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ABSTRACT

The world is facing a severe disquietude about water scarcity, which is feared to lead to not only local or global chaos and conflicts, but also to bloody "war on waters". Scarcity and misuse of fresh water pose a serious and growing threat to sustainable development and protection of the environment, and the humans as well.

Islam as the second largest religion on the planet, with The Holy Prophet Muhammad (P.B.U.H.)as the sole means and source of Divine guidance from Allah Almighty, lead us to the understanding of importance of the Prophetic injunctions regarding the management and conservation of the hydro-resources. The scope of this article is to inquire and elaborate the above mentioned point, for which verses from the Holy Qur'an, along with qoutations from Ahadith and Seerah literature have been taken as data and studied. The article ends with the conclusion that: The injunctions of the Holy Qur'an, and the Holy Prophet (P.B.U.H.), clearly teach about the importance of water for life on earth, both for humans and animals as well. Various Ahadith of the Holy Prophet(P.B.U.H.) teach about the water management for human needs and agricultural use, local and transboundary management, even for animals; with prohibitions regarding monopolizing, polluting, and wastage of precious hydro-resources. It was recommended for further study that: A comparative study should be conducted to get acquainted by the teachings of other religions about the subject, and The teachings of the Holy Prophet (P.B.U.H.) should be explored and brought to surface regarding the management and conservation of other natural resources with collective environmental protection and preservation.

The qualitative approach is adopted in this analytical study. The published authentic data including, academic books, websites (after careful evaluation and assurance of their validity and reliability), alongside the Holy Qur'an and the books of Ahadith primarily, were used during the study. In addition, the academic consultation with senior scholars was also involved in this important study.

Key words: Hydro, Resource, Management, Conservation, Teachings, Prophet Muhammad (P.B.U.H.)

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Introduction

Allah Almighty has given humans mandate over His innumerable creatures and has given them to us for consumption. We are empowered to bring them under our control and use them for our own purposes. This high position gives human beings power over all resources, including water. But this power must be exercised with a sense of responsibility and accountability to both living beings, nature, and Allah Almighty as well. Human beings have a duty not to waste resources on pointless projects, nor to harm them unnecessarily. On the contrary, whenever human beings use these resources for their service, they should adopt methods which will benefit them more but minimize the loss of resources.

The world is facing a severe disquietude about water scarcity, which is feared to lead to not only local or global chaos and conflicts, but also to bloody "war on waters". Scarcity and misuse of fresh water pose a serious and growing threat to sustainable development and protection of the environment, humans live in. Human health and welfare, food security, industrial development and the ecosystems on which they depend, are all at risk, unless water and land resources are managed more effectively in the present decade and beyond, than they have been in the past.

Islam is the second largest religion on the planet, as every fifth person of the world is Muslim. Moreover, Islam is the official religion of many states, of which, many are facing water scarcity, serving as a hindrance in their socio-economic development. This fact leads to the understanding of importance of the religious role and Islamic injunctions regarding the management and conservation of the hydro-resources. As the policies to regulate and preserve the water sources are effected by social, cultural, economical, and political conditions, so, it is important to study the Islamic in contemporary scenarios, which can lead to better education of the problems of water management and conservation, and an effective implementation of the policies and regulations in this regard.

The equitable, efficient, and lasting steps for an effective hydroresource management and conservation are acknowledged by Islam as a whole, or with some conditions. So it is necessary to explore and understand the Islamic viewpoint about hydro resource management and conservation, which are essential for the formation and implementation of management and conservation policies.

Islam stresses a lot about purity, and for some of its core worships like *Salah* (prayer), *Tawaf* (circling around the *Ka'bah* during *Hajj* or *Umrah*), it is mandatory to have purity through ablution or taking bath (*Ghusul*), and taking bath is also mandatory after conjugation between

husband and wife, and so on. So, for this purpose, almost all of the *Hadith* books start with the "Book of Purity" (*Kitab al-Taharah*), or contain the said chapter somewhere in the queue of chapters.

