

## Reflections on the Legal Regime of Water during Armed Conflicts

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### Introduction

The relation between water and war can be seen from many perspectives and it should be analysed under different angles: water can be the subject of international negotiations or it may be a cause of war. In time of armed conflict water becomes either a means of survival for populations to be protected or a weapon. Given that war is a destructive and negative phenomenon regardless of its causes such as ethnic tensions, control over a territory or over resources, relations between water and war, though extremely complex, are mostly seen through the same prism. Water is at the same time a cause of conflicts and one of its victims.

A popular myth often heard today is that the next big wars will be over water. “The waters of the Nile will be the cause of the next war in our region, not politics” said Boutros Boutros Ghali, the former Secretary General of the United Nations. Political science literature has greatly debated this supposed role of water as a driving force for conflict especially in the Middle East. Water as a cause of future wars has been developed partly by drawing a parallel with oil as a rare resource. However, one has to recognise that such a theory needs to be at best nuanced, and at worst, rejected. Historical evidence shows that water has rarely been the primary reason for armed conflict. Many scholars, like Thomas Homer-Dixon, have already shown that water may be among the causes of a war, but that is very rarely the sole one<sup>1</sup>. This expert points out the distinction to be made between renewable and non-renewable resources. The Declaration of the Ministerial Conference adopted at the Second World Water Forum held at The Hague in March 2000 went as far as to denounce “the myth of global water wars”<sup>2</sup>.

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<sup>1</sup> T. Homer-Dixon, “The myth of global water wars”, *Forum: Water and War*, International Committee of the Red Cross (ICRC), Geneva, 1998, p.13.

<sup>2</sup> Ministerial Declaration of The Hague on Water Security in the 21<sup>st</sup> Century adopted at the Second World Water Forum at the Hague in March 2000. Text available at: [http://www.thewaterpage.com/hague\\_declaration.htm](http://www.thewaterpage.com/hague_declaration.htm)

Whereas it is difficult to support the argument that wars arise simply over water, access to natural resources remains an element of tensions and disputes. The relationship between water scarcity and conflict is complex. As a high number of international watercourses are shared between countries, water and its use is undoubtedly a cause of tension and often strains relations between countries. Furthermore, water has been used as a weapon in conflicts and water installations have often been targets during conflicts which have had directly nothing to do with water. However, water may also foster cooperation. The great number of water-related treaties signed shows that, historically, water has been a source of cooperation far more often than a source of conflict. As pointed out by the UN Secretary General, water can be a “catalyst for cooperation”, the competing growing demands between uses and users can encourage cooperation on a regional basis, and will not necessarily lead to water wars.

Leaving aside considerations pertaining to *ius ad bellum* where water may be a source of conflict, the purpose of this presentation is to discuss whether international humanitarian law ensures the protection of water resources during armed conflict and how the status of this essential natural resource could be strengthened. History is full of examples which show that water resources have been used as a means of warfare. In 1503, Leonardo de Vinci plotted with Machiavelli to divert the course of Arno River in the war between Pisa and Florence. In the sixteenth century, during the eighty year war against Spain, the Dutch flooded their land to protect their towns from Spanish troops. This strategy became known as the “Dutch Water Line” and it was frequently used for defence in later years. In recent international and non-international armed conflicts water installations have often been targeted. In March 2003, during the Iraqi conflict, water facilities and power plants were severely damaged. In Basra and Baghdad, these attacks deprived the civil population of water for several days. In non-international armed conflicts (which constitute the majority of conflicts today) contamination of rivers, springs or irrigation canals as well as the destruction of water supplies endangers the life of people and it may provoke their displacement either within the national borders or in other States. Further, the importance of water in time of occupation cannot be neglected: the control over water resources can become a means to strengthen the occupier’s power over the territory. The ensuing complex problems are further worsened when occupation extends over a long period such as in the case of the occupation of Palestinian territories.

