New publication

Unacceptable Harm: A History of How the Treaty to Ban Cluster Munitions Was Won
John Borrie (UNIDIR, 2009, 532 pages, sales number GV.E.09.0.8, ISBN 978-92-9045-196-9, English, US$ 65 plus shipping and handling)

This is an excerpt from John Borrie's recent book, *Unacceptable Harm*, which explains how the Convention on Cluster Munitions was achieved through the "Oslo process", a partnership of governments, international organizations and civil society. It examines why it took so long for the world to act, why it eventually did, and what lessons banning cluster munitions might hold for future efforts on a pressing challenge of our time: protecting civilians from the effects of explosive weapons.

Some lessons learned in Southern Lebanon for the Convention on Cluster Munitions

I find myself standing in a wheat field designated as zone CBU-614 near the village of Safeed Al Battikh, which is in Area 3—one of the eight clearance zones Southern Lebanon is carved into. Two Norwegian People's Aid battle area clearance (BAC) teams are carrying out subsurface survey and clearance here. Two feet away from me an unexploded M-42 submunition peeks out from the rocky soil. It is armed, and therefore dangerous, and (naturally) I feel slightly nervous about that. Looking carefully at it, Kerei Ruru, Operations Chief for the Southern Lebanon UN Mine Action Coordination Centre (MACC), along with the leader of the BAC team clearing this zone, are keen to point out the features of the tiny M-42's arming mechanism. I am surprised by how small the submunition is, and how closely its dull, dusty surface blends in with the ground: I could easily have missed seeing it without the wooden stakes joined with red and white plastic hazard tape the BAC team have erected around it. Seen close up, the partially uncovered M-42's arming mechanism looks a bit like the top of a miniature spray-paint can. Its nylon ribbon is invisible, either still buried or rotted away.

Although it is mid-October and this morning is overcast, the temperature here is at least 20ºC. In summer the heat climbs into the high 30s and the sun bakes the ground until it sets like concrete and the fields shimmer. Even now in autumn the ground is still firm, and the myriad rocks not only radiate heat back from the ground, they can interfere with the hand-held metal detectors the BAC searchers use to locate submunitions and other unexploded ordnance. Norwegian People's Aid BAC personnel nearby in bulky clearance gear—local Lebanese men—smile wanly, and wave to us as we make our way into the field. Perversely, because

of its large scale, battle area clearance of submunitions is a big employer of local people, and a relatively well-paid and thus sought-after job. But it is hard work, and I can barely imagine what toiling in the fields in mid-summer wearing a protective vest (which resembles a thick flak jacket) and perspex faceplate must be like.

As marginal as this land seems for agriculture to me, the submunition we are examining was found by a local farmer ploughing his field to plant wheat. For economic reasons farming must go on, even though it is a known Israeli cluster strike zone and not yet free of unexploded bomblets. Facing roughly south, the hillside field was on the receiving end of a cluster munition strike from Israeli 155mm artillery during the 2006 conflict—overlapping elliptical patterns of submunitions falling roughly longitudinally upon it. The action of rain and plough submerged this submunition in the ground and now ploughing has brought it closer to the surface.

The presence of this submunition in a field that, we are told, has been ploughed a dozen times or more since the conflict underlines that these are not de facto anti-personnel mines, as they have sometimes been described.[1] An anti-personnel mine is a simple device designed for a purpose: to lie in wait until something or someone comes into contact with it, at which point it explodes. In other words, it is designed for a purpose and, although utterly indiscriminate, anti-personnel mines perform their task reliably. Rather, this submunition is here because it has *failed* to function as designed: it signally lacks a mine's predictability or reliability. Leaning over the hazard tape and peering at the M-42, Kerei points out the submunition's stab detonator mechanism: this dud might be ploughed over repeatedly without exploding, each time being disturbed and probably moved slightly. At some point, though, a plough blade will hit the submunition at an angle that will activate the detonator, or someone will inadvertently step on it with the same effect, and the submunition may finally explode. But the submunition was not designed with a view to blowing off a person's limbs like an anti-personnel mine; it is a weapon designed to punch through several centimetres of steel plate to kill an armoured vehicle's occupants. Farmers driving tractors, shepherds on foot and livestock do not stand a chance.

