

A. Dying for Water

N.B. As per the [disclaimer](#), neither the ICRC nor the authors can be identified with the opinions expressed in the Cases and Documents. Some cases even come to solutions that clearly violate IHL. They are nevertheless worthy of discussion, if only to raise a challenge to display more humanity in armed conflicts. **Similarly, in some of the texts used in the case studies, the facts may not always be proven;** nevertheless, they have been selected because they highlight interesting IHL issues and are thus published for didactic purposes.

[Source: ZEMMALI Aneur, «Dying for Water», in *Forum. War and Water*, ICRC, Geneva, 1998, pp. 31-35]

In modern armed conflicts, even were the general prohibition under international law on the use of poison to be complied with, water could still be contaminated as a direct result of military operations against water installations and works. Indeed, destroying or rendering useless part of a water production system is sometimes enough to paralyse the system as a whole. If repair work is held up because of continuing hostilities or for other reasons, such as a shortage of spare parts or inadequate or poor maintenance and cleaning procedures, there is an obvious and considerable risk of contamination, shortages or epidemics. [...]

An occupying power may [...] expropriate land, thus swallowing up springs and wells; may totally or partially prohibit the people in the occupied territories from irrigating the land, from using the water sources and watercourses to grow crops or run or develop their holdings as going concerns; may prevent the occupied population from siphoning off surface or groundwater or reaching aquifers; and may impose pumping quotas. [...]

These are all so many ways in which the occupied territory can be emptied of its original inhabitants. Of course, such moves do not affect just the population but also crops and livestock. [...]

In civil wars, which today account for most of the armed conflicts in the world, the use of water by the belligerent parties constitutes a serious threat to the population concerned. The expression “environmental or eco-refuge”, which has become fashionable recently to describe people displaced as a result of the effects of armed conflicts or other disasters on their natural environment, is symptomatic of the serious damage these can do. Just taking as an example the hostilities carried out in a period of internal conflict, destroying or rendering useless a source of drinking water or a safe water supply can in very short order deprive the local population of an essential commodity; in the case of a “hostile” population or a population in an arid region, it is easy to imagine just what the outcome would be.

While thirst may sap the morale of troops on the battlefield, the lack of a safe water supply may force a population into exile and condemn crops and livestock to wither and die. To attack water is to attack an entire way of life. [...]

War's effect on access to water

[...] What can a peasant farmer do when faced with an armed soldier who blocks his access to water for personal use, for livestock or for irrigation? What's to be said when a hydraulic plant, water installations, supplies and irrigation works or the path leading to them have been mined? [...]

Despite the neutrality of humanitarian assistance, relief personnel are not spared the ill-treatment meted out to civilians. Repairing and restoring water installations, works and facilities require complex operations which involve bringing together the necessary technical expertise, equipment and manpower. Any action against one of these components hampers the others and makes access to water well nigh or completely impossible, thereby heightening the risks to the civilian population despite the protection it is granted under international law.

What the law says

Although international humanitarian law applicable in armed conflicts contains no specific regulations on water protection, it does have a number of rules relating to the subject. First it should be remembered that this branch of international law primarily seeks to protect any individual who is in the hands or in the power of the enemy, and that the assistance or relief which is their due is inconceivable without a guaranteed minimum level of health and hygiene – in other words, without water, which is the life-giving element in any and all circumstances.

Humanitarian law is also designed to protect civilian objects, including those indispensable to the survival of the civilian population. Article 29 of the Convention on the law relating to the non-navigational uses of international watercourses [available on <http://www.un.org>], adopted by the General Assembly of the United Nations in 1997, stipulates:

“International watercourses and related installations, facilities and other works shall enjoy the protection accorded by the principles and rules of international law applicable in international and non-international armed conflict and shall not be used in violation of those principles and rules”.

General protection under the law applicable to armed conflicts extends to more than international watercourses, and the four main prohibitions laid down in that law are worth noting:

- the ban on employing poison or poisonous weapons;
- the ban on destroying, confiscating or expropriating enemy property;
- the ban on destroying objects indispensable to the survival of the civilian population;
- the ban on attacking works or installations containing dangerous forces.