These examples illustrate that during armed conflicts water is at the same time a means of warfare, a target as well as a victim. Four main prohibitions established by international humanitarian law deal, directly or indirectly, with the protection of water in time of armed conflicts. They are:

- the ban on employing poison or poisonous weapons;
- the ban on destroying or seizing the enemy's property;
- the prohibition on destroying objects indispensable to the survival of the civilian population;
- the ban on attacking works or installations containing dangerous forces such as dams and dykes.

Apart from these rules, the provisions of the 1977 First Additional Protocol to the Geneva Conventions<sup>3</sup> dealing with the protection of the environment are also worth noting to ensure the protection of water resources. International humanitarian law safeguards water resources if this protection meets its objectives, namely the regulation of the conduct of hostilities and the safeguard of the civilian population. The resort to other sets of rules, such as those provided under international water and Human Rights law, may provide a more comprehensive protection to water resources during armed conflicts. In this context, it is argued that the recourse to other branches of international law can strengthen the status of water during armed conflicts.

## **1. International Humanitarian Law and the Protection of Water Resources and Installations**

Unlike peacetime legislation, the *ius in bello* contains few rules which relate directly to the protection of water. Nevertheless, access to and protection of water may well become problematic during a conflict. There are few studies dealing with the protection of water resources and water installations in times of armed conflict. The *Helsinki Rules on the Uses of the Waters of International Rivers*, adopted by the International Law Association (ILA) at its Helsinki Conference in 1966, contain only one provision (Article XX) which refers to problems arising from armed conflict and it is confined to the limited subject of navigation.<sup>4</sup> Realizing the lacuna in the legal protection of water in wartime, the ILA addressed the issue ten years later. Thus, during its fifty-

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<sup>3</sup> First Additional Protocol to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts of 1977, text available at [www.icrc.org](http://www.icrc.org)

<sup>4</sup> Article XX reads as follow: "In times of war, other armed conflict, or public emergency constituting a threat to the life of the State, a riparian State may take measures derogating from its obligations under this Chapter to the extent strictly required by the exigencies of the situation, provided that such measures are consistent with its other obligations under international law. The riparian State shall in any case facilitate navigation for humanitarian purpose". International Law Association, *Report of the Fifty-second Conference* held at Helsinki (14 August to 20 August 1966), 1967, p. 484.

seventh Conference held at Madrid in 1976, the ILA adopted a resolution on the protection of water resources and water installations in wartime.<sup>5</sup> One year later the adoption of the 1977 First and Second Additional Protocols to the 1949 Geneva Conventions provides with some rules explicitly devoted to water<sup>6</sup>.

*a) The ban on employing poison or poisoning weapons*

The first basic rule which may ensure the protection of water resources is the ban on employing poison or poisonous weapons. In 1588, Alberico Gentili in his book devoted to “De jure belli” claimed that the prohibition of poisoning water already was a well-established rule of international law. This ban was founded on the conviction that poison was prohibited because its clandestine and insidious character. Therefore this rule has been recognized as a customary rule for centuries before it was codified at The Hague Peace Conference in 1899 and 1907<sup>7</sup>.

However, with the technological developments of weapons, such as chemical, biological or nuclear weapons, there are a number of uncertainties about its interpretation. The use of certain type of weapons made water unfit for human consumption. In this respect, during the ILA conference in New Delhi in 1975, it was suggested that the prohibition of poisoning is too narrow and that prohibition should be extended to all measures which render water unusable for human consumption by whatever means<sup>8</sup>. This extension could rely on a general principle of international humanitarian law that is the principle of distinction between combatants and civilian population. From this perspective, all measures which render water resources unfit for human consumption should be declared illegal since they affect indiscriminately both armed forces and the civilian population.

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<sup>5</sup> International Law Association, *Report of the Fifty-seventh Conference* held at Madrid (30 August 1976 to 4 September 1976), 1978, p. xxxiv.

<sup>6</sup> See: First Additional Protocol to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts of 1977 (arts. 54 and 56); Second Additional Protocol to the Geneva Conventions of 12 August 1949 Relating to the Protection of Victims of Non-International Armed Conflicts of 1977 (arts.14 and 15).