Culture and religion have a profound influence the way people think about and manage it. That is why the importance of religion and local culture is recognized when formulating water conservation policy. Although the world is moving towards a materialistic culture in which the importance of religion is diminishing, however, researchers and policymakers acknowledge the failure of development projects that ignore local values, including religion .It is worth noting that Water conservation planning can be done in the light of Islam. Such projects will certainly be effective, because these projects rely on a natural method to deal with water scarcity. And the results will be much better than just plans made according to government regulations.

Literature Review

Although the issue of the hydro-resource management is a contemporary one, yet a genre of valuable literature is found in this regard.

In a scholarly work of Cecilia Tortajada, et.al., water management practices and modifications are addressed to cope with climatic and other related uncertainties over the next two to three decades; the types of strategies and good practices that may be available or have to be developed to cope with the current and expected uncertainties in relation to climate change; and the types of knowledge, information and technological developments needed to incorporate possible future climate change impacts within the framework of water resources management. Decision making in the water sector under changing climate and related uncertainties, and societal water security under altering and fluctuating climate are also discussed. Several case studies are included from several basins, cities, regions and countries in both developed and non-developing countries.

Effective water management in the Middle East has been discussed by Asit K. Biswas²,

describing the water management not only necessary for socio-economic development, but fearing as increasingly becoming a matter of war and peace. This book is based on the papers specially commissioned for the Middle East Water Forum, held in Cairo in February 1993. It covers the three major river basins and addresses the difficulties unique to the region's

¹ Cecilia Tortajada, et.al., Water Management and Climate Change: Dealing with Uncertainties, Routledge, 2016

² Asit K. Biswas, International Waters of the Middle East: From Euphrates-Tigris to Nile, Oxford University Press, 1994

countries. Topics include the historical background to the politics surrounding the Nile's water, problems inherent in international river management, the strategic and political problems surrounding the Jordan River, developments in the Nile basin and how water distribution can be more equitable, and recent developments in international water management.

In his another scholarly work, Asit K. Biswas, with Cecilia Tortajada, pursues a comprehensive approach so as to arrive at a better understanding of the implications of climate change on sustainable development, focusing on the perspective of water. Given that the majority of climate change impacts will be felt through the medium of water, the book explores the interrelationships and inter-linkages between water, climate change and sustainable development.

The important issue of trans-boundary hydro-resource and water bodies management has been discussed by Olli Varis, et.al.,² elaborating the depth of problem, describing water as interwoven in the various functions of the nature and the human society ,making water one of the most complicated challenges of the mankind today. The study portraits the human manipulative and exploitative role with regards to the trans-boundaries waters, with corrective measure suggestions.

The above mentioned studies are done by non-Muslims, applying scientific, political and secular parameters only, but, along with the above mentioned work, some valuable studies have been conducted by the Muslim scholars presenting the Islamic perspective and view over hydro-resource management, and water conservation.

Such a study has been conducted by Mariya Absar,³ to look at the future of fresh water availability and usage in the Muslim world, describing the importance of hydro-resources management. A water map, consisting of five hydro zones around the Muslim world, with profound and duly analyzed data is presented, leading to conclude that certain water efficiency measures and policies be designed to manage the fore coming water crisis

² Olli Varis, et.al., Management of Trans-boundary Rivers and Lakes, Springer Science & Business Media, 2008

¹ Asit K. Biswas, and, Cecilia Tortajada, Water Security, Climate Change and Sustainable Development, Springer, Singapore, 2015

³ Mariya Absar, Sayeda, *The Future of Water Resource Management In The Muslim World,* Journal of Future Studies, March 2013, 17(3), pp: 1-20, https://jfsdigital.org/wp-content/uploads/2013/10/173-A011.pdf1.pdf, accessed: 15-09-2021, 2:54PM

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in the Muslim world. The water management approaches should include nontraditional, cultural and spiritual approaches to mitigate the issue. The author used few quotations from Qur'an and *Ahadith* to elaborate the importance of water as described in them (under the heading of "myth and metaphor"), but, no clear rules or guidelines have been derived and deduced from the Qur'an and the *Sunnah*, yet the author suggested that the Islamic principles should be incorporated into water management policies and public awareness campaigns.