Of the 261 civilian casualties recorded from unexploded ordnance in Southern Lebanon from the mid-August 2006 ceasefire until the end of September 2008, 215 were due to submunitions. Twenty of these people were killed, and the rest injured, many grievously. Casualty figures fail to tell the full story, of course, because they do not take into account the other socio-economic costs of land denial, and loss of income and opportunity brought about by submunition contamination on such a massive scale. A 2008 UNDP-funded report produced by the British non-governmental organization (NGO) Landmine Action looked at the cost of lost agricultural production in Southern Lebanon specifically caused by cluster munition contamination, the cost of the response through internationally assisted clearance and risk reduction operations and the economic cost of deaths and injuries directly resulting from it. The report came up with a cost estimate of between US$ 153.8 million and 233.2 million:

> Considering only the costs of lost agricultural production, and estimating based on the size of average land holdings in affected areas, post-conflict cluster

> munition contamination would have cost some 3,105 individual landowners an average of around US$ 8,000 each—this in a country where the 2006 per capita GDP was US$ 5,300.[2]

There were costs for the international community too. While noting that without it the socio-economic costs of cluster munition contamination would have been much greater, Landmine Action's report estimated that clearance and risk reduction activities in Southern Lebanon cost humanitarian donors around US$ 120 million in the period between the ceasefire and May 2008: substantially higher than the US$ 30 million Landmine Action estimated as the cost of the 1999–2005 response to NATO's use of cluster munitions in Kosovo in 1999.[3] And there have been inevitable accidents involving clearance personnel—inevitable because, despite strict rules, training, and regular quality assurance by the MACC of all clearance teams working under their authority, conditions are difficult, human beings make errors and, most of all, submunitions are highly dangerous and unpredictable. Fourteen clearance personnel were killed and 41 were injured in Southern Lebanon between mid-August 2006 and the end of September 2008.[4] Experience in Southern Lebanon supports the view that submunitions are particularly risky for humanitarian clearance.

Southern Lebanon's lessons

As I interviewed MACC staff, personnel from various demining organizations working in Southern Lebanon and talked with the Lebanese themselves, it struck me that the consequences of the cluster munition contamination resulting from the Southern Lebanon conflict hold a number of lessons of particular importance for the Convention on Cluster Munitions' successful implementation.

The first lesson is that acquisition of strike data as soon as possible after a conflict such as the number, types and locations of munitions fired makes a big difference in reducing the hazards to returning civilians. MACC staff spent a lot of time in the 2006 conflict's aftermath just trying to get an overall sense of the extent and geographical focus of the contamination. While they were familiar with older submunitions such as the BLU-63s they had been clearing for years (and which were used again in 2006 by Israeli forces, despite the weapon's age, many—again—failing to function), a number of the submunitions found by explosive ordnance disposal personnel took some time to identify.[5] Many submunitions such as the M-42, M-77 and M-85 look much like another, and are often damaged or partially obscured in some way when explosive ordnance disposal personnel first encounter them. Experts were puzzled for some time by Hizbullah's Chinese-made MZD-2 bomblet—itself a copy of the Yugoslav KB-1, in turn an effort to reproduce Western submunitions.[6] (Many MZD-2s were found in contaminated zones intermingled with unexploded Israeli submunitions, as in some cases Israeli bombardment had destroyed Hizbullah weapons caches or rocket firing platforms and, in the ensuing explosions, scattered the munitions.)

Not knowing *where* to focus limited survey and clearance resources was the biggest problem, however, for the MACC and the Lebanese Army as the hours and days after ceasefire ticked away and large numbers of civilians returned to salvage their homes and livelihoods and tend the harvest. Strike data from the Israel Defence Forces (IDF) would have helped immensely in reducing civilian casualties from unexploded ordnance (UXO), which spiked in the day following the ceasefire, and would slow to a steady, bloody trickle lasting long afterwards. Indeed, Protocol V to the Convention on Certain Conventional Weapons (CCW) on explosive remnants of war contains provisions encouraging the timely exchange of this kind of information precisely because it saves lives.[7] Despite repeated pleas by states in the UN Security Council and at the bilateral level, Israel did not provide information about where it targeted its cluster munitions, or how many and what types it used until more than two years after the end of the 2006 conflict.[8] When I visited Southern Lebanon in late 2008, MACC staff showed me the sole fruit of their requests to the IDF, stuck to the wall of their operations briefing room in Tyre: a single hand-sketched map in Hebrew on graph paper with firing angles identifiable but little else. As a result, the MACC and other authorities had to build a picture of contamination from scratch from August 2006, and civilians and clearance teams in Southern Lebanon kept encountering new and unexpected areas of contamination. In mid-May 2009, Israel belatedly handed over some technical data and related maps to the UN.[9]

