

Protection of Water resources under Shariah and International Humanitarian Law: A Comparative Study

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Abstract

Water has been used as a strategic target during armed conflict. Even when water facilities are not targeted they are among the first casualties of the violence as many armed conflicts continue to claim destruction and contamination of water resources.

In its wider perspective, environment has had greater concern in both IHL and Islam. By virtue of his position as Allah's vicegerent on earth, man was charged with the responsibility of preserving the environment and its constituents, not as the owner but as a trustee. Water being a basic necessity on which life of every living thing rests, man is required to preserve it and desist from any attempt that leads to its destruction or contamination. Water, as the principle element of life was mentioned **Qur'an 16: 65** where it stated that "*And God sends down rain from the skies, and gives therewith life to the earth after its death*". Its significance was further emphasized in **Qur'an 21:30** as the beginning of life of everything.

However, despite the IHL and Islamic provisions on preservation of water resources, water sources have continued to be a direct or indirect targets during armed conflicts. Conventional means and methods of warfare have destroyed water resources and facilities in such a way that has led to great suffering of human and other living creatures.

This article illuminates the IHL and Islamic law positions on protection of water resources during the armed conflict and presents the guarantees laid down by Islamic law to protect water resources from destruction and contamination.

Technical terms: *environment, Islamic law, Islamic jurisprudence, armed conflict.*

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Introduction

Historically, the strategic importance of controlling water sources during an armed conflict is not a particularly new phenomenon. In the first armed conflict between the Prophet Muhammad peace be upon him and the Meccans in the battle of Badr, the Muslim troops took control of the water sources with an objective of guaranteeing access to it and avoiding the enemy's use of this source as a war tactic.¹

The toll of warfare today reaches far beyond human suffering; the conflicts cause extensive destruction and derogation of the environment which in turn threatens the lives and livelihoods of people in that particular war zone and beyond. Since 1992, UN has conducted a number of post-conflict assessments to examine the effect of war on environment. The findings have indicated that armed conflicts cause significant harm to the environment and the communities that depend on natural resources².

This article presents the IHL and Islamic perspectives on protection of water sources during an armed conflict by defining water resources, and enumerates the Islamic approach to protection of water resources during peaceful times and during armed conflict.

Impact of armed conflict on water facilities and resources

Belligerents have not overlooked the fact that water is the source of all life, and without it nothing can survive. Throughout the ages human dependence on water for survival has been exploited by strategic decisions to attack enemy hydraulic installations, either through the physical destruction of the facilities or by making the facilities unusable through poisoning. The International Committee of the Red Cross and other organizations have documented a number of cases where armed conflict has affected water facilities and resources, thus leading to human suffering. Some of these cases include:

- a. In the 1939-1942 armed conflict between Japan and China, Japanese chemical and biological weapons activities reportedly included tests by "Unit 731" against military and civilian targets by lacing water wells and reservoirs with typhoid and other pathogens.³
- b. In the 1944 armed conflict which involved Germany, Italy, Britain and the United States, German forces used waters from the Isoletta Dam (Liri River) in January and February to successfully destroy

¹ Assiba'i Mustafa, *Ass i ratu annabawiyah: Durūs wa' ibar* (The prophet's history, lessons and importance), Al-Maktaba al- Islamī, 1985, page 81.

² www.un.org/zh/events/environmentalconflictday/pdfs/int.

³ Peter H. Gleick, *The World's water, information on the world's Fresh Water, Water Conflict Chronology*, 2003.

- British assault forces crossing the Garigliano River (downstream of Liri River).¹
- c. In 1960s, the armed conflict which involved North Vietnam and the United States, irrigation water supply systems in North Vietnam were bombed during the war and 661 sections of dikes were damaged or destroyed.²
 - d. In the 1967 armed conflict between Israel and Syria, Israel destroyed the Arab diversion works on the Jordan River headwater.³
 - e. In 1992, in the armed conflict which involved the Serbian siege of Sarajevo, Bosnia and Herzegovina, included a cut off of all electrical power and the water feeding the city from the surrounding mountains.⁴
 - f. The Somalia civil war that began in 1991 contributed to a complete failure of the water supply system. By mid of 1995 public water supply had been lost and this led to "privatization" of water delivery, where local entrepreneurs dug wells and delivered water by donkey cart to be sold directly to customers. The scarcity of water sources led to cholera epidemics that affected 55,000 people and led poor sanitation, etc.⁵
 - g. In 1999, the Serbs contaminated water supplies by disposing of bodies of Kosovar Albanians in local wells.⁶
 - h. In Iraq, the strikes during the Gulf war directed towards power supply systems resulted in a significant deterioration of drinking water supplies and severe consequences for public health.
 - i. More recently, the conflict in Lebanon between Israel and Hezbollah caused severe damage to the civilian freshwater supply. The bombings targeted the electrical generators, which in turn affected the output of the water network. Moreover, targeted bombing of the bridges inadvertently broke the water network running under the bridges.⁷

