Strategic Insight

Explosive Remnants of War: The Way Forward

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NOTE: This is a continuation from PART 1 Explosive Remnants of War: The Problem

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Introduction

"International Humanitarian Law (IHL) is not meant to legitimize warfare, or to imply that any military action not specifically prohibited under the existing law is legitimate. Rather, International Humanitarian Law should be seen as the legal expression of an effort to reduce as far as possible the suffering inflicted in armed conflicts."[1]

The issue of Explosive Remnants of War (ERW) has been discussed for several years and discussions have included the question of whether existing legal regimes are sufficient to deal with this problem. Following the negotiations for a new legally binding instrument on ERW within the CCW,[2] some delegations have argued that present principles of IHL are sufficient and need not to be further developed in the ERW context while others claim that the law does need further developments.[3]

However the discussions about the adequacy of IHL end, as long as there is no political will to comprehensively deal with the ERW issue, there will be no future solution that reduces the imminent threat caused by ERW on the ground.

General Legal Context

It is not possible to refer to a single legal regime applicable to ERW under existing international law.[4] However, International Humanitarian Law—the body of international law which governs the conduct of armed conflict—lays down general norms which have to be taken into consideration when exploring legal complexities of the ERW problem.

IHL adheres to the principle that the parties in an armed conflict have not the unlimited right to choose the means and methods of warfare. In particular, it is prohibited to employ means or methods which are intended or are of a nature to cause superfluous injury or unnecessary suffering.[5] Therefore every High Contracting Party to Additional Protocol I to the 1949 Geneva Conventions has the obligation to determine whether these means and methods are compatible with the rules of international law.[6]

One of the main principles regarding the legal aspects of ERW is the prohibition of indiscriminate attacks,[7] which will be discussed below.

As outlined in Part I of this Strategic Insight, the ERW problem is mainly caused by certain munitions that failed to function. To comprehensively deal with legal issues, it is necessary to focus on the munitions concerned before they become ERW. This raises questions concerning the design and the use of these ordnance.

Design

During the negotiations in Geneva, several States Parties to the CCW proposed to introduce regulations which would make munitions more reliable.[8] The proposed technically improved ammunition is designed in a way that it detonates on impact or automatically explodes shortly thereafter, thus reducing substantially the ERW problem. The enhanced reliability of munitions would be desirable from a military as well as a humanitarian point of view.[9]

Although Article 36 of Additional Protocol I obliges states to determine whether the development of new weapons corresponds with the rules of international law, states are not obliged to replace their existing stocks with new and more reliable weapons.[10]

Consequently, it would be of great practical utility to have a new regulation which would cover preventive technical measures. This would lead to a direct reduction of the threat caused by these types of ammunition.

Use

Because of the imprecision of munitions that cause the ERW problem, (i.e. effects on civilian populations rather than objectives), some stated that the use of such weapons may be of an indiscriminate nature making them illegal.[11]

The basic principles regarding targeting are the following[12] : Civilians and civilian objects are not lawful targets; indiscriminate attacks are prohibited; and whenever a military objective is attacked, it must comply with the principle of proportionality.[13]

There is no doubt that any weapon could be used in a manner contrary to the above mentioned principles, irrespective of ERW reflections. However, the question is whether the risk of certain ammunition malfunctioning and thus posing a direct threat to the civil population could render the attack indiscriminate or disproportionate.

Article 51, para 4 of Protocol I to the 1949 Geneva Conventions prohibits attacks which are of an indiscriminate manner. Indiscriminate attacks are:

- those which are not directed at a specific military objective
- those which employ a method or means of combat which cannot be directed at a specific military objective
- those which employ a method or means of combat which cannot be limited as required by this Protocol

The fact that munitions fail to function and therefore cause a threat to the civilian population (with the prerequisite that the attack was targeted against a military objective— otherwise the attack would be in violation of Article 51 anyway, without taking into account of the effects of ERW) does not mean that the use of these munitions is indiscriminate and therefore in violation of Article 51 para 4 of the Protocol I to the 1949 Geneva Conventions. No rule in IHL requires a limitation on the effect of a weapon as a mean for protecting civilian populations.[14]