In an important Study, Najibullah Loodin¹ sought to compare and contrast Islamic Water Management Principles (IWMP) with International Water Law Principles (IWLP), stating that the IWMPs are not only in conformity with IWLPs, rather more effective, arguing that the IWMPs can solve the issue of equitable and sustainable use of water among the Muslim dominated riparian states. The author asserts the need of religious doctrines to be incorporated for water management. As the study has been confined to the Helmand River Basin issue between Afghanistan and Iran, the study suggested three principles of Islamic environmental ethics, namely: Principle of Unity (Tawhid), Trusteeship (Khilafah), and Responsibility. The author elaborated these principles by quoting few Qur'anic verses in an ethical and moral approach, pointing towards the Islamic water management principles in an indirect way. Surprisingly, the author used only one hadith in his whole valuable study, and no concrete rules and principles have been drawn and deduced from the verses of the holy Our'an and the *Ahadith* of the Holy Prophet (P.B.U.H.).

In his valuable treatise, Dr. Muhammad Ashraf² has described the importance of water as illustrated in the Qur'an and the *Ahadith* of the Holy Prophet (P.B.U.H.). Few examples from the history of the some prophets have also been described to elaborate the said point. The quality, quantity, usage, products, benefits and spiritual impacts of water have been described by quoting various Qur'an verses. Few water principles regarding prohibition of polluting, wasting, careless storage of water have been discussed briefly in an ethical and moral way, but no direct and extensive principles have been derived and deduced from the teachings of the Holy Prophet (P.B.U.H.). The study ends with various useful suggestions for the conservation and management of the hydro-resources with scientific and

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¹ Loodin, Najibullah, and Aaron Wolf, *Comparison And Contrast Of Islamic Water Management Principles with International Water Law Principles : A case Study of Helmand River Basin*, https://www.preprints.org, accessed: 15-09-2021, 2:54PM

² Muhammad Ashraf, Dr., Importance of Water in The Light of Qur'an and Sunnah and Ways of Its Saving, Pakistan Council of Research in Water Resources, Islamabad, 2005

material methods, deficient of any guidelines from Qur'an and the *Ahadith* of the Holy Prophet (P.B.U.H.).

An important article by Hussain Amery¹ describing the development of Islamically-inspired water management principles, stating that the Our'an and the hadith have relatively elaborate strategies for water conservation and pollution prevention, hoping to attain a wider acceptability and broader compliance by the Muslims. Inspired by a view, that such water management principles arising from a specific cultural context may act as a framework for the management of other natural resources. The author aimed to draw some Islamically-grounded principles to incorporate in water management policies, summarizing these principles as an advocacy of wise use of water. While stressing to formulate Islamically-grounded water management principles (describing them as non-traditional, cultural and spiritual approaches), the author elaborated the importance of water, water rights for animals, provision of public drinking water facilities, conservation of water quality and quantity, from the quotation of various verses from the Holy Qur'an and sayings of the Holy Prophet (P.B.U.H.). But the whole case has been presented in an ethical and moral way, with no direct derivation of rules from the Islamic injunctions quoted. The author concluded that although the doctrinal basis of Islamic water management are present, yet Muslim scholars should do *Ijtihad* to deal with new developments and challenges being experienced in daily living.

It is striking to note that the above mentioned valuable studies have urged to develop a profound set of hydro-management principles derived and deduced from the Holy Qur'an and the *Sunnah*, but have done less than enough to achieve the desired goal, confining themselves to mere ethical and moral interpretations and applications of the Islamic injunctions, without deriving and deducing direct rules and concrete principles.