The four prohibitions, to which should be added the provisions on environmental protection, are expressly mentioned in the instruments relating to international armed conflicts, and the last two are also laid down in the law applicable to non-international armed conflicts. Starvation as a method of warfare is explicitly prohibited regardless of the nature of the conflict, and the concept of objects essential for the survival of the civilian population includes drinking-water installations and supplies and irrigation works. Immunity for indispensable objects is waived only when these are used solely for the armed forces or in direct support of military action. Even then, the adversaries must refrain from any action which could reduce the population to starvation or deprive it of essential water.

On the subject of works or installations containing dangerous forces, humanitarian law explicitly mentions dams, dykes and nuclear electrical generating sections. Even where these are military objectives, it is forbidden to attack them when such action could release dangerous forces and consequently cause heavy losses among the civilian population. The ban also extends on the same terms to other military objectives at or in the vicinity of such facilities. Immunity from attack is waived only when one or other of the works, installations or facilities is used in regular, significant and direct support of military operations and if attacks are the only feasible way to terminate such support.

So as best to ensure the protection of the civilian population and civilian objects, humanitarian law provides for certain precautionary measures including their removal from the vicinity of military objectives and their protection against dangers resulting from military operations. Reprisals against civilian objects are forbidden, and this explicitly applies to objects indispensable to the survival of the civilian population and works or installations containing dangerous forces.

The appropriate sanctions are incurred when such prohibitions are breached. Among the acts considered war crimes under humanitarian law are the following "grave breaches": extensive destruction and appropriation of property not justified by military necessity and carried out unlawfully and wantonly, indiscriminate attacks on the civilian population or civilian objects, and attacks against works or installations containing dangerous forces. In addition, international criminal law has just extended the list of war crimes and applied them to non-international armed conflicts as well. Among the acts committed in international armed conflicts and classified as war crimes in the Statute of the International Criminal Court adopted on 17 July 1998, [...] are attacks which cause widespread, long-lasting and severe damage to the natural environment, employing poison or poisonous weapons, intentionally using starvation of civilians as a method of warfare by depriving them of objects indispensable to their survival, including wilfully impeding relief supplies as provided for under the Geneva Conventions. [...]

B. Berlin Rules on Water Resources

[Source: Berlin Rules on Water Resources, adopted by Resolution No. 2/2004 of the 7th Conference of the International Law Association, held in Berlin, Germany, 16-21 August 2004, available on <http://www.ila-hq.org>]

[...]

CHAPTER X: PROTECTION OF WATERS AND WATER INSTALLATIONS DURING WAR OR ARMED CONFLICT

Article 50: Rendering Water Unfit for Use

Combatants shall not poison or render otherwise unfit for human consumption water indispensable for the health and survival of the civilian population.

Commentary: The prohibition of poisoning of drinking water is a rule of customary international law. Annex to the 1864 Hague Convention Respecting the Laws and Customs of War on Land, art. 23 (a). Civilians are entitled to an adequate water supply under all circumstances. Hence the prohibition of any action, whatever the motive, which would have the effect of denying the civilian population of the necessary water supply. The rule has been expanded to protect all vital human needs, a concept that in these Rules means water necessary to assure human health and survival. [...] This principle is also found in Protocol I [...], art. 54.

Article 51: Targeting Waters or Water Installations

1. Combatants shall not, for military purposes or as reprisals, destroy or divert waters, or destroy water installations, if such actions would cause disproportionate suffering to civilians.

2. In no event shall combatants attack, destroy, remove, or render useless waters and water installations indispensable for the

health and survival of the civilian population if such actions may be expected to leave the civilian population with such inadequate water as to cause its death from lack of water or force its movement.

3. In recognition of the vital requirements of any party to a conflict in the defense of its national territory against invasion, a party to the conflict may derogate from the prohibitions contained in paragraphs 1 and 2 within such territories under its own control where required by imperative military necessity.

4. In any event, waters and water installations shall enjoy the protection accorded by the principles and rules of international law applicable in war or armed conflict and shall not be used in violation of those principles and rules.

