Anti-Personnel Landmines: Balancing Military Utility and the Humanitarian Cost

Christopher Harland

This paper reviews in brief the history of the use of anti-personnel (AP) landmines, the run-up to the adoption of a treaty banning their use, and issues related to the military utility and the humanitarian cost of the weapon. Finally, it also develops some of the discussions related to alternatives to the use of AP landmines.

What are Anti-Personnel Landmines?

As defined by the Anti-Personnel Landmine Ban Convention,[1] also known as the "Ottawa Convention" or the "AP Mine Ban Convention", an anti-personnel ("AP") landmine is:

> ...a mine designed to be exploded by the presence, proximity or contact of a person and that will incapacitate, injure or kill one or more persons.[2]

History of the Use of Anti-Personnel landmines

Historical antecedents to anti-personnel landmines may have included spikes and stakes, including caltrops, a four-pronged spiked device, used by the Romans 2000 years ago.[3] The earliest use of explosive landmines may either have been in China, during the early Ming Dynasty (600 years ago),[4]or it may be the use in 18th century Germany of the "flying mine", a ceramic container with two pounds of gunpowder buried at a shallow depth and activated by the pressure of a footstep.[5]

Modern explosive landmines were extensively developed and used during the American Civil War, with the first casualties reported on May 4, 1862.

Christopher Harland is Regional Legal Adviser for South Asia at the International Committee of the Red Cross.

Interestingly, the brigadier-general who laid the first mines during that war later deemed them "barbaric" and forbade their further use.[6]

Afghanistan is one of the most heavily mined countries in the world, together with Cambodia and Angola.

World War I saw very limited use of landmines, the exception being those laid, along with booby-traps, in abandoned positions in anticipation of an enemy advance.[7] World War II, however, saw large-scale use of anti-personnel landmines in two areas of operation. First, the Egyptian and Libyan deserts saw extensive mining, for which there was some limited marking of mines.[8] Second, the Eastern Front in Europe was extensively mined by retreating German soldiers, and mines still exist in France, the Netherlands, and Slovakia, among other countries, although many of these mines are anti-tank rather than anti-personnel.[9]Over 300 million anti-tank mines were laid during the war, according to US military sources[10]

From World War II, to the 1997 decision by 121 states to proceed with a ban on the use of anti-personnel landmines, to the present ban on their use by 156 states, through the Ottawa Convention, many wars saw AP landmines used, including the following:

Korean Conflict (1951-1953): Mostly AP rather than anti-tank mines used, with mixed results. Useful at the beginning, but later inconvenient when tactical changes called for their removal, and were sometimes feared by friendly forces as much as by the enemy.[11]

Indochina and Vietnam (1958-1968): Mines used in all phases but were generally seen as a doubtful asset. The US lost many men to mines, many of which were likely US in origin.[12]

India-Pakistan Wars (1947-48, 1965, 1971): A small number of mines were used in the 1947-48 War to protect installations, while, during the protracted build-up to the 1965 War, main minefields were laid on the plains by both parties. In the 1971 War, very few mines were laid because the terrain was soft riverine country. The contribution of these minefields to the ultimate outcome of the conflicts was considered to be marginal.[13]

India-China War (1962): Some mines in mountainous areas were laid as the conflict progressed. This caused major problems as AP mines had no effect in snow and, worse, they slid down the slopes, even if anchored. Mapping was difficult and ineffective.[14]

South Africa and Neighbouring States (1960s-1994): Mines were laid by the

South African Defence Force (SADF) primarily in fenced and marked areas around military encampments and installations. Insurgents also laid mines randomly. Maintenance of minefields was difficult, as mines shifted due to the weather, and animals frequently wandered into the minefields, requiring the removal of carcasses for hygienic reasons. Based on this experience, South Africa abandoned plans in 1988 to lay a 30-km minefield on the Namibian border because it would have cost millions in man-hours, machines and material.[15] South Africa estimated that the enemy could outflank the obstacle in 30 minutes.