<sup>7</sup> Article 23 (a) of the Convention (IV) respecting the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land. The Hague, 18 October 1907. See also: Article 16 of the 1863 Lieber Code; Article 13 of the 1874 Brussels Declaration, Article 8 of the Oxford Manual adopted by the Institute of International Law in 1880. Moreover, Article 8 of the Rome Statute of International Criminal Court considers the employ of poison or poisoned weapons as a war crime.

<sup>8</sup> According to the ILA all measures which render water unusable for human consumption by whatever means are illegal at least, *de lege ferenda* “in conformity with the rule no.7 of the 1969 Edinburgh resolution of the Institut de Droit International”. This rule prohibits “the use of all weapons which, by their nature, affect indiscriminately both military and non-military objects, or both armed forces and civilian population”. However this principle has been violated by the practice of many countries. S.Bogdanovic, *International Law of Water Resources. Contribution of the ILA (1954-2000)*, Kluwer Law, London, 2000, p.234.

*b) The Protection of Public and Private Property;*

Water may be part of either public or private property. In both cases, however, international humanitarian law protects water resources. Article 23(g) of the 1907 Hague Regulations states that it is forbidden "to destroy or seize the enemy's property, unless such destruction or seizure be imperatively demanded by the necessities of war"<sup>9</sup>. While this rule is applicable in international armed conflicts<sup>10</sup>, the regime of occupation provides more specific rules aiming to strengthen the protection of public and private property located in an occupied territory.

Given that during occupation, the occupant exercises a *de facto* authority for a certain period, the protection of private and public property is of particular relevance. The Hague Regulations contain more permissive rules in relation to public property than with private property. This regulation reflects the approach to economic organization prevailing at the time of the drafting of the instrument: in the nineteenth century, on the one hand private property was sacred and on the other, State involvement in economic activity was still limited.<sup>11</sup>

By classifying water resources as private property, any occupant action in relation to freshwater resources is subject to the requirements of Articles 46 and 52 of the Hague Regulations. According to Article 46(2) "private property may not be confiscated". Moreover, under Article 52, "requisitions" of private property that are not specifically suited to military use are subject to strict conditions. First, the purpose of the requisition must be to support the occupant's military forces actually engaged in the occupation. In other words, confiscation of property to be used by the occupant in its home territory is forbidden. Second, the occupant must ensure that the requisition does not exceed what the occupied country can bear: the occupant may not use the powers conferred by this provision in order to oppress economically the occupied territories. Finally, the occupant must pay compensation for requisitions otherwise authorized by Article 52. Hence, these rules strictly circumscribe the authority of an occupying power<sup>12</sup>.

While the individual right of water utilisation by wells located in private property is subject to Articles 46 and 52 of the Hague Regulations, the occupant's right of using water by international

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<sup>9</sup> See also: Charter of the International Military Tribunal of Nuremberg (Article 6 (b)). Moreover, Article 28 of The Hague Convention and Article 33 of the Convention (IV) relative to the Protection of Civilian Persons in Time of War. Geneva, 12 August 1949 (Fourth Geneva Convention) prohibit pillage.

<sup>10</sup> In non-international armed conflicts Article 3 of the 1977 Second Additional Protocol prohibit pillage.

<sup>11</sup> A. Cassese, "Powers and Duties of an Occupant in Relation to Land and Natural Resources", in E. Playfair (ed.) *International Law and the Administration of Occupied Territories*, Oxford Clarendon Press, Oxford, 1992, pp. 421-422.