What is required is that the expected casualties of the attack should not be in a disproportionate balance to the military advantage.[15] What has to be considered is whether an attack with munitions that do not function as intended endanger the civil population, and thus could be seen as a violation of the principle of proportionality.[16] However, long-term post-conflict threats like the one caused by ERW are difficult to assess during the attack. The proportionality of an attack has to be taken into account at the time of the attack on the basis of reliable information available to the military commander. How many ordnance may fail to function cannot be a consideration for a commander in a time of war, and furthermore cannot be definitively answered by the commander. What has to be considered is the possibility of alternatives to those weapons which have a high risk of causing ERW . However, as long as there are no real alternatives to the weapons a military commander has, the use of these types of munitions seems not to violate current IHL rules. This question has to be elaborated separately in more detail, and would go beyond the scope of this paper .

A New ERW Legally Binding Instrument

At the CCW Review Conference in December 2001, States Parties decided to elaborate on the question of ERW with the aim of possibly creating a new legally binding instrument.[19] At the last Meeting of States Parties in December 2002, it was decided to continue the work on ERW with a negotiating mandate that covers mainly post-conflict, but not preventive measures.[20] Specifically, questions on the responsibility for clearance, the provision of information to facilitate clearance and risk education, warnings to civilian populations, assistance and cooperation as well as a framework for regular consultations of High Contracting Parties will be discussed. The implementation of the full range of the proposed measures could lead to an important new regulation on ERW. However, these measures do not directly reduce the number of ERW, neither during a conflict and nor during the post-conflict period. As long as clearance organizations won't be in the field, a possible new instrument based on the above mentioned measures will not have any direct impact on the ground. In addition, it is more highly doubtful that all proposed measures will be in the final instrument.[21] The first round of negotiations in Geneva has already shown that some States do not see the necessity of a legally binding instrument.[22]

Thus, one has to raise the question of whether the agreed upon approach among States Parties to the CCW is a promising one. There are three main elements which have to be taken into account when trying to reduce the danger caused by ERW within a new protocol of the CCW:

- Spirit of the Convention
- How to effectively reduce the amount of ERW
- Supporting measures

Spirit of the Convention

The CCW is a Convention which prohibits or restricts the use of certain conventional weapons, which may be deemed to be excessively injurious or to have indiscriminate effects.[23] As a weapons convention, it deals directly with specific, individual weapons themselves. For example, Protocol II, the Mine Protocol, which was amended in 1996, prohibits the use of anti-personnel mines which are not detectable[24] and restricts the use of remotely-delivered mines.[25] The Protocol on Blinding Laser Weapons prohibits the use of laser weapons specifically designed to cause permanent blindness to unenhanced vision.[26] The fact that this convention has a direct impact on the battlefield directly reduces the danger caused by certain types of weapons and makes the CCW essential for the protection of soldiers and civilians. Any renunciation of this principle would lead to a lack of efficiency and thus, to a lack of credibility.

It is of great importance that the negotiators keep in mind that it took more than a decade to build confidence in this convention. Abandoning this promising and effective track would be

irresponsible and could directly undermine the well-being of both soldiers and civilians in and after a conflict.

How to Effectively Reduce the Amount of ERW

As outlined above, today's ERW problem is primarily a result of mass produced and massively used ammunition, such as sub-munitions from cluster bombs, artillery shells or mortars equipped with a simple fusing system. The malfunction of these explosives causes the ERW threat. By focusing on the reliability[27]—equipping the munitions concerned with a back-up feature—a great number of duds could be substantially and directly reduced before they become ERW. That would lead to a direct positive impact on the ground and, in addition, would also increase military value.[28] A great number of ERW is desirable from neither a humanitarian nor a military point of view.