Internal Conflicts in the Philippines (1945-onwards): Since mobility was necessary, AP mines were considered to be of little value. Instead, forces relied on accurate intelligence, natural terrain features, barriers such as barbed and concertinaed wire, foxholes and trenches.[16]

Arab-Israeli Wars (1967 and 1973): Many mines were laid by both sides in the Sinai. Despite maps being handed over, casualties were sustained by both sides after the ceasefires. A major study of these wars found that defensive minefields were only effective when watched over and properly maintained. In any case, they were judged less useful in disrupting enemy advances than barriers, whether deep or high.[17]

Afghanistan (1979 Onwards): Afghanistan is one of the most heavily mined countries in the world, together with Cambodia and Angola. At least 30 types of mines from six countries have been laid in Afghanistan, including air-dropped AP landmines. The maps were inaccurate as a result of the 'overlaying' of mines by the various sides.[18]

Iran-Iraq War (1980-1989): Both sides used mines freely, with Kurdistan greatly affected. At times, minefields were breached with the use of children "martyrs."[19]

Bosnia and Herzegovina (1992-1995): All sides laid millions of mines, many of them plastic. Post-war demining has been a major effort. The maps did not consistently reflect the reality on the ground, in places due to mountainous terrain, which may have entailed shifting. [20]

Angola (1975 – 1994): Both AP landmines and anti-tank mines were laid by many fighting forces, including those of Cuba, Angola, UNITA and the South African Army, sometimes in concentric circles around towns. Angola is possibly the most mine-infested country in Africa, with a high proportion of amputees in its general population.[21]

Cambodia (1978-): The use of mines against the lives and property of the civilian population was a tactic of the Khmer Rouge. Areas demined were later remined. The government has, at times, blocked humanitarian organisations from

assessing the extent of the contamination. Cambodia probably has the world's highest percentage of amputees in its general population.[22]

Ethiopia and Eritrea (1935- 1945, 1962-1991, 1998-2000): The area close to the border between Eritrea and Ethiopia is presently heavily affected from mines laid in the 1998-2000 war between the two countries. Ethiopia currently suffers from problems related to unexploded ordnance (UXO), as well as landmines, and ten of its eleven districts have UXO and AP problems, although AP problems are concentrated in areas bordering Eritrea, including Tigray and Afar.[23]

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The Creation of the Ottawa Treaty

The Four 1949 Geneva Conventions form the cornerstone of international humanitarian law. In the early 1970s, attempts were made to update the Geneva Conventions through the adoption of new protocols. This culminated, in June 1977, with the adoption of the Additional Protocol I (covering international armed conflicts) and Additional Protocol II (covering non-international armed conflicts).[24]Attempts to regulate a series of weapons (those releasing non-detectable fragments, landmines and incendiary weapons) proved elusive.[25]The diplomatic conference established to develop the protocols eventually recommended that these and other weapons treaties be developed through the United Nations in a separate process, which led, in 1980, to the Convention on Certain Conventional Weapons (CCW), and its first three protocols.[26]Protocol II placed restrictions, *inter alia,*on anti-personnel landmines in civilian concentrated areas.[27]

However, increasing civilian AP landmine casualties, in particular in Afghanistan, in the late 1980s and early 1990s led to calls to strengthen the treaty provisions regulating AP landmines.[28] States were divided on the issue, while the International Committee of the Red Cross (ICRC) shifted its position to call for a total ban on AP landmines in early 1994.[29]States eventually agreed to amendments to CCW Protocol II in 1996 to place further restrictions on the use of anti-personnel landmines, without agreeing to an outright ban.[30]

During the discussions on amending Protocol II to the CCW, many states felt that the outcome was not sufficient, and, in October 1996, Canada called for a

treaty, outside the UN process, which would ban landmines, to be concluded by the end of 1997.[31] A series of conferences in 1997 eventually led to the text of the *Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction* of September 18, 1997, with 121 states signing at a convention at Ottawa on December 3-4, 1997.[32] The treaty is thus often referred to as the "Ottawa Convention". The treaty is notable in that it bans a weapon widely used and stockpiled by states.

What Does the Ottawa Treaty Contain?

Five elements of the Ottawa Treaty are noted here, namely, prohibition, destruction, victim assistance, reporting and national implementation.[33]

First, the treaty *prohibits* the use, development, production, acquisition, stockpiling, retaining or transferring of anti-personnel landmines.[34] It provides some exceptions to these prohibitions, for the development and teaching of mine detection, mine clearance or mine destruction techniques, as well as for the transfer of AP landmines for the purpose of destruction.[35]

Second, the treaty contains provisions related to the *destruction* of AP landmines. Article 4 requires states party to the convention to destroy their stockpiles of AP landmines within four years of accession, while Article 5 requires that emplaced mines be destroyed within ten years, although a request for an extension is permitted to be made to the meeting of states parties.

