MANAGING BLUE GOLD: A COMPARATIVE STUDY OF ISLAMIC LAW AND INTERNATIONAL WATER LAW

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INTRODUCTION

In the words of Professor Louis Henkin from Columbia Law School: 'Almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time.'

International law is a decentralised legal system based on state consent (in the positivists' view) where compliance is primarily voluntary. States comply with principles of international law governing transboundary water management because they view compliance to be in their best interest. However, once they have consented to be bound by a particular treaty or failed to become a 'persistent objector' to a particular rule of international customary law, compliance becomes compulsory. This is not, however, the case with Islamic law; it enjoys the strongest enforcement guarantees and compliance is compulsory. Islamic law is a unique centralised legal system where Muslims take the rules from the *Quran, Hadiths, Ijma* and *Qeyas/Aql*.

The difficulty with respect to Islamic water law is to identify the rules directly related to transboundary water management. This is because, first, Islamic water law, for historical reasons, has primarily focused on water management relating to small-scale individual uses, and transboundary issues have not been discussed much in the Islamic legal context. Secondly, Islamic law (at least in theory) does not recognise national boundaries and Islam considers the whole world as one nation.[2] The only imaginary boundary recognised in Islam is the line distinguishing Muslim and non-Muslim territories. Otherwise, all Muslims living in any part of the world belong to Islamic *Umah* (nation). Thus, there are very few rules, if any, in the Islamic legal sources that directly regulate transboundary rivers. This research therefore illuminates key doctrines in Islamic law and suggests how they might be reflected into the current international water context.

The predominant Islamic water law doctrine of 'surplus water', if applied to transboundary rivers, seems to favour upstream states in a successive river basin. At the same time, the *la zarar wa la zeraara fil islam* – the Islamic 'no harm' rule as well as the 'no one goes thirsty' rule – arguably favours downstream states. This rule also has bearing on 'vital human needs' which are to be given 'special regard' under international law for transboundary water resources (hereafter referred to as 'international water law').[3]

Further, under another Islamic rule, called *Anha–e A'mmah'* [the public rivers] rule, the water flowing in large or 'significant'[4] rivers, lakes, aquifers, snowmelt water, rainfall, precipitation, snowcaps and glaciers are in their natural state and thus common to all. Such waters cannot be owned privately unless the owner invests money and labour to collect or divert such waters. Similarly, under international law, transboundary rivers are considered as shared resources and none of the riparian states can claim sole ownership of such resources. Uses by one country to claim water by investing time, money, labour and resources to collect and divert the water as permitted under international law are subject to the principle of equitable and reasonable utilisation.

Most transboundary rivers associated with Islamic countries tend to be large or 'significant'. Consequently, the rules discussed above put Islamic water law in a seemingly similar situation to international water law. It has been argued on the one hand that the doctrine of 'equitable and reasonable' utilisation under Article 5 of the United Nations Convention on Non-Navigational Uses of International Watercourses (1997 UN Watercourses Convention)[5] favours upstream states. On the other hand, others have expressed the view the 'no significant harm' rule under Article 7 of the Convention favours downstream states.[6]

Yet, the 'surplus water' and the 'no harm' rules under Islamic law will only apply to transboundary rivers indirectly and only if interpreted so by Islamic scholars, because the Islamic rules demanding compulsory compliance (the *Quran, Hadith, Ijma* and *Qeyas/Aql*) fail directly to address transboundary water management among states.[7] Instead, Islamic law refers the question

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2 Verse 92 of Surat Al Anbiya of the *Quran* (Muslims' Holy Book) is interpreted to be the underlying provision for the so-called 'Islamic Nation' concept.

3 Convention on the Law of Non-Navigational Uses of International Watercourses art 10 UN Doc A/RES/51/299 (New York, 21 May 1997).

4 'Significant' in this context is used to indicate that multiple people depend on these water bodies, which can be the case also for relatively small or medium-sized rivers and other water bodies.

5 Convention on the Law of Non-Navigational Uses of International Watercourses (n 3).

6 See J Dellapenna 'Rivers as legal structures: the examples of the Jordan and the Nile' (1996) 36 *Natural Resources Journal* 217, 236–50; P Wouters 'An assessment of recent developments in international watercourse law through the prism of the substantive rules governing use allocation' (1996) 36 *Natural Resources Journal* 417; A Utton 'Which rule should prevail in international water disputes: that of reasonableness or that of no harm?' (1996) 36 *Natural Resources Journal* 635.

7 As referred to above, Islamic law is not based the concepts of states and territoriality.

to local, regional and international customs and, at times, to the best judgment (wisdom) of the parties involved (cooperation).

This approach is consistent with principles for transboundary water resources management under international law. International water law applies to all riparian countries equally. The principle of equitable and reasonable utilisation protects downstream rights in the same manner as it protects those of upstream states. Equally, the 'no harm' principle protects upstream states as well. In developing water resources, downstream states have to consider the two-way street of harm, namely significant downstream water development and use may harm upstream states by foreclosing future uses.[8] The drafters of the 1997 UN Watercourses Convention deliberately struck a balance between these two principles in the Convention's text. Additionally, the Convention puts emphasis on the principle of cooperation which encourages the states concerned to find a solution acceptable to all.

THE IMPORTANCE OF WATER

No doubt, water is one of the most important substances in all cultures, religions, countries and communities in the world. All life depends on it. Throughout the history of human civilisation, writers, poets, novelists, kings, scholars, philosophers, geologists, scientists and people from all walks of life have been inspired by water. Civilisations began next to rivers. Empires and kings have fought and reconciled over water. Water is the noblest and most necessary substance, and at the same time turns into a creature of destructive force when it causes floods, or when it is absent during drought periods. Thus, water can be both a life-giver and a life-taker: 'Water is a scarce and finite resource with no substitute, and upon which the very existence of life on earth depends'[9] or, as others have put it: 'Next to God there is water'.[10]

Similarly, in Islamic teaching and culture, water is regarded as a very precious and important substance. The word 'water' is mentioned in the *Quran* – the first source of Islamic law – 63 times: 59 times in singular form and four times as other derivatives. The words 'river' and 'rivers' are used in the *Quran* 54 times and the phrase 'drinking water' 39 times. In the *Quran* water is regarded as the source of life and a gift of God. Human beings are called the stewards of such a precious and life-giving resource.[11] Several verses of the *Quran* talk about water as the source of life. For example, Sura *Anbiya*/30 reads as follows: 'Have not those who disbelieve known that the heavens and the earth were of one piece, then we parted them, and we made every living thing of water? Will they not then believe?'[12] And there are other verses in the *Quran* that talk about water and its importance.[13]

Tradition/*Hadith* (Sayings of the Prophet) – the second source of Islamic law – equally refers to the importance of water and the way it should be treated and used in several places. For example, this *Hadith*: 'He who withholds water in order to prevent the use of pasture, God withholds from him his mercy on the Day of Resurrection, [and] excess in the use of water is forbidden even if you have the resources of a whole river, [and] the surplus of a well must not be withheld'.[14]

Followers of Islamic teachings consider Islamic Sharia guiding principles as the only path to salvation and regard these teachings as 'divine' rules imposed on the faithful of Islam. Islamic Sharia law is not national law created by states but rather a universal/regional law. Therefore, its guiding principles are presumed to enjoy a very strong religious enforcement mechanism, not only in Islamic countries where Sharia law is the national legal order, but also overall by Muslims as individuals.