The evaluation of the impact of armed conflict on water resources was made in a symposium held in Montreux in 1994, in which experts asserted that the consequences attributed to destruction of water resources in an armed conflict in their various forms killed as many people as bullets and bombs.⁸

Protection of Water facilities under IHL

The main purpose of IHL is to protect human population from unjustified suffering. In order to attain this purpose, water sources have to be protected as well because human population is dependent upon them for survival.

Protection of water and its related facilities is traced from general and particular rules developed in IHL sources, mainly the Hague and Geneva Conventions.

IHL prohibits the use of means and methods of warfare designed and intended to inflict unnecessary suffering on the victims. Protocol I defines military objects as objects which by their nature, location, purpose, or use make an effective contribution to military advantage.⁹ By virtue of this definition, water resources appear to be a civilian object benefiting from a general immunity from attack during armed conflict.¹⁰

The Geneva law generally prohibit willful causing of great suffering or serious injury to body or health. The conventions prohibit extensive destruction and appropriation of property not justified by military necessity and carried out unlawfully and wantonly¹¹

Article 1 of the United Nations Convention provides for the prohibition of military or any other hostile Use of Environmental modification Techniques (ENMOD), Rules 43,44,45, of the Customary international Humanitarian Law among others.

The law of the Hague also provides that the right of belligerents to adopt means of injuring the enemy is not unlimited¹² In addition, Article 23(g) of the 1907 Convention states that it is forbidden to destroy or seize the

¹ *ibid.*

² *ibid.*

³ *ibid.*

⁴ *ibid.*

⁵ Fredrick Lorenz, the protection of water facilities under international law, PCCP Publications 2000-1- 2003, page. 9

⁶ *ibid.*

⁷ Nikolai Jorgenson, The Protection of Fresh Water During Armed Conflict, Journal of International Law and International Relations, Vol 3(2) page. 2.

⁸ Water in Armed Conflicts: 'International Symposium on Water in Armed Conflicts', Montreux, November 21-23, ICRC News, November 24, 1994, in Marco Sassòli, Antoine de Bouvier, *How Does Law Protect in War? Cases, Documents, and Teaching Materials on Contemporary Practice in International Humanitarian Law* (Geneva: ICRC publication, 1999) at 458-460..

⁹ PROTOCOL I: 52 (2)

¹⁰ Nicolai Jorgenson, Protection of fresh water under armed conflict, journal of international law and international relations, Vol.3(2), page: 66.

¹¹ Art. 51 and 52 Protocol I

¹² Hague convention No. IV Respecting the laws and customs of war on Land, art. 22. *Ibid.*, art 23 (g)

enemy's property, unless ... imperatively demanded by the necessities of war".

Though the above provisions do not expressly mention water or water facilities, they are protected under these provisions because destruction of water resources in many cases is a result of an indiscriminate use of weapons which are not demanded by the necessities of war.

In a specific way, In addition to that, Article 35(3) of Protocol I prohibits the use of means and methods of warfare which are intended or expected to cause 'wide spread, long-term and severe damage to the natural environment.' This provision protects natural resources in every form in nature.

Article 55 of Protocol I is more articulate and entirely devoted to the protection of environment. It states that "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 are intended or may be expected to cause such damage to the natural environment and thereby prejudice the health or survival of the population. It further states "Attacks against the natural environment by way of reprisals are prohibited".

Although the above provisions do not mention water directly, it can be inferred that water, which is an integral part of the environment, is afforded protection under these rules as well as all rules that have been established to protect the environment.