During the last three years several States presented discussion papers to the CCW Governmental Group of Experts on how to effectively reduce the great number of duds.[29] Figures from the field have shown that in some cases, the calculated number of duds raises up to almost 30%.[30] Specifically, cluster bomb ammunitions have raised great concerns.

The main reasons why some munitions do not function as intended are as follows[31]:

- use of a simple fusing system
- no back-up system
- low quality products
- unclear conditions of use
- characteristics of terrain of impact

To balance this negative result, munitions concerned should be equipped with a technically improved fusing system.[32] Tests by several armed forces where modern types of munitions have been used in combat or in test sites show that a substantial increase in reliability can be achieved by equipping munitions with a back-up system. The Swiss armed forces use cluster ammunition with a self-destruction mechanism that reduces the number of duds to fewer than 2%.[33] The U.S. Armed Services are directed to design and procure future sub-munitions with a 99% or higher "functioning rate"[34] by 2005.[35]

These figures show that modern technology is available to immediately reduce the great amount of unexploded ordnance, thus effectively reducing the direct humanitarian danger. The CCW Meeting of States Parties has decided to focus only on post-conflict measures which would not have a direct effect right after the conflict, and thus could render the post-conflict efforts inefficient.[36]

By implementing preventive technical measures to a new instrument, the post-conflict threat caused by unexploded munitions could be extensively reduced. It would simplify any post-conflict effort especially in regard of the protection of peace-keeping operations and civilian populations.

Some delegations raised concerns about the costs of introducing new fusing systems. In fact, the production of modern types of cluster munitions with a back-up system increases the costs per shell by 10 to 15%.[37] However, a simplistic cost calculation barely based on the financial implications for buying a new ammunition system can lead to a distorted picture. Several other factors, such as the additional military value, reduction of costs for clearance as well as the decrease of negative social and economic implications need to be taken into account so that an overall picture of all additional costs and savings can be clearly and objectively estimated.[38]

Supporting Measures

Any restrictions on the use of certain types of weapons need to have a framework within which important supporting measures are regulated. For example, the amended Protocol II to the CCW calls for clear restrictions on the use of mines and, in addition, covers additional elements for a sustainable post-conflict solution to the mine problem.[39]

There are several questions which have to be raised regarding supporting measures. First there is the question of responsibility for clearance after the war (is it the responsibility of the country which used the weapons, the country which has jurisdiction over the affected landscape, or within the responsibility of the aggressor?). Second, there are questions regarding information exchange (what information is needed to successfully clear ERW affected areas, and is such information confidential?). Third, regarding a verification mechanism, what kind of mechanism would be appropriate for technical as well as post-conflict measures?

The assessment of which supporting measures are necessary and relevant for a comprehensive solution clearly requires a careful examination. However, to achieve a comprehensive and practical solution with a long-lasting positive impact on the ground, there has to be a package of preventive technical measures directly affecting the weapons concerned combined with post-conflict remedial regulations.

Conclusions

After almost three years of discussions and negotiations, there is still a lack of a common understanding on how to deal with the ERW problem. Although it was decided to negotiate a legally binding ERW instrument on post-conflict remedial measures, first reactions on the coordinator's paper[40] have shown that on the one hand, the framework paper is possibly too unwieldy and could take years to negotiate and, on the other hand, the proposed way forward is not comprehensive enough to deal directly with the problem, (meaning that the approach—as pointed out above—is incomplete). In addition, although it was agreed to negotiate a legally binding instrument, some delegations do not give the impression that they are willing to be bound on that agreement.

Figures from the field show that ERW pose an imminent threat. There is not much time for negotiators to agree to a new instrument to effectively reduce that threat. However, a partial solution—by implementing only post-conflict remedial measures—cannot be a good solution because of the already existing necessity to reopen negotiations. It would result in an unnecessary lack of confidence in the new instrument.