Water is so important in Islamic teachings that even Islamic Sharia law borrows its name from this substance. The word *Sharia* in its most generic sense means a moral path to salvation. In another sense, *Sharia* means the path to access pure drinking water. That is why some Islamic scholars argue that, historically, water has been central to Islamic Sharia law despite the fact that hard-and-fast principles of Islamic water law are very few.[15]

In summary, given the importance of water in general and the Islamic tradition, it is therefore not surprising that both Islamic guiding principles and international water law place a strong emphasis on the importance of water as a source of life and its proper and sustainable use.

SOURCES OF WATER LAW

Sources of Islamic law

Understanding Islamic water law would be very difficult without discussing and understanding the nature and sources of Islamic law, because these are very different from what we think of as law in the contemporary Western sense of the term. Most people in Western countries think of Islamic law as a legal system with certain features and characteristics that might be very different from their own legal systems – or enacted by legislators. The reality is that this system is very different from other legal systems in the sense that it is a 'divine' legal system.

The truth is that Islamic law is not what we think of as the law enacted by a legislature. Islamic law in its conventional sense is a set of rules crafted by God and sent to the Prophet so that he could pass it on to human beings. That is why, in the Islamic law context, the Prophet is not a

8 See S Salman 'Downstream riparians can also harm upstream riparians: the concept of foreclosure of future uses' (2010) 34 *Water International* 350; S McCaffrey *The Law of International Watercourses: Non-Navigational Uses* (2nd edn Oxford University Press 2007) 474 ff; S McCaffrey 'Some developments in the law of international watercourses' in M Kohen (ed) *Promoting Justice, Human Rights and Conflict Resolution through International Law: Liber Amicorum Lucius Caflisch* (Martinus Nijhoff 2007) 785–91.

9 S M A Salman and D Bradlow, *Regulatory Frameworks for Water Resources Management* (World Bank 2006) ix.

10 *The Cadillac Desert 1* (Mulholland's Dream documentary movie) https://www.youtube.com/watch?v=hkbebOhnCjA.

11 J W Dellapenna and J Gupta *The Evolution of the Law and Politics of Water* (1st edn Springer 2009) 40.

12 *Quran*, Anbiya/30, translation by Pickthall, taken from the *Quranic* Arabic Corpus, an annotated linguistic resource for the *Holy Quran* website http://corpus.quran.com/translation.jsp?chapter=21&verse=30.

13 See *Sura Al molk*/30, *Kahf*/41, Jinn/16, *Morsalaat*/27, *Waqiya*/70/68-69, *Hajj*/5, *Alnaml*/60, *Baqara*/22, *Nahl*/10, *Zokhrof*/11, *Al Anaa'm*/99, *Qaaf*/9-10, *Anfaal*/11, *Forqaan*/48, *Momenoon*/18, *Zemar*/2, and *AlRa'ad*/17.

14 Dellapenna and Gupta (n 11) quoting Bukhari 1983, v3, bk 40: 543–44; ibn Qudama 1969, 4: 61–63; Mawardi 1983; 158.

15 Dellepena and Gupta (n 9).

lawmaker, but is a 'messenger' who passes God's messages to human beings. The Arabic word *rasool* as well as the Persian word *payamber* that translate as 'Prophet' in English, both mean the 'messenger' and are frequently used in the *Quran* to refer to the Prophet Muhammad.

The *Quran* says: 'Muhammad does not speak for himself, but he passes on whatever God reveals to him' (*Sura Al Najm*, 3–4).[16] Muslims believe that the *Quran* is the direct word of God revealed to the Prophet Muhammad. Therefore, all sources of Islamic law are centered on finding and establishing God's 'command' and 'prohibition' (*'amr' wa 'nahya'*) regarding different questions of individual, social, societal and political life in the Islamic world. As Islamic law is a set of God-made laws, once established, it enjoys the strongest enforcement incentives and guarantees, since no one can dare to breach God's command.[17]

It is also important to note that, similar to the dictum of the Permanent Court of International Justice (PCIJ) in the 1927 *SS Lotus* case *(France v Turkey)*, which states that in international law, whatever is not expressly prohibited is permitted,[18] in Islamic law, too, everything is allowed (*mubah*) unless prohibited.[19] Furthermore, similar to international law, Islamic law allows local or regional customary law to be applied in areas of law or situations not regulated by a specific provision. This gives flexibility to the often rigid nature of the Islamic legal system and mirrors the international legal system which provides for the application of customary international law in the absence of an applicable international treaty.[20] For example, in areas such as trade, governance, politics, dispute resolution, delimitation of boundaries and transboundary water allocation, where there is no specific provision provided in Islamic law, according to Islamic scholars, this can be addressed by custom (local, regional and international).[21]

Islamic law scholars have referenced to all four sources of Islamic law (*Quran*, *Sunna*, *Ijma* and *Qeyas*) to argue that custom is an important gap-filler in Islamic law. They argue that where there is no explicit rule regarding a particular question in the sources of Islamic law mentioned above, Muslims must consult local or regional customs to resolve that question. Some of the most important verses of the *Quran* referenced by Islamic scholars to prove validity of custom are verse 199 of *Surat Al A'raaf*, verse 78 of *Surat Al Haj* and verse 110 of *Surat Al Emran*. There are also numerous *hadiths* (sayings of the Prophet) that have been referred to by Islamic scholars to prove that custom is a valid fill-in in Islamic law.[22]

There is no rule in Islamic legal sources explicitly and directly concerned with transboundary waters. Therefore, this area of the law must be addressed in the light of local, regional and/or international custom. In the following the four sources of Islamic law or, better, 'evidence of God's "command" and "prohibition"' are discussed in more detail: (1) the *Quran*; (2) *Hadiths*/Traditions (*Sunna*); (3) Consensus of Islamic religious law scholars (*Ijma*); and (4) Analogy (*Qeyas*) or Wisdom (*Aql*).

The Quran

The *Quran* is the first and the most authoritative source of Islamic law. It is the direct word of God revealed to Prophet Muhammad. Hundreds of questions and issues have been discussed and addressed in the *Quran*. There are a total of 6,660 verses in the *Quran*. Of these verses, only 500 verses (13%) are Islamic regulatory provisions. Muslims in general view the *Quran* as the Holy Book and attach many spiritual values to it. Islamic Sharia law scholars view the *Quran* as the Holy Constitution that if interpreted properly can provide an answer to every single question or issue in the world be it social, political, economic, scientific or whatsoever in nature. Islamic scholars have written volumes of books interpreting *Quranic* verses. They view the *Quran* as a 'live document' that can be interpreted in an 'evolutional' and 'progressive' manner. Ordinary Muslims are not permitted to apply the *Quran* literally; they are considered unable to understand the *Quran* properly.[23] They must apply these provisions as interpreted by Islamic scholars (*Ulema*)[24] and provided to them as simplified practice guidebooks.[25]

Traditions (Sunna/Hadiths)

The second source of Islamic law is Traditions. 'Traditions' means sayings of Prophet Muhammad (words), his practice (acts and omissions) and his approvals (silence regarding acts and omissions) of the practices in his presence during his lifetime. Islamic scholars argue that the Prophet in His status as the 'messenger' of God is under a duty to act and omit as God pleases. He does not speak for himself nor does He act or omit for himself but He acts as God tells him to. Therefore, any practice and omission of the Prophet that can be interpreted as implying a certain generally applicable rule must be considered as a source of Islamic law and therefore evidence of God's intention.[26]

16 *Quran*, Al Najm, 3–4, translation by Pickthall, taken from the *Quran*ic Arabic Corpus.