Protection of water is also derived from the fundamental principles of customary international law principles of humanity, discrimination, proportionality and military necessity. The principle of humanity for instance proscribes the use of means of warfare which cause unnecessary suffering not justified by legitimate military objectives. Such means like poisoning of water sources, destruction of water bodies are prohibited by this principle. In the same respect, the principle of discrimination requires the use of means and methods of warfare that distinguish between military and civilian targets. Water sources are therefore part of the civilian objects which should be spared from attack.

In 1995, Australia and New Zealand requested examination by the ICJ of a situation relating to legality of nuclear testing by France in the Pacific Ocean. Before ultimately dismissing the case as moot due to France's voluntary cessation of its activities, the Court issued interim relief. It is possible that the granting of interim relief was based on recognition of the plaintiffs' right to environmental protection.

On 29th April 1999, Federal Republic of Yugoslavia filed complaints before the ICJ against the ten countries involved in the North Atlantic Treaty Organization (NATO) bombing campaign that year¹. In its application, the Federal Republic of Yugoslavia contended that the states, inter alia, had: (i) by taking part in bombing of oil refineries and chemical plants, acted in breach of the IHL obligation not to cause considerable environmental damage; (ii) by taking part in the use of weapons containing depleted Uranium, acted in breach of the obligation not to use prohibited weapons and not to cause far-reaching health and environmental damage².

In modern armed conflicts, even where 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 water production system is sometimes enough to paralyze the system as a whole. If repair works is held up because of continuing hostilities or for other reasons, such as shortage of spare parts or inadequate or poor maintenance and cleaning procedures, there is an obvious and considerable risk of contamination, shortage or epidemics³.

Article 29 of the convention on the law relating to the non-navigational uses of international watercourses⁴ it 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".

The law on water resources is expressly provided in *the Berlin rules*⁵ ***Article 50 on rendering water unfit for use***, it provides that ***"combatants shall not poison or render otherwise unfit for human consumption water indispensable for the health and survival of the civilian population"***.

Prohibition of targeting waters or water installations is provided for under *Article 51* it provides that 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.

In conclusion the general opinion is that violations of international humanitarian law are not due to the inadequacy of its rules. Rather, they stem from an unwillingness to respect the rules, from insufficient means to

¹ Request for examination of the situation in Accordance with paragraph 3 of the ICJ judgment of 20 December 1997 in the nuclear Tests (New Zealand v France) case, ICJ 288, 22 September 1995.

² The former Republic of Yugoslavia could not file a case directly against NATO since ICJ only has jurisdiction over nations. The ten nations involved were: Belgium, Canada, France, Germany, Italy, Netherlands, Portugal, Spain, United Kingdom and United States. ICJ Press release, May 2001.

³ Zemmali Aneur, "dying for water", in Forum. War and water, ICRC, Geneva, 1998, pp31-35.

⁴ <http://www.un.org>, adopted by the General Assembly of the United Nations in 1997.

⁵ Berlin Rules on water Resources adopted by resolution no.2/2003+1 of the 71st Conference of the international Law Association, held in Berlin, Germany, 16-21 August 2003+1.

enforce them, from uncertainty as to their application in some circumstances and from a lack of awareness of them on the part of political leaders, commanders, combatants and the general public.

The Islamic Position on Protection of Water Sources during an Armed Conflict

Protection of water sources during armed conflict is traced from both general and specific provisions of Islamic law.

Generally, Qur'an prohibited destruction of crops and cattle which are part of the natural environment. Qur'an 2:204-205 is to the effect that *"And of mankind there is he whose speech may please you (O Muhammad Peace be upon him), in this worldly life, and he calls Allah to witness as to that which is in his heart yet he is the most quarrelsome of the opponents. And when he turns away (from you O Muhammad peace be upon him) his effort in the land is to make mischief therein and to destroy the crops and the cattle, and Allah likes not mischief"*.

Al-rāzī, a renowned Qur'an commentator narrated that the circumstances which led to the revelation of the above verse were in reference to a man known as Al-Akhnas who pretended to be on the side of the Muslim army while preparing for the first armed confrontation between Prophet Muhammad's army and the pagans of Mecca. Prior to the beginning of the fight, Al-Akhnas, addressed fighters from the tribe of Banu Zuhra and convinced them to escape from the battle field in order to frustrate the efforts of the Muslim army. A total of 300 men escaped and Al-Akhnas went on to set ablaze on plantations and killing camels. The above verse was revealed to condemn this act.