<sup>12</sup> Concerning the requisitions, the Fourth Geneva Convention (art.55) confirms the rules established by the Hague Regulations. While the Hague text considers that the requisitions must be to support only the needs of the army of occupation, the Geneva Convention also includes those of the "administration personnel". At all events the occupying power's rights are clearly defined since it may not requisition supplies for use by its own population.

ivers, lakes or aquifers is limited by the provisions of international humanitarian law related to public property. In this context Article 55 of the Hague Regulations should be mentioned<sup>13</sup>. Although this provision affirms that the occupant can use public assets as “usufructuary” and it “must protect the capital”, it does not specify the purpose for which public property can be used by the occupant<sup>14</sup>. The question is whether or not public assets such as water resources may be used for any purpose whatsoever by the occupant provided only that it does not dissipate them. In accordance with customary international law as reflected in Article 31 of the 1969 Vienna Convention on the Law of Treaties “a treaty must be interpreted in good faith in accordance with the ordinary meaning to be given to its terms in their context and in the light of the treaty's object and purpose”.<sup>15</sup> Therefore, Article 55 has to be analysed in the overall context of the international law on occupation. The primary principle on which the law of occupation rests is that the occupant does not acquire any sovereign right over the territory, it merely exercise a *de facto* authority<sup>16</sup>. In exercising this authority the occupant must comply with two basic requirements: on the one hand, fulfilment of its military needs and, on the other, respect for the needs of the civilian population of the occupied territories. While military necessities in some instances may gain the upper hand, they should never result in total disregard for the interests and needs of the population. For these reasons, the use of water resources by an occupying power is clearly restricted .The occupant may only use freshwater resources for the purposes of the occupation itself but it is not allowed to promote its own economy pumping water into its home territory. Furthering national interests by pumping water into its own territory prolongs the time of occupation which under international humanitarian law is a transitory situation.

In this regard the US Legal Memorandum concerning the alleged Israeli right to develop new oil fields in Sinai affirmed that “unrestricted access to the use of resources (...) constitutes an incentives to territorial occupation”<sup>17</sup>.

### *c) The Protection of the Objects Indispensable to the Survival of the Civilian Population*

Article 54 of the First Additional Protocol deals explicitly with the protection of drinking water installations and supplies. Under the terms of this provision “It is prohibited to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as (...)

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<sup>13</sup> See also: Art.53 of the Hague Regulations and Art.53 of the Fourth Geneva Convention.

<sup>14</sup> Article 55 reads as follows: “The occupying State shall only be regarded as administrator and usufructuary of the public buildings, real property, forests and agricultural works belonging to the hostile State, and situated in the occupied country. It must protect the capital of these properties, and administer it according to the rules of usufruct”.

<sup>15</sup> Vienna Convention on the Laws of Treaties 1969.

<sup>16</sup> See: Art. 42 of the Hague Convention which reads as follows: Territory is considered occupied when it is actually placed under the authority of the hostile army.

<sup>17</sup> United States, State Department, Memorandum of Law on Israel’s Right to Develop New Oil Fields in Sinai and the Gulf of Suez, reprinted in *International Legal Materials*, Vol.16, 1977, pp.745-746.

drinking water installations and supplies and irrigation works, for the specific purpose of denying them for their sustenance value to the civilian population or to the adverse Party, whatever the motive, whether in order to starve out civilians, to cause them to move away, or for any other motive”.

Although this rule can be viewed as ensuring a large protection of water installations, this provision establishes in its paragraph 3 that the immunity of indispensable objects is lifted in cases where they serve as sustenance solely for members of the armed forces or as direct support for military action. Although some water installations could serve to sustain the armed forces, this prohibition does not seem to be a sufficient reason for depriving the population of water. This view is confirmed by the restriction contained in paragraph 1 of Article 54 which states that belligerents must refrain from acts which may be expected to reduce the civilian population to starvation or force them to move away.

*d) Protection of installations containing dangerous forces*

As noted above, water resources and installations can be a target as well as a weapon during armed conflicts. Poisoning water is an ancient method of warfare. In recent conflicts, dams have been used as military targets, almost always with disastrous consequences to the environment and human beings.