17 Mortaza Motahari *An Introduction to Islamic Law, vol 3* (6th edn Sadra Publications) http://makarem.ir/compilation/reader.aspx?mid=68785&catid=6574.

18 PCIJ (ser A) No 10 (1927).

19 Sheikh Hoor Aamoly *Wasayel ul Shiyah, vol 17* (Alulbait Publications 1414 Islamic calendar) 87 http://www.eshia.ir/feqh/archive/text/sobhani/osool/88/881014/.

20 Statute of the International Court of Justice art 38 (18 April 1946) http://www.icj-cij.org/en/statute.

21 Jafar al Mohaqiq ul Helly *Sharai'a ul Islam Fil Masayel-el Haram wal Halal, vol 3* (Ismailyan Publications 2014) 220.

22 Sayed Alijabbar Golbaghi *An Introduction to Custom* (Center for Islamic Studies 2011) http://lailatolgadr.ir/?MID=21&Type=News&TypeID=13&id=26772#sthash.ETZ89r8t.dpbs.

23 Muslims speaking languages other than Arabic are required to learn how to pray in Arabic. Being able to read the *Quran*, which is in Arabic, is not mandatory for qualifying to be a Muslim but a great deal of spiritual value is attached to *Quran* literacy. Normally, all literate Muslims are able to read ['recite'] the *Quran*. This is because, the *Quran* is taught at schools and there is a great deal of exposure to the *Quran* in daily life in a Muslim community. Every Islamic scholar must be able to read Arabic and research in Arabic. Most Islamic authorities (even those written by non-Arabic speakers (Iranins, Afghans etc)) are in Arabic. A huge portion of mandatory Islamic Sharia law subjects are in Arabic.

24 The *Quran* is in Arabic and all Muslims should learn Arabic in order to read the *Quran*. Only highly qualified Islamic scholars are permitted to translate the *Quran*. Every translation should be accompanied by the original text. Printing a translation without the original text is crime (felony) in almost of all the Islamic countries. For example, in January 2009 two Afghan citizens were sentenced to 20 years' imprisonment for translating the *Quran* without the original Arabic text. https://www.iclrs.org/index.php?pageibid=8&linkibid=21&contentibid=474&blurbibid=394.

25 Motahari (n 17).

26 ibid.

However, it should be noted that, according to Sunni Muslim scholars, 'Traditions' as a source of law means words, acts and omissions as well as approvals of Prophet Muhammad alone. But Shiite Muslim scholars have a different interpretation of the Traditions. They argue that not only the words, acts, omissions and approvals of Prophet Muhammad but those of His 12 successors (imams) are also sources of Islamic law. Shiite scholars cite several verses of the *Quran* (for example, *Al ma'eda*/67) and sayings of the Prophet where He says that as long as Muslims refer to the *Quran* and His successors (*Imams*) for guidance they will not lose the right path to salvation.[27]

Consensus (*Ijma*)

As a source of Islamic law, 'Consensus' means the agreement of all Islamic scholars that live in one time over one or several specific questions of law. The logic behind the authoritativeness of 'Consensus' is argued to rely on the fact that if all scholars who live at one time/era agree on something, this agreement will indicate that they are right and it is unlikely that all scholars are mistaken together. However, there is a slight difference between interpretation of 'Consensus' provided by Sunni scholars and Shiite scholars. Sunni scholars believe that Consensus is a valid source of law per se without any preconditions. But Shiite scholars argue that the Consensus of scholars by itself is not a source of law; it is only considered a source of Islamic law and thus revealing God's opinion if the Consensus implies words, acts, omissions and approvals of the Prophet Muhammad or one of His 12 successors (*imams*).[28]

Analogy (*Qeyas*) or Wisdom

The fourth important source of Islamic law is analogy according to Sunni Islamic scholars and Wisdom (*aql*) according to Shiite Islamic scholars. Sunni scholars argue that since there are not enough verses in the *Quran* and *Hadiths* of the Prophet to address all existing and future issues, an efficient way to infer Islamic legal provisions would be to use analogy. For example, in one Islamic guiding principle, a judge is not permitted to issue his judgment while he is angry. Now, the question is: if a judge is not angry but is very hungry, can he issue a judgment? There is no rule in Islamic law about the latter. Based on analogy, one can argue that the reason Islamic law prohibits a judge from entering judgment while angry is because he is under the influence of his passions and therefore does not have a stable mind to enter a sound judgment. This influence of passion can be inferred in the case where the judge is hungry too. Therefore, the judge must not enter a judgment when he is hungry because he lacks a sound mind.[29]

On the other hand, Shiite scholars argue that if there is no provision in the *Quran*, Traditions or Consensus of Islamic scholars regarding a particular case or issue, Islamic scholars are permitted to refer to their wisdom and use their best judgment to address an issue. They further argue that the purpose of Islamic law sources is to find Godly provision(s) regarding a specific issue. If no provision is found in other sources of law and we know that God is the Creator of wisdom, one can infer that God does not act contrary to what is wise. Therefore, in such a situation a sound wisdom can tell us what to do that is not contrary to the 'will' of God. However, Sunni scholars are of the view that Islamic law is 'the law of obedience' and Muslims must 'follow' what the religion provides. Wisdom and best judgment cannot live together with Islam which means 'full submission to and obedience' of the rules.[30]

In summary, all rules come from these four sources of Islamic Law, except for issues relating to trade, governance, politics, dispute resolution, etc., where custom has been recognised as authoritative under the Islamic law that applies to these issues. Generally speaking, there is a hierarchy among the sources, with the *Quran* being the first most authoritative source, Traditions second and Consensus and Analogy (Sunni Muslims) or Wisdom (Shiite Muslims) third and fourth respectively. If no rule is found in these sources regarding a specific question or case, Islamic scholars suggest that such a question must be resolved by local, regional or international customs, depending on the nature of the case.[31]

Sources of international law

International law is a system created by states to govern the relationships between states. Hence states are both the authors as well as the subjects of the international law regime. International law has evolved to secure peaceful co-existence and promote the common interest of states. Modern international law has its origins in 17th-century Europe as a series of peace agreements, and has expanded to cover virtually all facets of our global community including social issues, such as human rights, environmental issues such as pollution control, and economic issues such as trade relations.