Third, the treaty provides, in Article 6, for assistance to be given to states in mine clearance, *victim assistance*, and mine awareness. Significant efforts have been made relative to this Article since the entry into force of the Convention. states party to the Convention in a position to do so are required to provide assistance to those states party to the Convention who do not have sufficient means. States parties meet twice a year in order to, *inter alia,* follow-up on actions taken relative to such assistance.

Fourth, states parties are required, under *transparency measures*,[36] to report on a series of elements relative to the Convention on an annual basis, including on legislation adopted to comply with the Convention, mines currently held, mine destruction, mine clearance, etc.[37] In practice, this requires a fair amount of work in the first year, but thereafter it is much easier to comply with.

Fifth, under Article 9 of the Convention, states must adopt national measures, including *penal sanctions* (criminal offences) to punish violations of Article 1 of the Convention. This also includes the prohibitions on assisting, inducing and encouraging any of the seven prohibitions in Article 1. At least

53 states have adopted new legislation in this respect,[38] while the ICRC has published a model law, which should assist common law states in complying with Article 9 of the Ottawa Convention, and maintains a database of national implementation measures taken by other states, which provides a basis with which to draft national legislation.

AP landmines, however, have proved 'effective' in creating large numbers of civilian casualties. As attacks against civilians are prohibited by international humanitarian law, this is not, of course, a benefit.

Effect of the Ottawa Convention

The Convention appears to be having a positive humanitarian effect. In terms of survivors of AP landmines, the *Landmine Monitor* reported the following change in the last few years:[39]

> The 2006 casualty total is also less than half the 11,700 new casualties reported in 2002, which can be attributed to positive effects of the Mine Ban Treaty and the efforts of mine action organizations. It is reasonable to assume that the long-standing estimate of 15,000-20,000 new mine/ERW casualties per year no longer holds.

According to the *Landmine Monitor Report* of 2007, states party to the Convention had, upto 2006, destroyed 41.8 million AP landmines, leaving approximately 176 million mines stockpiled by 46 countries, compared with over 260 million mines stockpiled prior to the Convention.[40]

Thirty-eight countries have stopped producing AP landmines, leaving only thirteen producers left. Interestingly, large pension funds in New Zealand and the Netherlands have recently decided to divest from companies that produce AP landmines.[41]

Only two states appear to have laid AP landmines in 2006, while the use of mines by non-state armed groups appears to be rising.[42]

Military Utility of AP Landmines

Virtually all weapons have military utility, including anti-personnel landmines. The question, therefore, is whether the military utility outweighs the costs of its use. A 1994 panel of military experts convened by the ICRC was unanimous in claiming the effectiveness of AP mines as a weapon of war, and in restating their utility.[43] In reviewing the extent of its utility, however, the military experts were

less enthusiastic. Some of their conclusions include:

1. **It is Not Hard to Breach an AP Landmine Field:** The US breached the Iraqi minefields around Kuwait in two hours in 1991, although nine million mines had been laid in Kuwait.[44] In the former Rhodesia, border minefields which were laid in a belt 25 m wide were breached by infiltrators using shovels in about two hours. Eventually, the width was increased to 300 m and then 2 km, but it was still breached.[45]
2. **There is a High Cost in Laying and in Maintaining an AP Minefield:** It must be constantly surveyed and covered, and if not done, will not significantly prevent infiltration. The lack of proper maintenance and surveillance has rendered many minefields useless. Mines protecting military encampments have deterrent value, while also creating other problems. Soil erosion caused by heavy precipitation, enemy attacks and frequent incursions by animals cause problems. Dead animals move the mine, rot and cause both a stench and a health hazard. Encampment mines also hem in the soldiers who laid them and reduce flexibility in case of a need to escape.[46]
3. **AP landmines are not appropriate in some terrain.** In particular, slopes and sand were mentioned, as was snow.[47]
4. **AP Landmines are Becoming Less Effective Against Modern Armoured Warfare**: In Iraq, in 1991, for example, the US 2nd Brigade, 1st Infantry Division breached Iraqi positions with no need to dismount through the breach, as the tankers used mine plows to collapse Iraqi trenches. This has been compounded by the use of mine-removal systems including flails and explosive devices to activate mines ahead of advancing forces.[48]
5. **AP Landmines Have Produced 'Doubtful' Results in Protecting Infrastructure:** When power stations in Rhodesia were not covered by small arms fire, saboteurs simply shovelled their way across the minefield, damaged the station, and left. In Bosnia, soldiers blew out insulators on power pylons with direct fire from outside the mined areas.[49]
6. **AP Landmines are not Effective if the Opponent has the Will to Sustain High Casualty Figures:** In the Iraq War of 1991, in the Korean conflict, and during other highly-motivated revolutionary struggles, AP mine utility was vastly reduced as forces simply breached minefields, and casualty rates were estimated at around 1 to 3 per cent. [50] Mass infantry attacks enabled Chinese forces in Korea to pass through extensive AP minefields erected around UN positions.[51]
7. **AP Landmines Have Not been Decisive in Winning Battles:** While some military utility is accepted, these four statements are indicative of