There are two major legal lessons derived from the above Qur'anic verse:

- i. Crops and animals are significant components of the natural environment which by law shouldn't be attacked especially during armed conflict.
- ii. The lives of crops and animals are dependent on water availability and thus any attempt to destroy water is an indirect attempt to cause tremendous suffering to the civilian population. Therefore prohibition of destruction of water resources is by greater reason due to the principle of Islamic jurisprudence which states that *"When an obligatory requirement cannot be achieved except through another requirement, the second requirement becomes obligatory"*. In this case, Qur'an prohibits destruction of crops and animals and since their survival is directly linked to abundance of water supply, protection of water sources is obligatory by greater reason.

In a specific way, the Prophet's war conduct exhibited the humanitarian practice in armed conflict. He changed the traditional warfare which was marred by indiscriminate bloodshed, plunder, oppression, revenge, destruction of habitats and buildings, assault and abuse of women, destruction of crops and vegetation, etc.¹

His instructions to the army commanders didn't miss the urge to spare the natural environment. Ali, the fourth caliph of the prophet reported that the prophet used to say whenever he was flagging off an army *"Go in the name of Allah, kill not a woman, a child or an old man, do not sink down a water source, do not cut down any tree, except the one which prevents you from fighting or obstructing between you and the enemy..."*² These instructions are clear on prohibition of destruction of water source by sinking which was the prevailing method of destroying water. By analogical deduction, all contemporary methods which involve destruction of water resources are prohibited.

In the same regard, Abubakar, the first Caliph of the prophet instructed Usama bin Zaid who commanded the Muslim army to Syria by saying *"I prescribe ten commandments: do not perfidy, don't be excessive (in attack), do not cheat, do not kill a woman, a child or an old man, do not cut down fruitful trees, do not destroy inhabited areas, do not slaughter any sheep, cow, or camel except for food, do not burn date palms..."*³

The above injunctions are the leading provisions in the protection of the environment, especially water sources. However, it is observed that, apart from the above instructions, Islamic law did not provide for many specific provisions on protection of water during armed conflict. Instead, it provided for safeguards to water sources which have to be strictly adhered to during peaceful times. The great assumption is that once the culture of water protection is grown and maintained in human minds during peaceful times, that spirit shall subsist during armed conflict where the need for water is dire due to war burdens aggravated by displacements, killing, limited movements etc.

Water safeguards during peaceful times

Islamic law provides for a number of significant safeguards for water protection. As earlier noted, once these safeguards are strictly adhered to, they shall build a culture of water protection and preservation which shall be

¹ Al-Mubārakafū ri, The Sealed Nector, Maktabat Markaz a ddāwa, page. 357.

² Al-bayhaqī, Sunan Al-bayhaqī, Vol. 9, pp. 154, Hadith No. 17934, Dārul- kutub al-'ilmiyyah, Beirut , 2003

³ Malik bin Anas, Al-Muatta, Vol. I, pp 356, Hadith No. 917, Muassasat Alrisālat, 1412 A.

carried on even during armed conflict where water need is dire. These safeguards include:

a. Emphasizing the significance of water

The term water has been mentioned 63 times in the Qur'an. Water is the primary element that existed even before the heavens and the earth did. Qur'an 11:7 provides that "*And it is He who created the heavens and the earth in six days, and His throne was upon water*". Besides, Islam ascribes the most sacred qualities to water as the element that starts the cycle of life and a substance from which Allah created man. Qur'an 21:30 provides that "*And we have made from water every living thing...*" while 25:54 states "*And it is He who has created man from water, and has appointed for him kindred by blood, and kindred by marriage...*"

Such significance should appeal to human mind in all situations that the substance from which he was created and on which sustenance of his life is based should be protected no matter whether it peaceful times or armed conflict.

b. Declaration of Universe Right to Access to Water

The above significance of water was reiterated by the prophet when he declared a universal right to access water. Every living species on earth have a right to water. This declaration was made in a hadith which states that "*People are partners in three things: water, herbage and fire*". It is from this provision that Muslim scholars concluded that water cannot be privately owned in its natural state because it is considered common property to all living creatures.