The sources of international law are spelt out in Article 38(1) of the Statute of the International Court of Justice (ICJ) as:

- International conventions, whether general or particular, establishing rules expressly recognised by the contesting states
- international custom, as evidence of a general practice accepted as law
- the general principles of law recognised by civilised nations
- subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.[32]

From a comparative perspective, two questions may be discussed regarding sources of international law and Islamic law. The first question is whether there is a hierarchy between sources of international law as listed in Article 38(1) of the ICJ Statute? In other words, if a rule of international law applicable to a particular case is found in an international treaty does it prevail over another

27 Sayed Mohsen Amin Aalimy *A'yanu al Shiite, vol 1* (Daurl Taaruf Publications 1421 Islamic Calendar) 370.

28 Motahari (n 17).

29 Motahari (n 17). See also vol 20 in the same series http://www.maaref.porsemani.ir/content/%D8%A7%D8%AC%D8%AA%D9%87%D8%A7%D8%AF-%D9%82%DB%8C%D8%A7%D8%B3%DB%8C.

30 ibid.

31 *Quran* Sura Ibrahim: 4 (this verse is interpreted to refer to custom as a source of law).

32 Statute of the International Court of Justice USTS 993 (26 June 1945).

applicable rule found in customary international law? The answer to this question is affirmative; meaning that if a rule applicable to a case is found in a treaty, that rule prevails over rules of customary international law or rules found in other sources of international law applicable to that case.[33] Similar hierarchy exists among the sources of Islamic law. That is to say, rules found in the *Quran* prevail over the rules found in the Traditions, Consensus and/or Analogy or Wisdom.[34]

The second question that maybe discussed here is what gives the sources of international law and Islamic law legal force? Why are they binding? The answer to this question in the Islamic law context looks to be quite straightforward. In this legal system God is the lawmaker and He is the most powerful authority in the universe. He has created both the universe and the law by which the universe should be ruled and managed. God is the rightful authority and the king of kings to rule the world but He does not desire to exercise this power directly; rather, He has delegated his authority to mankind as his 'vice-regent' or 'successor' (*khalifa*). In this context, because, the law comes from God, its binding force and authoritativeness is undisputed.

In the international law context, however, scholars have expressed different views regarding why rules of international law are binding. Sir Henry Maine, the well-known 19th-century international law scholar and one of the founding fathers of the 'natural law theory' has argued that the legal force of international law has its headwaters in the natural law. He says: '[t]he grandest function of the Law of Nature was discharged in giving birth to modern International Law'.[35] The 'natural law theory' was the dominant theory of international law until the 20th century when the 'positivism' theory overtook it. According to the latter, the answer to the question of where the legal force of international law comes from, '[i]s found in the acceptance by states, in their practice, of certain law-creating *processes* as legitimate ways of making law'.[36] Professor McCaffrey further explains that:

> This theory [positivism] is sometimes more narrowly defined in volunteerist terms as holding that states are bound only by those rules of international law to which they have voluntarily consented. Indeed, both the International Court of Justice and its predecessor have made statements to this effect.[37]

The 'statements to this effect' were made by the PCIJ and the International Court of Justice in the *Lotus* case *(France v Turkey)* and the *Nicaragua* case *(Nicaragua v US)*, respectively. In the *Lotus* case, the PCIJ stated that '[t]he rules of law binding upon states … emanate from their own free will'.[38] Similarly, in the *Nicaragua* case, the Court stated that 'in international law there are no rules, other than such rules as may be accepted by the states concerned, by treaty or otherwise'.[39] The important take-away from this discussion is that international law is binding on states in one way or the other. The naturalist, positivist and volunteerist theories of international law do not question the legal force of this branch of law. What these theories are concerned about is in what way and why international law becomes binding on states.

WATER: A SHARED RESOURCE

Under both Islamic law and international water law, water is a common resource that must be shared. In the *Quran*, water is regarded as the common property of all human beings (54:28).[40] The *Quran* states that 'all that is on Earth' belongs to God and has been subjected to humans (22:65) and that 'it is He who has created for you all things that are on Earth' (2:29). The *Quran* recognises human beings as *Khalifa*. *Khalifa* has generally been understood by Muslims to mean 'vice-regent' or literally 'deputy ruler'. In this sense, humans are considered stewards or trustees responsible for developing and conserving the Earth and the resources on it.[41]

In an important *Hadith*, Prophet Muhammad is quoted to have said that: 'Muslims have [a] common share in three things: grass (pasture), water and fire (fuel)' (Abu-Dawood 3470).[42] All Muslim scholars agree that, based on the *Quran* and *Hadiths* of the Prophet, there is a consensus that water is a common resource for human beings. Muslims are forbidden to waste water, even for holy purposes and prayers. The Prophet has also forbidden his followers from polluting water and urinating in stagnant waters.[43] The *Quran* requires Muslims not to waste water resources and to conserve them.[44]

Similarly, in the international law context, there are ample conventions, treaty law, case law and writings of highly qualified publicists that recognise water as a shared resource and emphasise equitable and reasonable utilisation. For example, Article 5(1) of the 1997 UN Watercourses Convention states that: 'Watercourse states shall in their respective territories utilise an international watercourse in an equitable and reasonable manner.' The Convention also emphasises the 'adequate protection of the watercourse'.[45] Therefore, any claim that the water flowing in any international river belongs to one state is against principles of both Islamic law prescribed in the *Quran* and *Hadith* and international law.

WATER RIGHTS IN ISLAMIC LAW

Under Islamic Sharia law, there are three categories of water rights: (1) the human's right to drinking water (*haq ul shufa*); (2) the right of cattle to drinking water; and (3) the irrigation right to water or water for irrigation (*haq ul*

33 *North Sea Continental Shelf (Federal Republic of Germany v Denmark; Federal Republic of Germany v Netherlands)* (Judgment) [1969] ICJ Rep 3, para 72.

34 Islamic scholars have consensus over this hierarchy among the sources of Islamic Law.

35 Henry Maine *Ancient Law; Its Connection to the Early History of Society, and Its Relation to Modern ideas* (1st edn John Murray 1861).

36 Stephen McCaffrey *Understanding International Law* (2nd edn LexisNexis 2015).

37 ibid.

38 *SS Lotus (France v Turkey)* (1927) PCIJ Series A No 10 (*Lotus* case).

39 *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v United States of America)* (Merits) [1986] ICJ Rep 114.

40 L Wickström *Islam and Water: Islamic Guiding Principles on Water Management* (The Finnish Institute of International Affairs 2010), quoting Richard C Foltz 'Ecology and religion: ecology and Islam' in Lindsay Jones (ed) *Encyclopedia of Religion* (2nd edn Thomson Gale 2005) 2651–54.

41 *Quran*, Al Aa'raaf, v 128.

42 Wickström (2010).

43 ibid.

44 ibid.