In view of the extremely serious effects which attacks on “works or installations containing dangerous forces” can have on the life and property of the civilian population, Article 56 of the First Additional Protocol forbids such attacks even if such targets are military objectives. However this protection ceases, at least in international armed conflicts, if the dams or dyke “is used for other than its normal function and in regular, significant and direct support of military operations and if such attack is the only feasible way to terminate such support”.<sup>18</sup> The language used in Article 56 of the First Additional Protocol indicates that the support given to military operations must be at the same time “regular, significant and direct”. In this context, it is interesting to note that the protection afforded to dams and dykes in non-international armed conflict is much stronger: Article 15 of the Second Additional Protocol of 1977 does not include an exception based on military necessity.<sup>19</sup>

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<sup>18</sup> Article 56 (2) of the 1977 First Additional Protocol.

<sup>19</sup> This unusual protection- stronger than that in international armed conflict- seems to be due to a last minute rewriting of the draft Protocol. W. Remans “Water and War”, *Humanitäres Völkerrecht, Informationsschriften*, No.1, 1995, p.8.

The review of the provisions related to the ban on employing poison, the protection of public and private property as well as of the rules concerning the protection of objects indispensable to the survival of the civilian population and the installations containing dangerous forces, shows that the legal protection accorded to water is not autonomous. International humanitarian law does not protect water resources as such. It only protects them if this protection meets its objectives, namely the regulation of warfare and the safeguarding of the civilian population. The provisions analysed above do not protect water specifically, but as one of man's basic needs, and they regulate its use as a weapon which can be directed against the civilian population. Other provisions of *ius in bello* can be applied to the safeguarding of water such as those protecting the natural environment.

## **2. International Humanitarian Law and the Protection of the Environment**

The use of a wider range of means and methods of warfare during the Vietnam War (such as the defoliants Agent Orange) as well as the rise of environmental consciousness at a global level, exemplified by the adoption of the 1972 Stockholm Declaration<sup>20</sup>, pushed the Diplomatic Conference charged with the drafting of the two Additional Protocols to the 1949 Geneva Conventions to include in its debate the protection of the environment during armed conflicts.

In this context, two provisions on environmental protection were included in the 1977 First Additional Protocol. These provisions show the growing concern that environmental devastation caused by war might jeopardize the life and health of future generations. In this regard, it should be observed that no provision was included in the 1977 Second Additional Protocol on Non-International Armed Conflicts on the protection of the environment. However, its protection can be ensured by peace time environmental legislation which continue to be applicable during internal conflicts as well as by general principles of international humanitarian law such as the principle of proportionality.

While Article 35 of the 1977 First Additional Protocol aims to protect the environment as such by stating that: "it is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment", Article 55 focuses on the survival of the civilian population<sup>21</sup>.

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<sup>20</sup> See Principle 26 of the Stockholm Declaration, reprinted in *International Legal Materials*, 1972, p.1416. Moreover, the United Nations Conference on the Environment and Development, although only marginally, included a principle on the protection of the environment in warfare. Principle 24 of the Rio Declaration. United Nations Conference on the Environment and Development, Rio de Janeiro, 1992, UN Doc. A/CONF. 151/26 (Vol. 1), Annex 1 (1992).

<sup>21</sup> Article 55 reads as follows: "Care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition of the use of methods or means of warfare which



The adjectives “widespread, long-term and severe” used in Articles 35 and 55 have not been defined in the Protocol. The International Committee of the Red Cross (ICRC) emphasized that “the question as to what constitutes (prohibited) “widespread, severe or long-term” damage and what is acceptable damage to the environment is open to interpretation”.<sup>22</sup> So far, international practice is very limited in relation to the definition of these criteria.

In 2000, the Report to the Prosecutor of the International Criminal Tribunal for the former Yugoslavia (ICTY Report), made by an expert Commission, assessed, *inter alia*, the damages caused to the environment by the NATO bombing campaign over Yugoslavia<sup>23</sup>. This report finds that the damages caused by the air campaign do not meet the triple cumulative threshold established by Article 35, namely of being “widespread, long-term and severe”. If one takes the factual findings of the Balkan Task Force established by the United Nations Environment Program (UNEP), this conclusion is probably unavoidable. Indeed, the study conducted by the UNEP concluded that the Kosovo conflict “has not caused an environmental catastrophe affecting the Balkans region as a whole”<sup>24</sup>.

