng/siteeng0.nsf/htmlall/explosive-remnants-of-war-brochure-311201/$File/ICRC_002_0780.pdf)>.
7. Ibid.
8. Between October 2001 and June 2002 submunitions in Herat, Afghanistan, killed 44% of their victims (compared with 21% deaths from landmine incidents). In Kosovo, the chance of being killed by a submunition was almost 2.5 times higher than that of being killed by a landmine. Human Rights Watch, 2002, *Fatally Flawed: Cluster Bombs and Their Use by the United States in Afghanistan*, vol. 14, no. 7G, at <hrw.org/reports/2002/us-afghanistan>, p. 11 and Landmine Action, 2002, *Explosive Remnants of War: Unexploded Ordnance and Post-conflict Communities*, London, March, at <www.landmineaction.org/resources/ERW_factsheet.pdf>, p. 7.
9. International Committee of the Red Cross, 2000 (revised 2001), see note 6.
10. See Rosy Cave, Anthea Lawson and Andrew Sheriff, 2006, *Cluster Munitions in Albania and Lao PDR: The Humanitarian and Socio-economic Impact*, Geneva, UNIDIR.
11. Kathleen Maes with additional research by Sheree Bailey, 2005, *Providing Appropriate Assistance to the Victims of Explosive Remnants of War*, background paper for the European Union-funded project, “European Action on Small Arms, Light Weapons and Explosive Remnants of War”, Geneva, UNIDIR.
12. Handicap International and Lao Youth Union, 2004, *Life After the Bomb: A Psychosocial Study of Child Survivors of UXO Accidents in Lao PDR*, Vientiane, pp. 12–14.
13. Explosive remnants of war refer to unexploded ordnance and abandoned explosive ordnance. See Article 2, Protocol on Explosive Remnants of War, Protocol V to the 1980 Convention on Certain Conventional Weapons, at <www.mineaction.org/docs/1850_.asp>.
14. Landmine Action, 2002, see note 8.
15. Cave et al, 2006, see note 10.
16. For instance, see Human Rights Watch, 2002 (see note 8) and Human Rights Watch, 2003, *Off Target: The Conduct of the War and Civilian Casualties in Iraq*, New York, at <www.hrw.org/reports/2003/usa1203>.
17. *Draft Report of the Meeting of the States Parties to the CCW*, UN document CCW/MSP/2002/CRP.1, 12 December 2002.
18. Ibid.
19. Protocol on Explosive Remnants of War, Protocol V to the 1980 Convention on Certain Conventional Weapons, UN document CCW/GGE/VI/2*, entry into force 12 November 2006, at <www.mineaction.org/docs/1850_.asp>.
20. For detailed analysis of CCW Protocol V see Louis Maresca, 2004, “A New Protocol on Explosive Remnants of War: The History and Negotiation of Protocol V to the 1980 Convention on Certain Conventional Weapons”, *International*

- Review of the Red Cross*, vol. 86, no. 856, December, pp. 815–835, at <[www.icrc.org/Web/eng/siteeng0.nsf/htmlall/692F2W/\\$File/irrc_856_Maresca.pdf](http://www.icrc.org/Web/eng/siteeng0.nsf/htmlall/692F2W/$File/irrc_856_Maresca.pdf)>.
21. See the article by Thomas Nash in this issue of *Disarmament Forum*.
 22. For analysis, see R. Cave, 2006, “Disarmament as Humanitarian Action? Comparing Negotiations on Anti-personnel Mines and Explosive Remnants of War”, in J. Borrie and V. Martin Randin (eds), *Disarmament as Humanitarian Action: From Perspective to Practice*, Geneva, UNIDIR.
 23. For further explanation see Robin Coupland, 2005, “Modelling Armed Violence: A Tool for Humanitarian Dialogue in Disarmament and Arms Control”, in J. Borrie and V. Martin Randin (eds), *Alternative Approaches in Multilateral Decision Making: Disarmament as Humanitarian Action*, Geneva, UNIDIR.
 24. Human Rights Watch, *World Report 2004: Human Rights and Armed Conflict*, New York, chapter entitled “Cluster Munitions: Toward a Global Solution”, at <hrw.org/wr2k4/download.htm>.
 25. Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), Article 51 (4).
 26. Human Rights Watch, *Memorandum to CCW Delegates – Cluster Munitions and International Humanitarian Law: The Need for Better Compliance and Stronger Rules*, July 2004, at <www.hrw.org/backgrounder/arms/clusters0704/clusters0704.pdf>, pp. 2–3.
 27. Human Rights Watch, 2006, *Global Overview of Cluster Munition Use, Production, Stockpiling and Transfer*, March, at <hrw.org/arms/pdfs/munitionChart.pdf>.
 28. According to Human Rights Watch, the Taliban, as well as the Northern Alliance, used surface-delivered cluster munitions, fired from BM21 122mm multiple rocket launchers in Afghanistan. Human Rights Watch, 2001, see note 5.