45 1997 UN Convention art 5(1), (2).

majra). The human's right to drinking water has priority over cattle and irrigation rights. Similarly, the cattle's right to drinking water has priority over the irrigation right.[46] Because water is a shared resource in Islamic law, when using this shared resource, human beings are bound to consider and follow the above-mentioned priorities during any period of water shortage. There is a *Hadith* that says 'no one should go thirsty' and that depriving others of the surplus water is forbidden.[47] This 'no one should go thirsty' rule applies even to privately owned wells and springs, meaning that the owner of a private well cannot prevent other human beings from drinking water from his well if there is no other source available.

However, once there is enough water for humans and cattle to drink, then water can be used for irrigation. Islamic scholars have not reached a consensus on water rights for irrigation. Instead, they have come up with different views on this issue, particularly in a shortage situation. The following section will discuss the issue in more detail.

Irrigation water management in Islamic law

Under Islamic law, everyone can start developing a tract of land and use water to irrigate his or her land based on priority. Once a piece of land is developed and someone has diverted the water s/he will own that land as well as the water needed and diverted to irrigate it as the 'parts and parcel' of the land. This provision is not limited to irrigable land and water but can also apply to all other commons such as grassland, pastures and deserts.[48]

If there was enough water for everyone, everyone would be happy and could use the water. However, if the water is not enough for all, who has priority to use the water?

The Islamic scholars have different opinions on this question. In a shortage situation, there are three main views: (1) the prior appropriation rule (*Qaeda-e Sabaq*); (2) the riparian right or the nearest land to river rule (*Qaeda-e aqrab fal aqrab*); (3) the coin flipping rule (*Qura'a*).[49]

Similar to the 'prior appropriation right' in the western United States where water is distributed based on priority among senior and junior users, the Islamic *Qaeda-e Sabaq* or prior appropriation rule is based on 'the first-in-time, first-in-right' principle. This means that everyone is entitled to use water based on priority in time. Therefore, in a shortage, the senior user has priority over the junior user and the junior user can only use water after the senior has diverted enough water for their use. Interestingly, the junior users cannot start diverting water at the very beginning of the canal if there is no 'surplus water' in the river that exceeds the senior users' needs. Junior users can only start using the water after the senior's need is satisfied and the juniors' use does not harm their right.[50]

The second principle that has been discussed by Islamic scholars is *Qaeda-e aqrab fal aqrab* or the riparian rights principle. Based on this principle, when there is plenty of water in the river, lake or spring to satisfy all needs, everyone is entitled to use water based on proximity of their land to the water source in question. For example, imagine A, B and C are the owners of different tracts of land. A's land is riparian to the river, i.e. located right at the bank of the river. B's land is located behind A's tract and does not touch the river, and similarly C's tract is located behind B's land.

Under the Islamic riparian rights system, in a water shortage A diverts water from the river to the amount that fully satisfies his need and then releases the surplus water to B. B in turn takes the water for his land located right behind A's tract. After B is satisfied, B should release the surplus water to C. C will be the last person who can use water – if there is *any* water left for C. Suppose, however, that A takes the amount needed for his land and as a result no water is left for B's irrigation needs. In such a case, B will go without water and has no right to complain. The same is true for C if no water is left after B's use.[51]

Under the coin-flipping rule (*Qura'a*), some Islamic scholars have argued that the riparian and prior appropriation rules will unjustly deny water from water sources to some users although everyone has the equal right to use the water from a God-given source. They argue that the fact that some users' land is located further from the river or some others have started diverting water earlier in time, that is to say the 'first-in-time, first-in-right' rule, should not prevent the later user or the user whose land is not adjacent to the river from diverting water. They argue this style of allocation is unjust. Instead, they suggest that in times of shortage, the water allocation must be decided by coin-flipping (lottery). In this way, no one will be deprived from water unjustly and everyone will have an opportunity to try her luck at winning the water 'lottery'.[52]

Of the three viewpoints discussed above, the prior appropriation – *Qaeda-e Sabaq* – appears to be more authoritative and has more backers in the Islamic texts. This is because this principle is more consistent with another well-known Islamic general principle called the *la zarara wa la zeraara fil Islam* that literally translates as 'no one is allowed to harm himself nor others', or the Islamic 'no harm' rule, which will be discussed later in this article. The two other viewpoints have not been able to achieve significant supporters among Islamic scholars, but are still considered important views.[53]

The question that has yet to be answered in the above scenario where A, B and C own different tracts of lands successively located next to each other on a riverside, is: Who decides that how much water is 'enough' for A? In other words, in a shortage, what amount of water A is entitled to use? Is there a rule that can decide the amount to be diverted by A or does A have full discretion to use whatever amount A thinks is 'enough'? Islamic law

46 Wickström (n 40).
47 ibid.
48 Kolaini Mohammad Bin Yaqub, Alkafi, Darul Kotoob ul Islamia (Publications), Tehran, (1363 Persian calendar). ,
49 Tousi Mohammad Bin Hasan, *Al Mabsoot Fil Feqh-e Al Imamia, Vol 3* (3rd edn Almortazawiah Publications1387 Persian calendar) 283.
50 Khomeini, Rohullah, Tahrirul Wasila, Ahya ul Mawat, Question 3, Islamic Publications Center, Qum (1379 Persian calendar).
51 Mohammad Bin Hasan (n 49).
52 ibid.
53 Mohammad Nasr Esphahani *Water Rights and Human Rights to Water* (Esfahan University Press 2014) http://www.m-nasr.com/قح-ب،-أقح%E2%80%8Cلالسآن#_ftn11.

scholars, at some point referring to a *Hadiths* from the Prophet Muhammad, have tried to specify the maximum amount that can be used by the first user – in this case A. The *Hadith* says that 'no more than an ankle depth of water may be taken for irrigation and one ankle depth is sufficient for one season'.[54] Given that different crops and trees need different amounts of water, this amount of water mentioned in the *Hadiths* is said to be applicable in a certain situation or country and not generally applicable to all situations. Therefore, most Islamic scholars argue that the amount should be decided by the customary rules applicable in the relevant area or region.[55]

THE ISLAMIC 'NO HARM' RULE

Application to domestic cases

A very important and prominent rule in Islamic Sharia law is the 'no harm' rule or *Qaeda –e la zarar*. This rule is formed from a well-known *Hadith* of the Prophet who said: '*la zarara wa la zeraara fil Islam*' – which literally translates as 'in Islam, no one is allowed to harm himself or others'. This rule was introduced by the Prophet in a dispute between two Muslims in Madina City (modern Saudi Arabia) in the early history of Islam. In this case, a Muslim named Samra bin Jundab owned a tree located inside the yard of another man. Samra would go inside the yard of the man to water his tree. At a certain point, the man asked Samra to knock on the door and ask for permission whenever he wanted to go inside and water his tree. Samra refused to do so and argued that he had the right to visit and water his tree at any time without being required to ask for permission from the house owner. The man complained to the Prophet. The Prophet ordered Samra to knock on the door and ask for permission of the house owner whenever he wanted to water his tree. Samra refused to follow this order. The Prophet ordered the house owner to cut down the tree so that Samra would no longer have any right to enter into his yard. When Samra objected to the decision and asked why, the Prophet replied, 'in Islam, no one is allowed to harm himself or others'.[56]