So far, what has happened in Geneva on the issue of ERW are negotiations for negotiation's sake, without the clear political will to solve the problem caused by ERW. Technical solutions to improve weapons' reliability are available and would have a direct positive impact in the field—in contrast to post-conflict measures. They would be in the interest of humanitarian organizations as well as the military. By following the approach proposed by the coordinator, the CCW community would not only jeopardize any success of a new ERW instrument in the field but it would also risk being confronted with demands by the public and non-governmental organizations (such as a ban on certain types of munitions), that militaries cannot accept.

There is still time to substantially complement the negotiating mandate in the outlined way. However, as long as there is no political will to comprehensively and honestly deal with the ERW problem, a realistic and useful field solution will not be achievable.

For more topical analysis from the CCC, see our Strategic Insights section.

For related links, see our WMD Resources

References

1. See Eric Prokosch, Cluster Weapons, Papers in the Theory and Practice of Human Rights, Number 15, University of Essex 1995.
2. See Centre for Contemporary Conflicts, SI Paper, the 1980 Convention on Certain Conventional Weapons by Roman Hunger, March 2003.
3. See UN Doc CCW/GGE/II/WP.22.
4. In comparison, the problem of landmines is an important ERW challenge, but one which has been excluded from the current ERW discussions (see Explosive Remnants of War: The Problem explained, by Roman Hunger), and has been regulated in different international treaties, e.g. Prot II/amended Prot. II of the CCW, Anti-personnel Mine Ban Treaty.
5. Article 35 of the Additional Protocol I to the 1949 Geneva Conventions. For more details, see Dieter Fleck, the Handbook of Humanitarian Law in Armed Conflicts, page 111 et sqq, New York 1995.
6. See Article 36 of the Additional Protocol I to the 1949 Geneva Conventions.
7. See Article 51, para 4 and 5 of the Additional Protocol I to the 1949 Geneva Conventions.
8. See Discussion Paper presented by Switzerland on technical improvements and other measures for relevant types of munitions, including sub-munitions, which could reduce the risk of such munitions becoming ERW, May 2002, UN Doc CCW/GGE/I/WP.4; Working Paper presented by France on technical improvements on sub-munitions, July 2002, UN Doc CCW/GGE/II/WP.6.
9. See Chapter one, para "the military challenge".
10. Greenwood points out that "even if a new generation of munitions has been or will be devised which is more efficient and thus less likely to create ERW …, that fact does not oblige States to replace their existing stocks of munitions with new variety", see Christopher Greenwood, Legal issues regarding Explosive Remnants of War, UN Doc CCW/GGE/I/WP.10, May 2002.
11. Among others, see Virgil Wiebe, Footprints of death: Cluster bombs as indiscriminate weapons under international humanitarian law, Michigan Journal of International Law, Vol. 22, No. 1, Fall 2000.
12. For more details, see Dieter Fleck, The Handbook of Humanitarian Law in Armed Conflicts, para 441 et sqq., Oxford University Press, New York 1995.
13. "The principle that seeks to limit damage caused by military operations by requiring that the effect of the means and methods of warfare used must not be disproportionate to the military advantage sought.", see Pietro Verri, Dictionary of the International Law of Armed Conflict, ICRC Publications, Geneva 1992.
14. See Greenwood, Legal issues regarding Explosive Remnants of War, UN Doc CCW/GGE/I/WP.10, May 2002.
15. See Article 51, para 5 of the Additional Protocol I to the 1949 Geneva Conventions.
16. Article 51, para 5 (b) of the Additional Protocol I to the 1949 Geneva Conventions contains the general principle of proportionality: " … an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.", for more details, see Dieter Fleck, The Handbook of Humanitarian Law in Armed Conflicts, para 456, Oxford University Press, New York 1995.
17. "If the alternative to an attack by means of cluster munitions is the heavy use of unitary weapons, the damage to the civilian infrastructure and the overall harm to the civilian population might be well increased.", see Christopher Greenwood, Legal issues regarding Explosive Remnants of War, UN Doc CCW/GGE/I/WP.10, May 2002.
18. For an exemplification, see A. P. V. Rogers, Law on the Battlefield, p 15, Manchester 1996.
19. See UN Doc CCW/CONF.II/MC.I/CRP.1/Rev.1.
20. See UN Doc CCW/MSP/2002/2.