Secondly, it is also astonishing to notice that the findings and suggestions of these studies have been presented (consciously or unconsciously) to Muslims, and for the Muslim majority world regions only, and not as a universal set of guidance, to be adopted by the Muslims and non-Muslims equally. This attitude can be misrepresented as an apologetic one, as giving a silent message to the non-Muslim world that they can find their own secular ways of problem solving, independent of Islam. Viewing this, the scope of this study is not only to describe and elaborate direct and concrete hydro-management rules and principles based

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¹ Amery, Hussain A., *Islamic Water Management*, Water International, International Water Resource Association, 26(4), December 2001, pp. 481-489

on the teachings of the Holy Prophet (P.B.U.H.), but to present them as a universal set of guidance to be accepted and applied globally.

Contemporary Reforms Efforts

The UN Food and Agriculture Organization first looked at the issue of water rights in Muslim countries in 1954, and later in 1973 published a study on the subject of water laws in Muslim countries. This was confirmed by a broad consensus at the United Nations Conference on Environment and Development in Rio de Janeiro in June 1992, that the water resources system needs reforms, and for this purpose, along with the public awareness campaign, legal and institutional changes are also required. In 1996, the World Health Organization published a new series of booklets on health education through religion, in which the topics of water and environmental health in Islam were discussed.

Dublin Principles:

In Dublin, Ireland, on 26-31 January 1992, five hundred participants, including government-designated experts from a hundred countries and representatives of eighty international, intergovernmental and non-governmental organizations attended the International Conference on Water and the Environment (I.C.W.E.), which can be considered as a major landmark to discuss and resolve the issue of global water crisis. The experts saw the emerging global water resources picture as critical. At its closing session, the Conference adopted this Dublin Statement and the Conference Report. The problems highlighted are not speculative in nature; nor are they likely to affect our planet only in the distant future. They are here and they affect humanity now. The future survival of many millions of people demands immediate and effective action.⁴ In commending this Dublin Statement to the world leaders assembled at the United Nations Conference on Environment and Development (U.N.C.E.D.) in Rio de Janeiro in June 1992, the Conference participants urge all governments to study carefully the specific activities and means of implementation recommended in the Conference Report, and to translate those recommendations into urgent action programs for concerted action is needed to reverse the present trends

¹ Faruqi, Nasir I., et.al., *Islam men Pani ka intzam*,Oxford University Press, 2006, p: ל

² Report of the United Nations Conference on Environment and Development Rio de Janeiro, 3-14 June 1992 Volume I Resolutions Adopted by the Conference United Nations . New York, 1993, p:275ff, downloaded from: https://undocs.org/en/A/CONF.151/26/Rev.1(vol.1), Dated: 15-09-2021, 2:34PM

اً Islam men Pani ka intzam, p: اگر

⁴ https://www.gdrc.org/uem/water/dublin-statement.html, accessed: 15-09-2021, 3:24 PM

of overconsumption, pollution, and rising threats from drought and floods.¹ The Dublin Conference Report sets out recommendations for action at local, national and international levels, based on following guiding principles.

Principle No. 1- Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment.²

The theme of this principle is that, since water sustains life, effective management of water resources demands a holistic approach, linking social and economic development with protection of natural ecosystems. Effective management links land and water uses across the whole of a catchment area or groundwater aquifer. This principle resonates with the following verse of the Holy Qur'an:

"Say, tell me should your water vanish into the earth, who will bring you a flowing

(stream of) water?"3

Principle No. 2 - Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels.⁴

The participatory approach involves raising awareness of the importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate level, with full public consultation and involvement of users in the planning and implementation of water projects. This concept of community participation and consensus building in Islamic water management is well established. For example, on the occasion of the Battle of Badr, the tents were set up near the water wells, accepting the advice of Hubab ibn al-Mundhir for the encampment of the Muslim army.⁵

Principle No. 3- Water has an economic value in all its competing uses and should be recognized as an economic good.⁶