The 'no harm' rule is one of the most cited authorities in Islamic Sharia law. This rule has been widely applied to different areas of law including family, personal injury, commercial and civil liability cases. In addition to the above-mentioned case, Islamic scholars in reference to the Islamic 'no harm' rule and its general applicability in all relevant circumstances have cited several verses of the *Quran* and *Hadiths* of the Prophet. Since water is central to Islamic Sharia law, this rule – though it was based primarily on a property right dispute – can be applied to water rights as well.[57]

Based on the 'no harm' rule, any use of a property right or a legal right of any kind by the owner of property is only permissible when such use does not harm other right holders. In the water law context, this rule – coupled with the 'prior appropriation' principle discussed above – only permits new uses if such uses do not harm existing uses. In other words, junior users in a 'prior appropriation' (*Qaeda–e Sabaq*) system as well as in the Islamic riparian system (*Qaeda–e Al aqrab fal aqrab*) can only initiate a new use if such a new use in no way harms existing water rights.[58]

Particularly in the context of water use, Islamic scholars have frequently cited a case that is alleged to have been advised by Imam Sadiq, the sixth Imam and the founder of the Shiite Muslim sect. In that case, the owner of a watermill complained to Imam Sadiq and told him that the upstream user who had a water right from a specific stream planned to divert the water through a different channel for irrigation. If this diversion was permitted, the watermill owner would no longer have water to operate his mill because there would be no water left in the channel on which he had installed his watermill. The plaintiff asked if the upstream user had the right to such a diversion under Islamic law. Imam Sadiq replied, 'this man should fear from God's displeasure and should act in a way that does not harm his Muslim brother'.[59]

There is plenty of literature in the Islamic authoritative texts regarding *harim* or 'part and parcel of land, river-banks, wells, and springs' that is not permitted to be developed by others. Under the 'no harm' rule, one can only dig a new well or a new spring if the new well or spring is located at a certain distance from existing wells and springs to avoid harm.[60] Based on Islamic law, if someone develops a tract of land, constructs a canal, or diverts water to irrigate land, then that person owns that land and it is all 'parts and parcel'(usufructuary rights) including the water right. No one is permitted to take away the land and the water right from the developer.[61]

The question is whether the government, municipality, city or county can indirectly deprive landowners of their right to water by constructing large dams, reservoirs and aqueducts that divert water from one place to the other for large irrigation schemes or municipal uses. According to Islamic scholars, under the 'no harm' rule, no one – not even the government – is allowed to divert water on such a large scale that it harms small-scale irrigation users.[62]

However, there is another major rule in Islamic Sharia law that might be interpreted to allow such a diversion by cities. That rule is the *aham wa muhim* rule that literally translates as 'the important vs. the more important' rule. This rule is based on Wisdom, and several other Islamic sources (the *Quran* and *Hadith*) have usually been cited to support it. Based on this rule, if someone faces a difficult situation where they have to choose between two extreme acts, they should choose the 'more important' one. For example, stealing is an illegal act and impermissible. On

54 Wickström (n 40).
55 Esphahani (n 53).
56 Kolaini Mohammad Bin Yaqub (n 48).
57 Sayed Mohammad Kazim Taba Tabayee, Yazdi, Tukmelat ul Urwatul Wosqa, vol 1, p. 76, Dawari Publications, Qum, Iran (1414 Islamic calendar).
58 ibid.
59 Esphahani (n 53).
60 Depending on the porosity of land, different distances might be required for different wells and springs as *harim* (part and parcel of property). Generally, in a well used for drinking water, the distance between two wells should be 20 meters, for irrigation wells 30 meters and for springs between 250 and 500 meters. The distances can differ depending on infliction of harm by new wells and springs. Most often local custom is applied to decide the distance and identify if harm is caused by new uses.
61 Esphahani (n 53).
62 ibid.

the other hand, everyone is under a legal duty not to take his or her own life. The person in this scenario can only live if s/he steals food. Thus, the 'duty not to steal' in this case is an 'important' legal duty but the 'duty to save one's own life' is a 'more important duty' for the purpose of this rule. Therefore, if the person's life can be saved only if s/he steals food, s/he should ignore the 'important duty'– refraining from stealing food, and perform the 'more important duty' of saving his or her life.[63]

On the question of whether municipalities or cities can construct large dams, reservoirs and aqueducts to divert water to distant cities and thus deprive small-scale water right holders of their right to use water for irrigation, one might say that under the 'important vs. more important' rule, cities are permitted to do so.[64] However, one should note that application of this rule depends upon the context. Because it has been argued that the right to divert water for drinking is one thing, but to fill swimming pools is another. Meaning that all diversions by municipalities are not necessarily for drinking purposes.

Application to transboundary cases

So far, we have discussed the Islamic rules regarding water allocation for irrigation in a domestic context. As previously noted, the rules associated with Islamic water law are meant to apply to domestic uses as there were no national borders as we know them at the time when the Prophet was alive (circa 650). Nevertheless, there are clearly areas of consistency between contemporary international water law and Islamic law which might assist in transboundary water issues including between countries that have Islam as their established state religion. For example, rivers such as the Harirud shared by Afghanistan, Iran and Turkmenistan. As discussed earlier, in areas where there is no specific rule in the *Quran*, Traditions, *Ijma* and *Aql* or Analogy, Islamic law refers to local or regional customs.[65] This question is further discussed in the next section.

ISLAMIC WATER LAW IN THE TRANSBOUNDARY WATER RIGHTS CONTEXT

Let us hypothesise a situation in which Islamic water law could assist transboundary water issues within a basin shared between two Islamic states (Figure 1).

In Figure 1, the river flows from state A into state B in an arid area and is subject to large inter-annual variations in flow. It is anticipated to be greatly affected by future climate fluctuations. In recent decades, City B has expanded rapidly and state B has developed infrastructure, including a large dam, and expanded irrigation using most of the available water in the river in any given year. With a growing population and expanding economy, state A has begun to improve and develop infrastructure in the upstream area around City A. Development and water use in the basin is pushing the limits of availability and the states want to develop an agreement that will provide stability, particularly in the face of climate change.

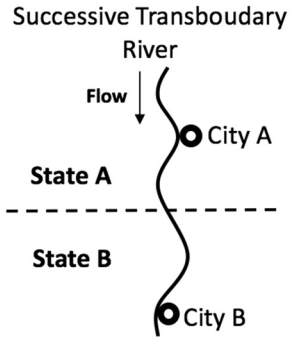

Figure 1. Successive river.

Since the river involved is successive originating in state A, it is very likely that state A might choose the so-called Islamic 'riparian rule' or the *Qaeda–e aqrab fal aqrab*. This principle provides that the land riparian to the river has priority over other lands, or put in other words: 'the user closest to the source has priority over other users'. Based on this principle state A has the right to satisfy its use and release the surplus water to state B.

However, state B and other downstream states are very likely to assert the Islamic 'prior appropriation', the 'no harm', and in the case of City B, the 'no one can go thirsty' rules. This is because downstream states have developed their land and started using the water earlier and claim historical use or prior appropriation of the water. Under both rules – prior appropriation and no harm, new uses initiated by the upstream state are not permitted. Because, by starting a new use, state A would become a junior user and junior users can only start using if their use does not 'harm' the established uses of senior users. In other words, state A must wait until state B satisfies its needs and only then can it use the water.