In its assessment on the environmental damage, the Commission does not take into account only Articles 35 and 55 but it also analyses the principle of proportionality which prohibits military action in which the negative effects clearly outweigh the military gain. This principle is the usual test to assess the admissibility of collateral damage caused by attacks against military targets. The relation between environmental protection and the proportionality principle has already been underscored by the International Court of Justice (ICJ) in its advisory opinion on the *Legality of the Threat or the Use of Nuclear Weapons* where it affirmed that “States must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives”<sup>25</sup>.

The use of this principle could be used as a means to lower the difficult threshold of Articles 35 and 55 of First Additional Protocol. In particular, once established that collateral environmental damage was excessive in relation to military gain, it would also be unlawful even when not “widespread, long-lasting and severe.” Under this analysis, the environmental protection could be ensured by the

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are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population”.

<sup>22</sup> *Protection of the Natural Environment in Time of Armed Conflict, Contribution of the International Committee of the Red Cross to the Rio Conference*, June 1992.

<sup>23</sup> The Prosecutor of the International Criminal Tribunal for the former Yugoslavia had to deal with a number of communications requesting her to institute criminal proceeding against those responsible for the bombing campaign of NATO between March and June 1999. The Prosecutor established an expert commission to evaluate both the law and the facts in this respect. For the text of the report, see: <http://www.un.org/icty/pressreal/nato061300.htm#IVA1>

<sup>24</sup> For the text of the report, see: <http://www.grid.unep.ch/btf/final/finalreport.pdf>

<sup>25</sup> *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 8 July 1996, ICJ Reports (1996), par.30.

combined effect of the general provision limiting admissible collateral damage and the particular provision on environmental protection. Unfortunately, the ICTY report does not draw this conclusion. In its analysis, the Commission refers to Article 8 of the Rome Statute establishing the International Criminal Court. Under this Article causing environmental damage is a war crime if it goes, first, beyond, the threshold established by the triple cumulative conditions and, secondly, beyond what is permissible according to the proportionality principle. However, this interpretation should be accepted only in relation to the definition of a war crime and not for assessing the rules relating to environmental protection during armed conflicts<sup>26</sup>.

The *Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques* (hereafter ENMOD) adopted by the United General Assembly on 10 December 1976 may also protect the environment during armed conflicts<sup>27</sup>. The relation between the First Additional Protocol and the ENMOD Convention has been subject of debate among scholars. Some differences must be highlighted between the two texts. While the First Protocol is aimed at protecting the natural environment against any means or method of warfare, the goal of the ENMOD Convention is to prevent the use of environmental modification techniques. Moreover, the latter text prohibits both in time of war and peace any environmental modification which causes “widespread, long-lasting or severe” damage to another State<sup>28</sup>. This formula implies that it would be sufficient to fulfil one of the three conditions to fall under the prohibition. On the other hand, the 1977 Protocol Additional applies in wartime and Article 35 establishes the prohibition “to employ methods or means of warfare” which can cause “widespread, long-term and severe damage to the natural environment” which is a triple cumulative criteria.

### **3. Towards a Comprehensive Approach: The Recourse to other Norms for the Elaboration of a Complementary Protection**

Apart from the rules of international humanitarian law already mentioned, it is difficult to identify a proper and autonomous legal framework for protecting water during armed conflict. This is due to the diversity of situations in which water can be affected, but also because of the very manner in which it is treated in international humanitarian law. Water is taken into account by international humanitarian law only when it meets its basic objectives, namely the protection of the civilian

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<sup>26</sup> M. Bothe, “The Protection of the Civilian Population and NATO Bombing on Yugoslavia: Comments on a Report to the Prosecutor of the ICTY”, *European Journal of International Law*, 2001, vol.12., pp.531-532.