Commentary: Paragraph 1 introduces a proportionality limitation on the destruction or diversion of water and water installations. Protocol I contains no specific rule on proportionality regarding water resources. The rule in paragraph 1 reflects the general rule of proportionality in armed conflict. No rule provides an absolute prohibition against an otherwise legitimate means of warfare, solely on account of potential incidental civilian damage. For example, damming or diverting a river in order to enable movement of troops cannot be outlawed automatically because of potential harm to civilians. The criterion for prohibition must be harm to civilians disproportionate to the military advantage. [...] Paragraph 2 comes from several provisions found in Protocol I, primarily art. 54 of the Protocol. The protection of ecological integrity during wars or armed conflicts is provided in Article 52.

Yoram Dinstein described art. 54 as “unjustifiable and utopian” because “the legality of siege warfare has not been contested in classical international law” and “if the destruction of foodstuffs sustaining the civilian population in a besieged town is excluded, how can a siege be a “siege?” [Footnote 22: Yoram Dinstein, *Siege Warfare and the Starvation of Civilians*, in *HUMANITARIAN LAW OF ARMED CONFLICT: CHALLENGES AHEAD; ESSAYS IN HONOUR OF FRITS KALSHOVEN* 145-46 (Astrid Delissen & Gerard Tania eds 1991).] The official commentary on Protocol I by the International Committee of the Red Cross concedes that the “statement of this general principle [prohibiting starvation of population as a method of warfare] is innovative and a significant progress of the law.” The U.S. Department of State has taken the position that the provisions of Protocol I that “starvation of civilians is not to be used as a method of warfare” are among those provisions that “should be observed and in due course recognized as customary law, even if they have not already achieved that status.” The U.S. Naval Military Manual also recognizes this as a customary rule. While it would be advisable for States to mark such installations clearly to minimize the risk of damaging them, international humanitarian law does not require this. See Additional Protocol I, Annex I.

Paragraph 3 recognizes an exception for nations destroying water installations as an act of national self defense. See Protocol I, art. 54(5). Even then, States may derogate from the obligation not to damage water facilities only when compelled by dire (imperative) military necessity. Nor is there any prohibition in international law against denying water to enemy armed forces. The U.S. Army Field Manual states in fact that there is no prohibition against “measures being taken to dry up springs, to divert rivers and aqueducts from their courses.” Presumably this refers to springs, etc., used by the military and not necessary for civilian survival. [...] Paragraph 4 merely reinforces the point that waters and water installations are subject to protection under the law of war and armed conflict.

Article 52: Ecological Targets

Combatants shall not, for military purposes or as reprisals, destroy or divert waters, or destroy water installations, when such acts would cause widespread, long-term, and severe ecological damage prejudicial to the health or survival of the population or if such acts would fundamentally impair the ecological integrity of waters.

Commentary: Protocol I contains two general provisions relating to ecological harm, Arts 35 and 55. Art. 55, with its emphasis on health and survival of the population is of greater relevance to water resources. The text here follows that of Protocol I, art. 55, except that the word “care” is infelicitous in the circumstances, applying a weak and vague criterion. It is arguable that the provision of Protocol I regarding ecological damage and this Article are not yet customary law. Consistent with the emphasis on ecological concerns in these Rules, this Article extends protection to the fundamental ecological integrity of the waters in question. The allegations made after the Gulf War that the Iraqi actions violated the laws of war by impairing the ecological integrity of Kuwait and the Gulf region suggest that the law is at least moving in this direction. The Advisory Opinion on the Use of Nuclear Weapons suggests that customary international law does indeed prohibit the causing of widespread, long term, and severe ecological damage prejudicial to the health or survival of the population. [...] This broader approach also appears to be required by the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques.

Article 53: Dams and Dikes

1. In addition to the other protections provided by these Rules, combatants shall not make dams and dikes the objects of attack, even where these are military objectives, if such an attack may cause the release of dangerous forces and consequent severe losses among the civilian population.