The second lesson is that a surge in capacity to survey and clear submunitions and to provide warnings to civilians post-conflict makes a major difference in reducing immediate humanitarian harm. This is particularly crucial where use of cluster munitions is concerned as failed submunitions tend to be generated in large numbers, and because they are small it means they are hard for civilians to see (and so avoid) and get caught in trees, shrubs, house roofs and the like. Nevertheless, the harm to civilians caused in Southern Lebanon by massive quantities of unexploded Israeli submunitions fired in the final days of the war was less than it might have been: the area's pre-existing mine and UXO problem meant that expertise and coordination mechanisms such as the MACC were already in place and swung into action very quickly. Efforts by the United Nations and the broader humanitarian community to raise resources to begin post-conflict clearance activities in Southern Lebanon had begun during the conflict itself. Of course, during the fighting, nobody in the UN had any idea of the extent of the submunition contamination that would be caused in the final three days of the conflict, and the amount of resources needed had to be repeatedly revised upwards as the picture became clearer. When the conflict ended, there were only a few international demining teams and explosive ordnance disposal resources in-country,[10] along with the Lebanese Army's capacity—all of which saved civilian lives by intervening in contaminated areas. But at least there was a capacity there, which could be expanded. The lesson is plain: more teams on the ground quickly means more civilians are saved. And where coordination capacities to handle survey, clearance and other tasks to reduce the hazards of cluster munitions do not exist post-conflict, they must be established with haste, and with the cooperation of national and local authorities in the country they operate in.

The third lesson is that submunition clearance is not the same as mine clearance in terms of its methodology. This might seem obvious, but it is not always so in the mine action sector, which is well established in terms of its standards and methodologies and has mature "standard operating procedures" (SOPs)—for clearing mines, that is, not submunitions. The aftermath of the 1999 Kosovo NATO air campaign was a wake-up call in this respect, and served as a laboratory for a number of people who would later be significant in terms of tackling the problems caused by submunitions post-conflict in Southern Lebanon. These included some in the MACC, who understood the differences in methodology between mines and submunitions (since they, in effect, developed some of it as they went along) and what needed to be done. So did some of the NGO demining organizations such as Norwegian People's Aid.[11] But in other areas of the mine action community, awareness of differing methodologies lagged (and still lags) behind, for instance among some newly arriving field staff (the majority of whom have military backgrounds trained in mine clearance) but also among some of those developing related policy at the international level, and among funders. Related to this is the controversy around area reduction. Pioneered in the context of mine clearance, the idea of area reduction was initially bitterly resisted by many in the mine action community as potentially unsafe because it released land back to civilian use after determining through cross-checked information, including interviews with locals, that some areas were free of mines, rather than through painstaking and time-consuming manual clearance. (There was concern that safeguards on the accuracy of cross-checked information might be insufficient to ensure the safety of civilians.)

The fourth lesson of Southern Lebanon is that it shows that area reduction is crucial to reducing the risks of submunitions, since not every square inch of ground can be turned over in the search for them. Kerei Ruru, the MACC's Operations Chief who showed me around submunition-contaminated areas of Southern Lebanon, knows this better than most, as he went from site to site for several years overseeing the BAC teams at work there. He confirmed: "area reduction can save a lot of time and money. But it has to be based on solid data, and with technical survey assets in order to check".[12] To be effective in releasing land back to civilian use, both clearance and area reduction activities have to be understood by the locals, and have to engender confidence. "You've got to have a system for post-clearance review", Ruru said.

> It's important to go back to the communities you've worked in a year after clearance to ask the local people if they're actually using the land. If they are, then what are they using it for? If they're not using the land, then why not? Is it because they lack the confidence that the land is safe? Or is it for some other reason like lacking the money to replant the trees in their orchards?[13]

The fifth lesson of Southern Lebanon was one heeded in the Oslo process. For years, discussions both in the CCW and at the national level in many countries had assumed that technical fixes were possible to take care of the post-conflict hazards that cluster munitions cause. Specifically, the technical "improvement" most often mentioned was reducing the

failure rate of submunitions so that fewer would be left on the ground in a dangerous state. Self-destruct mechanisms were seen by many governments as a key means of achieving this. Yet the lesson demonstrated in Southern Lebanon in 2006 was that self-destruct clearly did not work to a satisfactory standard. Large numbers of dud Israeli M-85 bomblets with self-destruct—unexploded submunitions that should not have existed—were being found in Southern Lebanon, and were just as dangerous to dispose of as other unexploded submunitions.[14] And the massive quantities fired by the IDF in the war's closing stages had shown the central weakness of any reliability improvement argument—that even low failure rates could still create significant numbers of hazardous duds.