<sup>27</sup> *Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques*, reprinted in *The Laws of Armed Conflict, op. cit.* (note 7), p.163.

<sup>28</sup> In the light of Article 1, the States parties to the ENMOD Convention “undertake not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party”. Thus, this text specifically protects the environment and it prohibits “what is known as geophysical warfare, which implies the deliberate manipulation of natural processes and may trigger hurricanes, tidal waves, earthquakes, and rain or snow”

population and the regulation of the conduct of hostilities. Even in that perspective, it is viewed only in its capacity as one of man's basic needs, as a danger, or as part of the natural environment, but never autonomously. Although humanitarian law has always focused on the protection of persons and their property, the application of these rules plays an important part in safeguarding water resources during an armed conflict and during an occupation.

It becomes clear that a holistic approach is required in order to ensure an effective protection of water in times of armed conflicts. In particular, international Human Rights Law can strengthen the protection of water during armed conflicts. In this context, the General Comment on the Right to Water adopted in 2002 by the United Nations Committee on Social, Economic and Cultural Rights affirms the obligation for States to refrain "from limiting access to, or destroying water services and infrastructures as a punitive measure" during armed conflicts<sup>29</sup>. This statement points out the progressive convergence between international humanitarian law and human rights law which has also been recently confirmed by the ICJ in its advisory opinion on the *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*<sup>30</sup>.

The Advisory Opinion of the ICJ on the *Legality of the Threat or Use of Nuclear Weapons* recognized that "the environment is not an abstraction but represents the living space" of human beings.<sup>31</sup> The ICJ Advisory Opinion was an important step in the recognition of the great and very concrete significance of the environment. Furthermore, despite the ICJ considering that the objective of its advisory opinion was not to declare "whether the treaties relating to the protection of the environment are or not applicable during an armed conflict", some scholars and non-governmental international organizations have supported the principle of the continued relevance of environmental treaties during armed conflicts.<sup>32</sup>

The *United Nations Convention on the Law of Non-Navigational Uses of International Watercourses* (UN Watercourses Convention)<sup>33</sup> declares in its Article 29 that "international

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<sup>29</sup> Committee on Economic, Social and Cultural Rights, *General Comment n° 15 on the Right to Water*, 26 November 2002, E/C.12/2002/11. Text available at: [www.unhchr.ch](http://www.unhchr.ch)

<sup>30</sup> In its advisory opinion the ICJ points out that "the Court considers that the protection offered by human rights conventions does not cease in case of armed conflict, save through the effect of provisions for derogation of the kind to be found in Article 4 of the International Covenant on Civil and Political Rights. As regards the relationship between international humanitarian law and human rights law, there are thus three possible situations: some rights may be exclusively matters of international humanitarian law; others may be exclusively matters of human rights law; yet others may be matters of both these branches of international law. International Court of Justice, *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, 9 July 2004, text available at: [www.icj-cij.org](http://www.icj-cij.org)

<sup>31</sup> *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 8 July 1996, ICJ Reports (1996), para. 29.

<sup>32</sup> D. Momtaz, « Le recours à l'arme nucléaire et la protection de l'environnement : l'apport de la Cour Internationale de Justice », in L.Boisson de Chazournes and P.Sands (eds), *International Law, the International Court of Justice and Nuclear Weapons*, Cambridge University Press, Cambridge, 1999, p. 360. See also K. Mollard-Bannelier, *La protection de l'environnement en temps de conflit armé*, Pedone, Paris, 2001, pp. 266-279.