comments made at the 1994 meeting of military experts.[52]

(a.) "Anti-personnel landmines are not of vital importance to the Swedish national defence." (Commander-in-chief of the Swedish Army.)

(b.) "Where 'regular military use' is concerned, there is no case known where AP mines as such have influenced a campaign, a battle or even a skirmish in any decisive way. They marginally increase the usefulness of anti-tank mine fields as instruments of delay and marginally raise the human cost of breaching them. My point is that these effects are simply not worth the candle when measured against the scale of human suffering they cause." (British general testifying to UK Parliament.)

Each state not yet a party to the AP Mine Ban Convention must decide for itself whether the military utility of the weapon justifies the humanitarian cost, which, unlike most other weapons, increases rather than decreases after the end of the conflict.

(c.) "I know of no situation in the Korean War, nor in the five years I served in Southeast Asia, nor in Panama, nor in Desert Shield – Desert Storm where our use of mine warfare truly channelized the enemy and brought him into a destructive pattern. I'm not aware of any operational advantage from broad deployment of mines." (Former US Marine Corps commandant.)

(d.) "Anti-personnel mines are of substantially more restricted utility than anti-tank mines." (US Pentagon-commissioned study into AP landmines by the Institute for Defence Analysis.)

Humanitarian and Other Costs of AP Landmines

AP landmines, however, have proved 'effective' in creating large numbers of civilian casualties. As attacks against civilians are prohibited by international humanitarian law, this is not, of course, a benefit. The following are some of the costs that should be borne in mind in deciding upon whether to continue with AP landmines.

1. **Losses of One's Own Soldiers:** Mine laying and mine clearing is a dangerous business, and many soldiers have died over the years in laying and clearing AP landmines.
2. **Civilian Deaths and Injuries, Post-Conflict:** Worldwide, civilians have been

far more affected by landmines than have combatants, with three-quarters of new casualties in 2006 being civilians, and a third of all casualties being children.[53]AP landmines continue to kill and injure after the end of a battle, unlike most other weapons. As of August 2007, some 473,000 landmine survivors had been identified.[54]

3. **Loss in Sympathy from the People of the Land in Question:** AP landmines are often laid in tense border regions, where the loyalty of civilians in the area may present a challenge to the armed forces in control of the territory. Laying weapons that kill after the conflict is over can create distrust between the armed forces and the local population, making wars more difficult to win in the future.
4. **Loss of Support from the Population in General:** As the number of states agreeing to the ban reflected in the Ottawa Treaty increases, the stigma attached to AP landmines increases as well. Soldiers do not like to fight with a weapon that may be seen as improper, and the support of the population for the armed forces may weaken if it is seen to lose moral authority through the use such weapons. In addition, the moral authority to condemn the increasing use of AP landmines by non-state actors is stronger when the country in which the non-state armed groups act is itself a party to the Ottawa Treaty.
5. **Loss of Usable Land:** AP landmines are often placed in or near agricultural land, or land that has other uses for the community, such as forests or areas of tourism potential. As clean-up operations are difficult to carry out with complete accuracy, leaving some AP mines in the ground, this negatively affects the livelihood of civilians in the regions affected by the mines.
6. **Costs in Rehabilitation of the Wounded:** Thousands of people are injured each year by AP landmines remaining in the ground after the end of a conflict. Survivor assistance requires millions of dollars worldwide each year, money which could be better spent if the mines were not laid in the first place.[55]
7. **Costs in Mine Clearance:** Over US$ 500 million was spent in 2006 for demining, and this is a very small fraction of the money needed to clear the world of existing mines.[56] This money could be much better spent on education, other health programmes or national defence, if the AP mines had not been laid in the first place.