Within this principle, it is vital to recognize first the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving

ai-wiik, 07. 50

¹ https://www.gdrc.org/uem/water/dublin-statement.html, accessed: 15-09-2021, 3:24 PM

² https://www.gdrc.org/uem/water/dublin-statement.html, accessed: 15-09-2021, 3:24 PM

³ al-Mulk, 67: 30

⁴ https://www.gdrc.org/uem/water/dublin-statement.html, accessed: 15-09-2021, 3:24 PM

⁵ Ibn e Hisham, Abu Muhammad Abd al-Malik al-Himyari, *al-Seerat al-Nabwiyyah*, Dar al-Kitab al-Arbi, Beirut, ed.:3, 1990, vol.: 2, p: 263

⁶ https://www.gdrc.org/uem/water/dublin-statement.html, accessed: 15-09-2021, 3:24 PM

efficient and equitable use, and of encouraging conservation and protection of water resources. Although Some Muslims have said before and after the Dublin conference that Islam is against the sale of water and the reuse of wasted water. According to them, specified allocation of water through market forces is forbidden in Islam.

The fundamental idea of the Dublin conference was that, if water and land resources are not well managed, human health, food security, economic development, the ecosystem will all be at risk. This is in line with the basic concept behind Islamic water management. As following verse highlights the value of water, like;

"We have created every living organism from water."2

Qur'an and Importance of Water:

Water is very important in Islam. It is considered as a blessing of Allah Almighty which is both life-giving and life-sustaining. So in the Holy Qur'an, the importance of water is evidently elaborated.

The Arabic word for water is "Maa", which appears 54 times in the Qur'an. Even while describing the beauty of the Jannah, Allah Almighty has repeatedly told about the "Gardens beneath which rivers flow"³. The Qur'an mentions rain water as the Ghaith (blessed help).⁴ While it is explicitly elaborated in the Holy Qur'an that the amount of water on the planet is not only fixed, but its withdrawal is also possible, or even inevitable, as stated in the following verse:

"And we sent down water from the sky in due measure, then we lodged it in the earth, and of course, we are able take it away.⁵ Thus, all human beings depend on water for their life and health, but among Muslims, it is of special importance in terms of ablution and *ghusl* (bath), to perform their some of very fundamental worships.

Importance of water in *Hadith***:**

If the Qur'an is a compass for Muslims, then the *Sunnah* of the Prophet (P.B.U.H.) is like a map for human travel on this planet. The water is the second in creation and importance, after the Throne ('*Arsh*) of Allah Almighty, as is stated in a hadith that:

"Allah was there, when there was no one besides Him, and His throne was on the water."

¹ Islam men Pani ka intzam, P:45

² al-Anbia,21:30

³ Like; al-Baqarah, 2: 25, 74...and many other places etc.

⁴ Luqman, 31: 34; and, al-Shura, 42: 28

⁵ al-Muminun, 23:18

⁶ Bukhari, Muhammad bin Ismael bin Ibrahim, al- Jami al-Musnado al- Sahih al-Mukhtasaro min Umoor e Rasulullahi (P.B.U.H.) Sunanihi wa Ayyamihi, edt.: Zuhair bin

This fact is in resonance of the verse of the Holy Qur'an, where it is stated that:

"He is the One who created the heavens and the earth in six days, while his throne was on water." 1

While elaborating the purification attribution of water, the Holy Prophet (P.B.U.H.) declared the oceanic,² as well as, any common water³ to be pure, and resembling prayer to the purification attribution of water, it is narrated in a hadith that, such is the example of the five daily prayers

"...as a canal,...in which he takes a bath five times a day."4

Trans-boundary water Management:

International consensus on global water management is enshrined in the provisions of the International Law Commission, which was adopted by the General Assembly in 1997, following were the important principles:

- 1- Fair and reasonable use of international rivers.(Article:5)
- 2- Avoid huge losses and compensation. (Article:7)
- 3- Mutual co-operation between riverine states. (Article: 8)
- 4- Protection and maintenance of international rivers as well as ecosystems. (Articles: 5, 8, 20, 21)⁵

All these principles can be summed up in one decree of the Holy Prophet (P.B.U.H.), narrated as:

"Neither to harm, nor to be harmed."6

Nasir, Dar Towq al-Najah, Berut, ed.: 1st, 1422 A.H., *Kitab Bad'u al-Khalq, Bab: ma Jaa fi qowlillahi Ta'ala 'Wa howallazi yabda'ul Khalqa summa Yu'eeduho, Hadith*: 3191 ¹ Hud. 11: 7

² Abu Dawood, Suleman bin Ash'ath al-Sijistani, *Al-Sunan*, ed.: Shu'aib al-Arnawut, wa Muhammad Kamil Qurrah, Dar al-Risalat al-Almiyah, Berut, Ed.:1, 1430AH, *Kitab al-Taharah*, *Bab: al-wudu'i bima'i al-bahri*, *Hadith*: 83; And, Tirmizi, Abu 'Isa Muhammad bin 'Isa, *Al-Sunan*, Ed.: Ahmad Muhammad Shakir, Dar e Ahya al-Turath, Berut, *Kitab al-Taharah*, *Bab: ma jaa fi maa'i al-bahri tahurun*, *Hadith*: 69

³ Abu Dawood, Kitab al-Taharah, Bab: al-maai la yajnubu, Hadith: 68; And, Tirmizi, Kitab al-Taharah, Bab: ma jaa anna al-maa la yunajjisuhu shai'un, Hadith: 66; And, Katab al-Sowm, Bab: ma jaa ma yustahabbu 'alaihi al-iftar, Hadith: 698

⁴ Muslim, Abu al-Hassan Ibn al-Hajjaj al-Qusheri, *Al-Jami'u al-Sahih*, Darul Jeel wa Darul Afaq al-Jadeedah, Berut, *Kitab al-Masajid, Bab: al-mashiu liasslati tumha bihi al-Khataya wa turfa' bihi al-darajat, Hadith*: 1555

⁵ Convention on the Law of Non-Navigational Uses of International Watercourses (New York, 21 May 1997) (not yet in force) (UN Watercourses Convention). https://onlinelibrary.wiley.com/doi/full/10.1111/j.1467

^{9388.2009.00640.}x , Accessed: 15-09-2021, 2:34PM

⁶ Ahmad, Musnad, Abu Abdullah Muhammad bin Hanbal, *Musnad*, ed.: Shu'aib al-Arnawut, wa Adil Murshad, Muassat al-Risalah, Berut, Ed.: 1, 1421 AH/2001CE, *Wa Min*

And in this regard, guidance can be taken from another hadith that:

"A believer is not one who sleeps with his stomach filled, and his neighbor sleeps hungry". 1

This hadith applies to both eating and drinking, and the neighborhood not only includes individuals, but also states too, whether Muslim or non-Muslim. Therefore, in the light of these *Ahadith*, guidance can be found in resolving various international disputes over the issue of water.

Principle of Well Digging

According to a hadith, the ownership of wells or other water resources requires that to a certain extent (up to forty hands), the surrounding land or *hareem* be in the possession of the same owner, in which digging another well is prohibited, so that he might be able to let his cattle to drink water and to sit (at rest).² This order also signifies the fact that there would be no adverse effect on the quantity or quality of well water.³

Agricultural irrigation management

The Prophet (P.B.U.H.) declared that the land on the elevation should be irrigated first, and the land below should be irrigated later,⁴ and ordered that the amount of water should be saved only above the ankles.⁵ It is as if irrigation has been prohibited according to one's own whims.

Water for Animals:

Allah Almighty has described in the Holy Qur'an, that:

"There is no creature moving on earth, nor a bird flying with its two wings, but they are all communities like you".