<sup>33</sup> The United Nations Convention on the Non-Navigational Uses of International Watercourses, reprinted in *International Legal Materials*, Vol.36, 1997, p.700.

watercourses and related installations (...) 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". According to this provision the relation between the UN Watercourse Convention and international humanitarian law is not totally clear. This seems to be particularly the case in comparison to Article VII of the ILA Resolution on Protection of Water Resources in Times of Armed Conflict which reads as follows: "The effect of the outbreak of war on the validity of treaties of parts thereof concerning the use of water resources should not be termination but only suspension. Such suspension should take place only when the purpose of the war or military necessity imperatively demand the suspension and when the minimum requirements of subsistence for the civil population are safeguarded."<sup>34</sup>

In its commentary to Article 29 the United Nations International Law Commission stresses, on the one hand, that in time of armed conflict the rules and principles of the *ius in bello* apply unaltered by the Convention, while, on the other, it is uncommented that "the obligation of watercourse States to protect and use international watercourses and related works in accordance with the Articles of the UN Watercourses Convention remains in effect during an armed conflict".<sup>35</sup>

The continued validity of water-related treaties after the outbreak of war is in many cases of vital importance for the protection of water resources and water installations and even for the health and survival of the civilian population, especially when these treaties concern the delivery of water for drinking purposes and for irrigation, or measures of flood control.

Certain environmental treaties, especially those protecting shared natural resources -SNR- (such as watercourses, lakes and groundwaters), may be sufficiently similar to Human Rights conventions. The main characteristic of the Human Rights treaties is that they seek to protect a common good in the interest of the community of States as a whole rather than the national interest of the State parties. This feature of Human Rights conventions is the main reason why State parties cannot suspend or terminate them in wartime. To the extent that the obligations established by water treaties have the aim of protecting environmental goods *per se* rather than to further the interests of the State parties concerned, they bind belligerent States. Recent water treaties such as the Danube Convention, the Mekong Treaty or the Senegal Water Charter point out clearly that their aim is to

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<sup>34</sup> Resolution in: International Law Association, *Report of the Fifty-Seventh Conference* held at Madrid (30 August to 4 September 1976), 1978, p.xxxiv. The effect of the outbreak of war on the validity of treaties has been also treated by scientific associations in the first half of the last century, i.e. by the Institute of International Law (1912) and the Harvard Research Group on the Law of Treaties (1935).

<sup>35</sup> International Law Commission, *Report of the ILC to the General Assembly on the Work of its Forty-Sixth Session*, Vol. II, Part II, 1994, p.131.

serve the protection of the watercourse environment itself rather than the national interest of the State parties.

### **Final Remarks**

Much has been written about the supposed role of water as a driving force for conflicts, especially in the Middle East. There is no question that the unusual qualities of water as a resource have made it a frequent object of international disputes. However, even with impending water shortages, States are more likely to devise effective and efficient arrangements for sharing and cooperatively managing the water on which they all depend, than to be driven to war over water.<sup>36</sup>

During armed conflict, water sometimes becomes a target or is even used as a means of warfare. In either case, so long as water is a civilian object and indispensable to the survival of the population, warfare *against* or *by means of* water is prohibited by the principles and rules of humanitarian law.

General principles of international humanitarian law such as the principle of proportionality and the provisions of *ius in bello* regarding the protection of the environment may prove to be of great help in ascertaining the rights and obligations of belligerents and an occupant in relation to water resources. Although humanitarian law has always focused on the protection of persons and their property, the application of these rules plays an important part in safeguarding water resources during an armed conflict and an occupation.

In conclusion, this overview of some of the issues related to water and war shed some light on the main issues, which are at stake. While one cannot deny that norms exist to protect and cover the manifold functions of water during an armed conflict, these are limited. The use of other sets of rules such as those provided by Human Rights Law and international water law might contribute to the strengthening of the protection of water.

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<sup>36</sup> This is borne out in the documents which aim to provide a framework for peace in the Middle East: Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip signed at Washington on 28 September 1995, (Article 40, Annex III) reprinted in *International Legal Materials*, Vol. XXXVI, 1997, p.551 (Article 40, Annex III); Israel-Jordan Peace Treaty of Peace between Israel and Jordan signed at Wadi Araba on 16 October 1994 (Article 6 and Annex II) reprinted in *International Legal Materials*, Vol. XXXIV, 1995, p.46.