These rules have been argued by various scholars, for example Mohammad Nasr Esphahani, a prominent Iranian Islamic scholar and professor at Esphahan Public University, argues that the 'prior appropriation' rule and the 'no harm' rule can and should be applied to transboundary water cases under Islamic Sharia law.[66] He argues that under Islamic law and moral principles, if a downstream state has historically used the water and depends on that water, it has appropriated the water right prior to others and therefore is entitled to continue the uninterrupted use. According to Esphahani, if the upstream state initiates a new use, that state can only do so if the new use does not 'harm' the existing uses of the downstream state. Otherwise, new uses upstream would be barred by the 'no-harm' rule under Islamic Sharia law.[67]

The 'prior appropriation' and the 'riparian' doctrines prescribed by Islamic law are similar in nature to the 'prior appropriation' and 'riparian rights' doctrines widely applied in the western United States – particularly the state of California. However, they are different in some important aspects, which are worth understanding to avoid confusion.[68] A few examples are presented below to

63 Tayyeba Setoorg 'The "aham wa muhim" (tazahum) principle from the Islamic Jurisprudence Perspectives' (2011) 4 *Mahfil Law Review* http://pajoohesh.howzehtehran.com/Files/mahfel.php?idVeiw=1588&level=4&subid=1588.

64 ibid.

65 Esphahani (n 53), quoting Al Mohaqiq ul Helly (n 21) 220.

66 ibid.

67 ibid.

68 For a quick understanding of the two doctrines in the western United States see David H Getches and others *Water Law in a Nutshell* (5th edn West Academic Publishing 2015).

highlight some of the differences between the two systems. First, in California 'riparian right' to water is an equitable right and riparians are entitled to a 'reasonable' share from the river. At times of shortage, riparians will have a 'correlative' right to water and must share the pain (shortage) when there is not enough water for everyone. Secondly, under California's 'riparian rule' the riparians do not have the right to store water at times when there is plenty of water in the river and use the stored water in times of shortage. Riparians must consider the 'natural flow' of the river and avoid interrupting the natural conditions of the river shared by riparians. Third, from the perspective of the State Water Resources Control Board's (SWRCB) permitting system a riparian right holder is not subject to the state's permitting system and does not need to acquire a permit to use water.[69]

Similarly, the 'prior appropriation' right under the water laws of California is categorised into pre-1914 appropriative rights and post-1914 appropriative rights. Although both pre- and post-1914 rights are based on the 'first in time, first in right' principle, they are distinct in an important way, i.e. the requirement to get a permit from SWRCB. The pre-1914 water right holders are not required to get a permit from SWRCB while holders of the post-1914 water rights must obtain a permit from SWRCB to use water.[70] Islamic 'riparian' and 'prior appropriation' principles lack such detailed regulations. Unlike the system in California where there is a large body of law concerning the two types of water rights (riparian and prior appropriation), in the Islamic legal system one does not see such a comprehensive regulatory system. Islamic riparian right to water does not recognise the equitable use principle or the 'correlative' share of riparians in times of shortage nor does the system speak of water rights subject to any particular permitting regime. In short, the riparian and prior appropriation rights under California's legal system have been extensively developed and are widely practised, while in the Islamic legal system the two principles are not well developed and remain at their primary stages and, thus, rarely practised.

As discussed earlier, since the riparian and prior appropriation doctrines primarily regulate domestic water uses, they do not constitute a hard-and-fast Islamic rule that must be applied to transboundary rivers. Instead, under Islamic law, such an issue should be resolved by regional customs.

Professor Esphahani also acknowledges that disputes over water allocation should be resolved by regional custom and, if needed, by international customary law. He points out that in questions where no specific provision is provided in Islamic law, those questions should be resolved by customary law. Trade, commerce, water allocation, and dispute resolution are the areas that Islamic scholars mostly recognise to be governed by customary law because there is no specific provision for them in the Islamic sources.[71]

Of the principles in the Islamic sources for managing water use in the domestic context, the 'no harm' rule is fully reflected and expressed by the international law particularly Article 7 of the 1997 UN Watercourses Convention. In the international context, downstream states favour the 'no harm rule' and typically prefer it over the 'equitable and reasonable' utilisation rule set forth in Article 5 of the Convention. At the international level, international law scholars – like Islamic law scholars – support the notions of negotiation and cooperation and prefer a win-win solution to the application of often inflexible legal principles.[72]

Beyond referring to regional customs to resolve transboundary water issues, the application of the concept of '*Anhar–e A'mmah*' [the public rivers] rule helps to balance the apparent discord between the 'riparian rule' (*Qaeda–e aqrab fal aqrab)* and the rules associated with prior appropriation (*Qaeda–e Sabaq*) and 'no harm' rule or *Qaeda–e la zarar* as they might be applied to transboundary rivers. Clearly, a river of such significance as described in Figure 1 would need to accommodate the needs application of various Islamic rules associated with water, including the 'no one should go thirsty' rule. The concept that there are large and significant public rivers, lakes, aquifers, snowmelt water, rainfall, precipitation, snowcaps and glaciers in their natural state that are thus common to all, allows for a more balanced perspective somewhat analogous to the 'equitable and reasonable' use doctrine in contemporary international water law. The argument that the river is no longer in its 'natural state' as it has been dammed, and is thus not '*Anhar –e A'mmah*,' is addressed in multiple ways. Firstly, at the time of the *Quran* damming and controlling, or diverting, the volume of a river such as the Nile was not possible, hence the reference to being in a 'natural state' relates to large water bodies that were natural in their creation, or derived from God as opposed to being created through human infrastructure. Secondly, it can be argued that the concept of a public river envisions situations where rivers, or other water sources, are of such significance that they should be available to the good of all. Indeed, several rivers including the Nile, Euphrates, Tigris and Amu Darya rivers have been specifically mentioned in Islamic texts as large public rivers (*Anhar–e A'mmah*) that should be used by all communities and cannot be owned by private individuals.[73]

Moreover, there is a famous principle in Islamic law that says 'the best approach is the one in the middle of two extremes' (*khair ul omoor–e awsato ha*). This rule has its headwaters in the *Quran*, Luqman/19 that reads: 'And be moderate in your pace and lower your voice'.[74] Islamic scholars have interpreted this verse of the *Quran* to refer to a generally applicable rule that requires Muslims to choose the moderate approach in every walk of life, be it individual, social, political, economic, lifestyle or commercial transactions.[75] Assuming this rule is applied to negotiations between Islamic countries over transboundary water resources, states are bound to refrain from taking extreme positions. They are under a duty to choose a moderate position, which would be the same as the

69 ibid.
70 ibid.
71 Esphahani (n 53).