21. "…our impression is that the framework paper is too unwieldy. It is too complex and formal.", see U.S. Delegation Opening Statement by Edward Cummings to the March 2003 Meeting of the CCW Group of Governmental Experts.
22. "One reason we have supported an instrument of political character is to avoid such complexity and formality and the attendant costs in terms of the time it takes to conclude formal agreements and bring them into effect. … For example, we have a comprehensive objection to all language that implies a legal character to the instrument.", see U.S. Delegation Opening Statement by Edward Cummings to the March 2003 Meeting of the CCW Group of Governmental Experts.
23. See Centre for Contemporary Conflicts, SI Paper, The Convention on Certain Conventional Weapons by Roman Hunger, March 2003.
24. Article 4 of amended Protocol II to the CCW.
25. Article 6 of amended Protocol II to the CCW.
26. Article 1 of Protocol IV to the CCW.
27. E.g. mechanisms for self-destruction, for self-deactivation or for self-neutralization. See Discussion Paper presented by Switzerland on technical improvements and other measures for relevant types of munitions, including sub-munitions, which could reduce the risk of such munitions becoming ERW, May 2002, UN Doc CCW/GGE/I/WP.4.
28. See Chapter one, para "the military challenge".
29. See among others, Discussion Paper presented by Switzerland on technical improvements and other measures for relevant types of munitions, including sub-munitions, which could reduce the risk of such munitions becoming ERW, May 2002, UN Doc CCW/GGE/I/WP.4; Working Paper presented by France on technical improvements on sub-munitions, July 2002, UN Doc CCW/GGE/II/WP.6; Presentation by the US Delegation to the CCW Group of Governmental Experts, US sub-munitions reliability policy, December 2002.
30. "According to NATO's own estimate (for Kosovo) of a 10% failure rate, … . Others, however, estimate failure rates from 3% to 26% per canister, with the average failure rate falling between 10% and 15%." See ICRC, International Review of the Red Cross, No. 841, p. 198, by P. Herby and A. R. Nuiten, Geneva 2001; other sources indicate a failure rate of at least 10%, see Rae McGrath, Cluster Bombs-the military effectiveness and impact on civilians of cluster munitions, London 2002.
31. For more details, see UN Doc CCW/GGE/I/WP.4; Discussion Paper presented by Switzerland, May 2002.
32. E.g. mechanisms for self-destruction, for self-deactivation or for self-neutralization.
33. These systems are equipped with a self-destruction mechanism. It is based on a pyrotechnical element, which functions independently from the main function of the fuse with a time delay of approx. 15 seconds. Briefing Paper by the Swiss Delegation to the Chairman of the ERW Governmental Group of Experts, February 14, 2002.
34. From a US presentation, "functioning rate" means that the sub-munitions will function (i.e. explode as designed), when deployed. Self-destruct mechanism will be included to increase functioning rate of 99% or higher. See Presentation by the US Delegation to the CCW Group of Governmental Experts, US sub-munitions reliability policy, December 2002.
35. See Presentation by the US Delegation to the CCW Group of Governmental Experts, US sub-munitions reliability policy, December 2002.
36. Inefficient regarding time needed for clearance, regarding cost implications for clearance, reconstruction efforts and the return of refugees, regarding the reduction of the direct threat caused by ERW.
37. Briefing Paper by the Swiss Delegation to the Chairman of the ERW Governmental Group of Experts, February 14, 2002.
38. For more details, see Statement by Roman Hunger, legal adviser, Delegation of Switzerland, to the ERW Military Expert Group, 4 December 2002.
39. E.g. article 8, Restrictions on Transfer; article 10, Removal of minefields; article 11, technological cooperation and assistance; article 13, Consultations of High Contracting Parties.
40. See ERW Framework Paper from the CCW Coordinator on Explosive Remnants of War to the States Parties to the CCW, Version 11 February 2003.