2. This protection ceases if the dam or dike is used for other than its normal function and in regular, significant, and direct support of military operations and such attack is the only feasible way to terminate such use.

Commentary: This Article reproduces from Protocol I, art. 56(1), (2), with editorial changes. The rule apparently is not yet customary law. This rule “raises serious doubts about, for example the RAF “dambusters” raid during the Second World War,

although the principal dams concerned “undoubtedly supplied power for a vital war industry.” The 1992 German Military Manual interprets “significant and direct support of military operations” as comprising “for instance, the manufacture of weapons, ammunition and defense materiel. The mere possibility of use by armed forces is not subject to these provisions.” [...]

Article 54: Occupied Territories

1. An occupying State shall administer water resources in an occupied territory in a way that ensures the sustainable use of the water resources and that minimizes environmental harm.
2. An occupying State shall protect water installations and ensure an adequate water supply to the population of an occupied territory.

Commentary: Under customary international law, an occupying State is only the administrator with a usufruct of State property. The U.S. Army Field Manual stipulates that the occupier “should not exercise his rights in such a wasteful and negligent manner as seriously to impair its value.” Applying this criterion to water resources requires the occupier to limit the use of water resources so as to ensure sustainability and to minimize environmental harm. The Fourth Geneva Convention, art. 55, stipulates that “[t]o the fullest extent of the means available to it, the Occupying Power has the duty of ensuring the food and medical supplies of the population.” This Article strengthens the rule as regards water supply and the obligation is made absolute. The language in the Madrid Armed Conflict Rules, art. VI, is more specific and detailed; whether it makes a real change is debatable. [...]

Article 55: Effect of War or Armed Conflict on Water Treaties

1. Treaties creating legal regimes for an international watercourse or part thereof are not terminated by war or armed conflict between the parties to the treaty.
2. Such Treaties or parts thereof shall be suspended only where military necessity requires suspension and where suspension does not violate any provision of this Chapter.

Commentary: The rules of international law relating to the effect of armed conflict on validity of treaties are not entirely settled. The customary rule apparently is represented by Lord McNair’s statement that “State rights of a permanent character, connected with sovereignty and status and territory, such as those created or recognized by a treaty of peace are not affected by the outbreak of war between the contracting parties.” [Footnote 24: A.D. MCNAIR, THE LAW OF TREATIES 705 (2nd ed. 1961).] [...]

Discussion

1.
 - a. Do the Geneva Conventions and Protocol I sufficiently address the protection of water as an object indispensable for the survival of the civilian population in international and non-international armed conflicts?
 - b. Why are rules concerning water essential in warfare?
 - c. Do the four main prohibitions mentioned in the article (A. Dying for Water) provide adequate protection of water?
2.
 - a. Is not water needed for the civilian population by definition a civilian object that consequently may not be attacked? ([HR, Art. 23\(g\)](#); [P.I, Art. 52](#), [CIHL](#), Rules [7-10](#))
 - b. Is it sufficient to treat water like food under IHL? According to IHL, may foodstuffs destined for combatants be attacked and destroyed? ([P.I](#), Arts [52](#) and [54](#); [CIHL](#), Rules [7-10](#) and [54](#))
 - c. Shouldn’t water be considered a medical material? May such a material destined for combatants be attacked and destroyed under IHL? Could water be considered a medicine? ([GC.I, Art. 33](#))
3. Is water an object indispensable to the survival of the civilian population? Does an attack on an object indispensable to the survival of the civilian population violate IHL? Even though that object may simultaneously be a military objective? If such an object is a military objective, is it lawful to attack it as long as the attack is proportionate and necessary? ([P.I, Art. 54](#); [CIHL, Rule 54](#))
4. What does the adoption of Resolution 2/2004 mean for the protection of water in armed conflicts? Does it extend the pre-existing protection? Does it simply confirm this protection?
5. Do you agree with Yoram Dinstein’s description of Art. 54? Could the prohibition of starvation as a method of warfare be recognized as customary law? Why?
6. Could any or all of the provisions in the Berlin Rules on Water Resources be considered as customary law? Which ones?