Therefore the Muslims are taught to take care of animals, as they take care of fellow humans. So it has been told in a hadith that a man was forgiven

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musnadi bani Hashimin, Bidayatu musnadi Abdullah ibn e Abbas: Hadith: 2719; And, Ibn e Majah, Muhammad bin Yazeed al-Quzwaini, al-Sunan, Ed.: Muhammad Fuwad Abdulbaqi, Dar al-Fikr Berut Kitab al-Ahkam, Bab: Man Bana fi haqqihi ma yadurru bijarihi, Hadith: 2331

¹ Behaqi, Abu Bakr Ahmad bin al'Hussain, al-Sunan al-Kubeer, Dar al-Kutub al-

^{&#}x27;Ilmiyah, Berut, 1424 AH, Jama' Abwabi maa laa Yahillu ukalahu wama yajuzu lilmudtarri minal maitati wa ghaira zalik, Bab: sahibul maali la yamna'u al-Mudtarri fadlan in kana 'indahu

² Ibn e Majah, Kitab al-Ahkam, Bab: Hareem al-Bi'ri, Hadith: 2477

³ Islam men pani ka intzam, p: 93

⁴ Bukhari, Kitab al-Masaqat, bab: Shurbil a'la qablal asfali, Hadith: 2361; And, Tirmizi, Kitab al-Ahkamu 'an Rasulillahi, Bab: Maa jaa fi al-rajuleni yakunu ahaduhuma asfala minal aakharu fil maa'i, Hadith: 1283

⁵ Bukhari, Kitab al-Masaqat, bab: Shurbil a'la ila al-ka'baini, Hadith: 2189

⁶ al-An'am, 6: 28

for his sins just because he let a dog to quench his thirst. And in a similar situation, Allah Almighty even forgave a prostitute for her sins, when she helped a dog quenching his thirst. Likewise, once the Prophet (P.B.U.H.) encouraged one of His companions to let stray camels to quench their thirst from his private pond, and ensured him for the reward from Allah Almighty. And The Holy Prophet (P.B.U.H.) went so far to deter people who do not let stray animals to quench their thirst from their ponds that He said swearing:

"By God who has my life in His hands, most certainly I will chase some people out of my pool (The kauthar), like they chase out the stranger camels from their pools."⁴

Similarly in another hadith, it has been said that, No one has the right to stop other animals from drinking their surplus water, and thus keep them away from their surplus grass.⁵

Water conservation:

Saving water is a well-established concept in Islamic teachings. This is a way of life that a Muslim should follow all his whole life. This is not to say that this method should be adopted only temporarily or on special occasions in case of water scarcity. These teachings are in accordance with the command of the Qur'an in which the Holy Qur'an tells the human beings to use the earth resources for its survival and living, but prohibits from the dissipation of these resources, as has been stated in the Holy Qur'an:

"Eat and drink but waste not by excess, for He (the Allah) loveth not the extravagant".6

So, in *Ahadith*, it is told that the Holy Prophet (P.B.U.H.) used to have ablution with one "*Mudd*" (3/4 liter) of water, and used to perform "*Ghusul*" with one "*Saa*" (equavalent to five "*mudds*", or about 2-31/2 liters). Moreover, the Holy Prophet (P.B.U.H.) has warned of a devil, who prompts of wasting water during ablution, as has been narrated:

¹ Bukhari, Kitab al-Msaqat, Bab: Fadli saqyi al-maa'i, Hadith: 2363

² Bukhari, Kitab AHadith al-Anbiya, Bab: Qowl al-Nabiyyu Salla Allahu 'alaihi wasallam benama 'imra'atun tarda'u ibnaha, Hadith: 3466

³ Ahmad , *Musnad al-mukassirina min al-Sahabah, Musnadi Abdullah ibni Amr* (RA), *Hadith*: 6778; And , Ibn e Majah, *Kitab al-Adab, Bab: Fadlo Sadaqat al-maa'I, Hadith*: 3676