Alternatives to AP Landmines

While many potential alternatives exist to AP landmines, there is probably not one "magic bullet" and many armed forces which no longer use AP landmines have

simply found that they have not needed the weapon any longer. This is in contrast to anti-tank mines, which have proved a significantly more useful weapon.

Some of the other options that exist, however, as alternatives to AP landmines, include:

1. **Ditches, Lights, Spikes, Slippery Surfaces and Foam:** However, these are likely to be somewhat less effective than AP landmines.[57]
2. **Barbed-wire Entanglements,** when covered by aimed fire, can exert an equivalent delaying effect on enemy troops, although they are slow and labour-intensive to deploy and maintain.[58]
3. **Protective Fences, in Combination with Sensors,** have played an important role in many areas in the world.[59] This is perhaps the most interesting option examined. In South Africa, government troops used perimeter demarcation, harmless mechanical and electronic sensors, and Claymore mines in command-detonated mode, visibly mounted on posts above ground. A soldier would confirm the firing command initiated by a trigger of the sensors. A key element was the *elimination of minefield maintenance,* because the system could simply be turned off when necessary. Further, sensors linked to direct fire weapons such as mounted machine guns would likely be far more effective than minefields in preventing infiltration. Estimated probabilities of an opponent hitting an AP landmine were at around 25 per cent while continuous sensors approach 100 per cent.[60]
4. **Good Intelligence, Normal Vigilance and Tactical Flexibility** were highlighted as viable alternatives to the use of AP landmines in the Philippines.
5. **Trip Flares and Night Vision Equipment** to aid in early warning.
6. **Remote Surveillance Methods** such as electronic sensing devices, for those states with the capabilities to implement them.

Conclusion

This paper seeks merely to outline some of the history and issues related to AP landmines and the Ottawa Treaty. Each state not yet a party to the AP Mine Ban Convention must decide for itself whether the military utility of the weapon justifies the humanitarian cost, which, unlike most other weapons, increases rather than decreases after the end of the conflict. The ICRC would encourage states not party to the AP Mine Ban Convention to continue to engage in weighing this balance between the military utility of anti-personnel landmines and their humanitarian cost.

Notes

1. The full title is the *Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction* of September18, 1997 (opened for signature on December 3, 1997), available at http://www.icrc.org/ihl.nsf/FULL/580?OpenDocument.
2. The definition goes on to include the following, "Mines designed to be detonated by the presence, proximity or contact of a vehicle as opposed to a person, that are equipped with anti-handling devices, are not considered anti-personnel mines as a result of being so equipped."
3. M Croll, *The History of Landmines (*Barnsley: Leo Cooper, 1998) at p. ix, as cited in S Maslen, *Commentaries on Arms Control Treaties Vol I, The Convention on the Prohibition of the Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and on their Destruction, p. 2.*
4. See "600-Year-Old Mines Unearthed in Inner Mongolia", cited as being published on November 4, 2001, and available at http://www.china.org.cn/english/10961.htm.
5. Maslen ,*Commentaries,* p. 2 citing Croll, *The History of Landmines,* p. 10.
6. Ibid., p. 16.
7. Ibid.
8. *ICRC, Anti-Personnel Landmines: Friend or Foe?* (ICRC, 1996), p. 26.
9. Ibid.
10. Maslen *Commentaries,* p.4, citing US Defence Intelligence Agency document DST-1160S-019-92 (December 1992).
11. *Friend or Foe*?,p.28 Note that maps handed over to the two Koreas seem to have been incomplete.
12. Ibid., p. 29, citing N Schwarzkopf, *It Doesn't Take a Hero* (New York, 1992) p. 163-164.
13. Ibid., 29, citing Maj Gen Banerjee, co-director, Institute for Peace and Conflict Studies, New Delhi.
14. Ibid., p. 29.
15. Ibid., p. 32.
16. Ibid., p. 32.
17. A Cordesman and A Wagner, *The Lessons of Modern War*, Vol I. (Boulder:Westview Press, 1992), 70, cited in *Friend or Foe?* p.33.
18. *Friend or Foe*? p. 35, citing discussions held with mine clearance teams in 1992.
19. Ibid., p. 35.
20. Ibid., p. 38 and including observations of Brig Paddy Blagden, former UN Mines Adviser.
21. Ibid., p. 33.
22. Ibid., p. 34.