Restrictions on common use increase with the growing scarcity but possessors of water can enjoy usufruct rights and should not withhold water that is surplus to their needs. For instance, farmers in whose territory water bodies are found, have the right to a fair share of these bodies but should not withhold it from other people's access and use because they also have similar needs for irrigation and livestock.

The implication to this principle is that water access is a right of every living thing and therefore its usage should be in such a way that caters for the access and benefit of other stakeholders.

Destruction of water sources is a great abuse of this natural environment because the effect of all means of destruction is precarious not only to human beings but even to other living creatures and plantations.

c. Prohibition of water wastage and misuse

The above universal right of access to water sources doesn't grant unlimited freedom for abuse or improper use of water, instead, it implies proper and sparing use of water in such a way that ensures its preservation for other users and next generations. There are a number of kinds of improper use of water that was prohibited by Islam. The major ones are two:

- i. **Contamination.** Islamic law prohibits contamination of water bodies through uncivilized means of urination, pollution, poisoning, etc. Abu Huraira reported that the prophet (peace be upon him) prohibited urination in stagnant water.¹ The rationale of this prohibition was based on the fact that both man and animals may deliberately or inadvertently get into contact with such contaminated water and cause water-borne diseases. If urination in stagnant water as a civil and less effective way was prohibited, it is by greater reason that destruction and contamination by explosives and bombings whose effect is of a greater suffering to human beings and animals is prohibited by great reason.
- ii. **Extravagance.** Qur'an 7:31 prohibits extravagance in foodstuffs. It states "*And eat and drink but waste not by extravagance, certainly He (Allah) likes not Al-musrifin (those who waste by extravagance)*". In a specific way, extravagance in using water whether by private or public use and whether water is scarce or abundant is forbidden. When the prophet (SAW) saw Sa'd performing ablution he said "*What is this? You are wasting water. Sa'd replied: can there be wastefulness while performing ablution? The prophet (SAW) replied: "Yes even if you perform it in a flowing river"*² The implication is if extravagance, whose only effect is on decrease on water abundance is prohibited, other means of wastage which involve exposing human and other livings' lives to danger are prohibited by greater reason.

d. Emphasizing the Priority Use of Water

Qur'an 40:18 indicated that water supply is fixed. It states that "*And we sent down from the sky water (rain) in (due) measure, and we gave it lodging in the earth, and verily, we are able to take it away*". This implies priority use of the available water. This provision calls for good management of water sources because supplies cannot be increased indefinitely. The prophet lived a practical example when he used to perform ablution with one *mudd* (approximately two thirds of a litre) and used to take a bath equal to 2-3 and half litres.³ Despite the purification requirement before practicing Islamic rituals, the prophet used as little water as he can to save it for other uses.

¹ Sahih Bukhārī, Vol. 1:93, Hadith No. 236.

² Ibn Mājah, Sunan Ibn Mājah, Vol. 1:147, hadith No. 425.

³ Annasaee, Sunan Annasaee, Vol. 1:179, hadith No.346.

Besides, in case of failure to attend to all necessities in which water is essentially needed for either religious purification or human or animal consumption, the later takes precedence over the former as it is prescribed in the use of dry ablution (*tayammum*).

Conclusion

Water is an essential element of the natural environment on which other ingredients owe their existence and survival. Both provisions of IHL and Islam are clear on protection of the natural environment specifically water due to the universal need of this vital resource. It is unfortunate however, that despite the presence of such clear provisions, and man's need for water and its related benefits, belligerents continue to use water sources as a military objective with which they can attain an advantage over the adversary. Water is needed in the situation of peace and its need arise during armed conflict in which displacements, loss of lives and limited movements in search of safe zones is the order of the day.

Recommendations

In order to protect the natural environment and specifically water sources, the researcher recommends the following:

- a. Raising public awareness on the significance of water and the obligation of each individual to safeguard it during peace and war times.
- b. Use of religious clerics to emphasize the significance of water protection among belligerents.
- c. Enact specific rules governing protection of water resources and stating serious punishments for breach of those rules.

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