72 McCaffrey *The Law of International Watercourses* (n 8) 384.
73 Wickström (n 40), quoting M I Dien 'Islam and the environment; theory and practice' (1997) *Journal of Beliefs and Values* 55.
74 *Quran*, Luqman/19, translation by Sahih International https://quran.com/31:19.
75 Naser Makarem Sherazi and others *Tafsir Nemoone, vol 3* (32nd edn Islamic Publications Center 1374 Persian calendar) 561.

win-win solution under international law. Further, it is important to note that the word *adalat* or *e'tidal* in Islamic Law that means 'equitable' under international law literally translates as half way between two extremes in a spectrum. This means exactly the win-win solution approach supported by international law in issues concerning transboundary disputes.[76]

OWNERSHIP OF WATER

One important issue to address, as this is a question frequently raised, is the question of water ownership. Media and individuals frequently state that individual states own the waters flowing in transboundary rivers, in particular with respect to water flow generated in an individual state's territory. They argue that because the water originates in the state's territory, the water belongs to that state. From that perspective, downstream states only deserve the amount of water that drains from their own territories on the other side of the borders or only the surplus waters that flow from upstream. The notion of 'surplus water' has its origin in the Islamic law 'surplus water' doctrine that prohibits Muslims from withholding surplus water. As discussed earlier in this article, under the 'surplus water' doctrine, Muslims or Islamic states are allowed to use as much water as they need and after their needs are satisfied they are required to release the surplus water to downstream states.

This section will try to shed some light on the issue of water ownership in Islam. Since water is considered a common property and a gift of God in Islamic law, no one can privately own water in its natural state. However, from the discussions and conclusions by Islamic scholars, three categories of ownership over water have developed. First, if the water is in personal containers, treatment plants, reservoirs or a distribution system, it is considered private property and thus subject to selling and purchasing. Secondly, if the water is in a lake, stream, spring or well located on a private property it is subject to a restricted private property right. The owner has the right to use, sell or trade the water, but has certain obligations to others. Third, the water flowing in the large rivers, lakes, aquifers, snowmelt water, rainfall, precipitation, snowcaps and glaciers are in their natural state and thus common to all. Such waters cannot be owned privately unless the owner invests money and labour to collect or divert such waters.[77]

Similarly under international law, transboundary rivers are considered as shared resources and none of the riparian states is allowed to claim sole ownership of or rights to such resources unless the country invests time, money, labour and resources to collect and divert the water in accordance with the principle of equitable and reasonable use under international water law.[78]

CONCLUSION

Under both Islamic law and international law, transboundary water is a shared resource and common to all. Both systems recognise that one single owner (state) cannot claim a large transboundary river. In the case of contemporary international law, this is based on the principle of equitable and reasonable use along with the general duty of cooperation, due diligence with respect to causing significant harm, protection of transboundary watercourses and their ecosystems, amongst others. In the case of Islamic law, it is through application of the '*Anhar–e A'mmah*' (the public rivers) concept. Both Islamic law and international law encourage water management and accord to different extents higher importance of certain uses. Islamic law prioritises drinking water over water for cattle and irrigation, and international water law, while in principle not recognising any priority among uses, except agreement or custom to the contrary, knows the rule that in case of conflict of uses special regard is given to the requirements of vital human needs.[79] The approaches adopted by each legal system to manage transboundary rivers appear to be slightly different in the sense that Islamic water law recognises a 'prior appropriation right' or the so called 'historical use' rule while international law emphasises the 'equitable and reasonable' utilisation of transboundary watercourses. The concept of 'historical use' does not receive the same prominence in the equitable and reasonable utilisation principle. The criteria to be considered in order to assess whether a use is considered equitable and reasonable, list existing water uses as one of several criteria and together with potential water uses.[80]

Despite the fact that these two rules, namely the 'prior appropriation right' and the 'equitable and reasonable' utilisation rules, appear, at hindsight, to put Islamic law and international law in some conflict, a closer look at both systems reveals that these two systems are not only not in conflict in their approach to transboundary water management but they are consistent and supportive of each other. This is so for the following reasons.

First, Islamic law ties both its 'prior appropriation' and the so-called 'riparian rule' to the 'no harm' rule that is dominant across all Islamic legal regimes. This means that types of water use by any state regardless of being upstream or downstream must not harm other states. Unlike the controversy among international scholars over whether the 'equitable and reasonable' utilisation principle under Article 5 of the UN Watercourses Convention or the 'no significant harm' principle under Article 7 of the Convention is predominant, Islamic scholars have achieved consensus that the 'no harm' rule always prevails over any other conflicting rules. One must note that in the *Donauversinkung* case *(Württemberg and Prussia v Baden)*, the PCIJ said that 'a state's exercise of its sovereign rights with regard to international watercourses 'is limited by the duty not to injure the interests of other members of the international community … interests of the state in question must be weighed in an equitable manner against one another'.[81] In the words of Professor Stephen McCaffrey, '[t]he court treats harm (injury) not as an absolute, but as a relative thing'.[82] Therefore, one can

76 Authors' view.

77 Wickström (n 40), quoting N I Faruqui *Islam and Water* (United Nations University Press 2001) 12.

78 The 1997 UN Watercourses Convention art 5(1).

79 ibid art 10.

80 ibid art 6(1).

81 Jurisdiction of the European Commission of the Danube between Galatz and Braila, advisory opinion (1927) PCIJ Ser B.14.

82 McCaffrey *The Law of International Watercourses* (n 7) 244.

argue that both Islamic law and international law weigh the 'no harm' rule and the 'equitable utilisation' against one another and therefore, both systems recognise no preference for any of the said principles.

Secondly, Islamic scholars take the view that in the absence of binding rules in the Islamic legal regime that directly concern transboundary river basin management, the best approach should be to look to regional or international customs to resolve issues of water allocation. As discussed in this article, international law scholars also take the view that a rigid legal approach to use of the waters of a transboundary river basin usually does not work and that the best way to resolve such issues is co-operation and negotiation among the states involved to achieve an equitable result. This need for cooperation is also recognised in Article 6(2) of the UN Watercourses Convention, which requires states to consult in the spirit of cooperation as needed in the application of the equitable and reasonable use principles. Similarly, several scholars also argue that the 'equitable and reasonable' principle is a process that is and remains flexible, producing results that can change over time. When international custom and practice find cooperation more effective and Islamic law also refers such cases to international custom, there can be no conflict between the two systems.

While one of the important sources of Islamic law is Wisdom in cases where there is no provision found in the *Quran* and Traditions, sound wisdom and best judgment should bind all states to resolve their issues concerning transboundary water management through cooperation and by applying regional customs and avoiding conflicts that harm the states involved.

In addition, under the Islamic *la zarar wa la zeraar fil Islam* or 'no harm' doctrine that prohibits states from inflicting harm on themselves and others through conflict over transboundary rivers, states have a duty to cooperate to avoid harm to themselves and others. Consequently, in addition to the public rivers concept, the three rules we can infer from Islamic law relating to transboundary river management are to (i) apply regional custom; (ii) seek cooperation among states; and (iii) avoid harm to oneself and others. Similarly, international law prioritises cooperation among states over inflexible legal rules and encourages negotiation among states to arrive at mutually agreed solutions. Therefore, international law and Islamic law principles complement each other.