23. See the 2007 Landmine Monitor reports on Eritrea and Ethiopia, available at www.icbl.org.
24. For background to the treaty, see http://www.icrc.org/ihl.nsf/CONVPRES?OpenView..
25. Maslen, *Commentaries*, p. 16.
26. For a discussion of the ICRC's involvement in weapons issues, see Yves Sandoz's speech in 2000, at http://www.icrc.org/web/eng/siteeng0.nsf/html/57JQAN.
27. Article 4(2) of CCW Protocol II provides:

"2.It is prohibited to use weapons to which this Article applies in any city, town, village or other area containing a similar concentration of civilians in which combat between ground forces is not taking place or does not appear to be imminent, unless either: (a) they are placed on or in the close vicinity of a military objective belonging to or under the control of an adverse party; or (b) measures are taken to protect civilians from their effects, for example, the posting of warning signs, the posting of sentries, the issue of warnings or the provision of fences."

28. Maslen, *Commentaries*, p. 18.
29. Ibid., p. 19.
30. See Article 5 to the CCW.
31. For a discussion of the development of the "Ottawa Process", see Maresca and Maslen, *The Banning of Anti-Personnel Landmines,* pp. 460-461.
32. See Department of Foreign Affairs and International Trade (DFAIT) of Canada in an undated (but 1997) fact sheet entitled "A Global Ban on Landmines."
33. Other issues covered by the Convention include fact-finding missions to determine whether a violation of the Convention has occurred, interoperability of forces under the "assistance" provision of Article 1, and reservations and amendment procedures related to the Convention. While interoperability is not dealt with directly in ICRC publications, these issues are discussed with countries when legislation is drafted.
34. Article 1 of the Ottawa Convention. Note that this prohibition does not relate to command-detonated mines, nor does it cover anti-vehicle mines.
35. Article 3 of the Ottawa Convention.
36. Article 7 of the Ottawa Convention.
37. See http://www.icrc.org/Web/eng/siteeng0.nsf/html/review-859-p573.
38. ICBL, *Landmine Monitor* Report 2007, at http://www.icbl.org/lm/2007/es/ban.html#Production_of_Antipersonnel_Mines
39. Ibid.,at http://www.icbl.org/lm/2007/es/landmine_casualties_and_survivor_assistance.html#New_Casualties_in_2006.
40. ICBL, *Landmine Monitor Report* 2007, at http://www.icbl.org/lm/2007/es/ban.html#Antipersonnel_Mine_Stockpiles_and_Their_Destruction_(Article_4).
41. Ibid.

42. Ibid.
43. *Friend or Foe?* p. 40.
44. Ibid., p. 41.
45. Ibid., p. 48.
46. Ibid., p. 46.
47. Ibid., p. 42, and see discussions surrounding mines in the Rajasthan desert and in the Himalayas.
48. Ibid., pp. 42-43.
49. Ibid., p. 48.
50. Ibid., p. 43.
51. Ibid., p.43, citing Dan Raschen, *Send Port and Pyjamas* (Buckland Publications, London: 1987) at p. 237.
52. Ibid., See the quotes on pp.44 to 45.
53. ICBL, *Landmine Monitor Report* 2007, accessed at http://www.icbl.org/lm/2007/es/landmine_casualties_and_survivor_assistance.html#Progress_in_Meeting_VA24_Survivor_Assistance_Objectives_2005-2009.
54. See http://www.icbl.org/problem/solution/survivors
55. See http://www.icbl.org/lm/2007/es/landmine_casualties_and_survivor_assistance.html#Funding_and_Resources.
56. ICBL, *Landmine Monitor Report* 2007, accessed at http://www.icbl.org/lm/2007/es/mine_action_funding.html#International_Funding_of_Mine_Action.
57. *Friend or Foe?* p.65.
58. Ibid., p. 65.
59. Ibid.
60. Ibid., p. 67.