Self-destruct and other technologies in submunitions could, at best, be only part of the solution in reducing the risks to civilians of cluster munitions. The same was true of the other line of discussion in the CCW—to improve the implementation of existing international humanitarian law rules rather than creating new, weapon-specific law for cluster munitions. International humanitarian law prohibits indiscriminate attacks; that is, "those which are not directed at a specific military objective" or "which employ a method or means of combat which cannot be directed at a specific military objective".[15] Yet, egregiously, Hizbullah launched rockets at Israel throughout the conflict (at least a few containing submunitions)[16] too inaccurate to distinguish between military and civilian targets—and there seems precious little evidence Hizbullah made any attempt to observe such a distinction.[17] Combined with the high risk that cluster munitions can pose to civilians, the 2006 conflict underlined the need for concrete international rules to keep such weapons out of the hands of those inclined to use weapons without regard for humanitarian law.

Israel's use of cluster munitions also underlined the problems associated with the weapon. Israeli warplanes bombed targets in Lebanon during the war with cluster munitions containing very old BLU-63s with ensuing high failures—casings from some of the US-manufactured CBU-58 containers showed their warranties expired in the mid-1970s. And yet there was no international rule to prevent Israel from using ancient stocks of such unreliable munitions again. Then there was the IDF's firing of massive quantities of ground-launched cluster munitions in the final days of the conflict, perhaps intended to interdict Hizbullah forces pulling back. The dispersal of massive numbers of submunitions, combined with their higher operational failure rate than other kinds of explosive munitions like unitary warhead artillery projectiles, mortar rounds and the like, left large numbers of deadly unexploded duds on the ground or hanging from vegetation.

Cluster munition use by Hizbullah and Israel in 2006 underlined that debates on the technical characteristics of weapons and their supposed effects can be a very long way from the effects as seen on the ground. Outrage internationally about cluster munition use in Southern Lebanon would help to commence the Oslo process. The lesson of the Southern Lebanon conflict that alleged technical "fixes" like self-destruct mechanisms were not sufficient in themselves to address the humanitarian problems cluster munitions create took longer to sink in. But in

that respect, the post-conflict lessons gathered in Lebanon concerning the M-85 submunition would play a direct role within the Oslo initiative. Nor should the lessons of that conflict be forgotten in implementing the CCM.

Notes

1. For instance, see *Report of the Commission of Inquiry on Lebanon pursuant to Human Rights Council resolution S-2/1,* UN document A/HRC/3/2, 23 November 2006.
2. Greg Crowther, 2008, *Counting the Cost: The Economic Impact of Cluster Munition Contamination in Lebanon,* Landmine Action, p. 3. The Landmine Action report does not include direct costs borne by the Lebanese government in funding Lebanese Armed Forces clearance.
3. Ibid.
4. Figure taken from MACC, "September 2008 Report of the Mine Action Co-ordination Centre, South Lebanon", 6 October 2008, p. 3, table "Demining/CBU Accidents". Although these figures also apply to incidents in the course of clearance of mines (which were not used, as far as the MACC is aware, in the 2006 conflict), the vast majority are from incidents involving submunitions.
5. Eventually, the MACC was to identify at least 10 basic types of cluster munition in Southern Lebanon: the M-42/M-46, M-77, M-85, MZD-2, BLU-63B, BLU-61A, M-43, BLU-18, BLU-26B and Mk-118, not counting various carrier projectiles. See MACC, *War 2006: Threat Factsheet,* ver. 2, 10 April 2008.
6. Author's interview with Colin King, 4 September 2008, and discussions with MACC SL staff, 5–12 October 2008.
7. See Article 4 of CCW Protocol V on explosive remnants of war. Although Israel is not yet a party to Protocol V, Amended Protocol II on mines, booby-traps and other devices to which it is party recognizes the importance of providing information on mined areas after the cessation of hostilities; see Article 9(2).
8. Dalila Mahdawi, "Israel to Hand over Cluster Bomb Maps—Israeli Media", *The Daily Star* (Beirut), 6 March 2009.
9. UN News Service, "Israel Hands over Cluster Bomb Maps to UN Force in Lebanon", 13 May 2009.
10. Primarily those of the British demining NGO Mines Advisory Group, and those of the UN Interim Force in Lebanon (UNIFIL).
11. Author's interview with Knut Furunes and Per Nergaard, 8 October 2008.
12. Author's discussion with Kerei Ruru, 11 October 2008.
13. Idem.
14. According to the MACC, M-85 submunitions with self-destruct cannot be rendered safe; see MACC, op. cit., p. 6.
15. See for instance Article 51(4) of the 1977 Additional Protocol I to the 1949 Geneva Conventions, which is widely considered to reflect customary law in the matter.
16. These were 122mm Type 81 rockets containing 35 MZD-2 submunitions. The number launched is unknown. See MACC, *Threat Factsheet,* op. cit., p. 9. More information is available at <www.globalsecurity.org/military/world/para/hizballah-rockets.htm>.
17. See Human Rights Watch, 2007, *Civilians Under Assault: Hezbollah's Rocket Attacks on Israel in the 2006 War,* p. 3.