⁴ Bukhari, Kitab al-Msaqat, Bab: Man ra'a anna sahibal houzi wal qirbati ahaqqu bimaa'ihi, Hadith: 2367

⁵ Bukhari, *Kitab al-Msaqat, Bab: Man ra'a anna sahibal maa'iahaqqu bil maa'i hatta yarwey, Hadith*: 2353, 2354

⁶ al-Aa'raf, 7:31

⁷ Bukhari, Kitab al-Wudu, Bab: al-Wudu bil mudd, Hadith: 201

"There is a devil for ablution, it is called walhan, you should avoid spending more water because of its whispers." 1

This hadith is a manifestation of a logical view of the use of water in the desert environment of Arabia. However, even in cases where there is an abundance of water, it is also forbidden to waste it, as is stated in a narration that extravagance while performing ablution is forbidden, even sitting on the bank of a flowing canal". This matter is pointed out in the Holy Qur'an as:

"Calamities have appeared on land and sea because of what the hands of the people have earned."³

This calamity is mentioned with reference to land and sea, and this concept covers all the components of the ecosystem. Because this causes improper exploitation and degradation of environmental resources, including the water resources as well. That is why Muslims have been given the right to rule and manage the natural world, but they have been forbidden from the cruel conquest of God's creation. As according to the Holy Qur'an, Muslims are commanded not to desecrate the signs of God Almighty, while stating:

"O you who believe! Profane not Allah's marks."4

And in many verses, water and other creatures are described as signs of Allah Almighty. That is why, the Holy Qur'an emphasizes refraining from

Munkar,⁶ and it also includes the pollution and wastage of natural resources, because they also fall into a kind of injustice, by destroying the ability of present and future generations to meet their needs.

Prohibition of monopoly

Islam is an inclusive religion, and it stresses, or motivates its followers to remain united, and to cast away any bit of selfishness. On the contrary, it encourages sacrificing one's own desires for his Muslim brother. As this act, exhibited by the *Ansar* of Medina, has been praised in the Holy Qur'an that:

"...those...do not feel in their hearts any ambition for what is given to the former ones (the migrants from Makkah), and give

¹ Tirmizi, *Kitab al-Taharah*, *Bab: Maa jaa fi karahiyatil israafi fil wudu'i bil maa'i*, *Hadith*: 57 (According to Imam Tirmizi, its authenticity is week)

² Ahmad, Musnad, Musnadul mukathsirina min al-Sahabah, Musnad Abdullah bin 'amr bin al-'Aas (RA), Hadith: 6768; And, Ibn e Majah, Kitab al-Taharah wa Sunaniha, Bab: Maa jaa fil qasdi fil wudu'i wa karahatu al-ta'addi fihi, Hadith: 419

³ al-Rum, 30-41

⁴ al-Maidah, 5:2

⁵ like, al-Nahal, 16:65; and, Fussilat, 41: 39 etc.

⁶ Aal e Imran, 3: 104, 110, 114; al-Tawbah, 9:71, 112; al-Nahal, 16: 90; al-Nur, 24:21 etc.

preference (to them) over themselves, even though they are in poverty." 1

So, this is the morality which Islam wants to see in its adherents and this personality, which The Holy Prophet (P.B.U.H.) wished to develop of His followers by advising that:

"None of you can become a Muslim unless he chooses for his brother what he likes for himself."²

Obviously, this applies to the desire for abundant clean and fresh water as well as to the desire for something else. Therefore, it is prohibited for a Muslim to store water more than his needs, and he is required to give others the opportunity to benefit from it. As is told in a hadith that, among three of those ignored (of mercy) and unpurified (of sins) by Allah Almighty on the Day of Judgment, one will be that person, Who has a surplus amount of water, and does not allows travelers to benefit from it. While in another hadith, it is stated that Allah Almighty will not even (like to) talk to such a person on the Day of Judgment. 4That is because; The Holy Prophet (P.B.U.H.) has declared the water as a collective societal resource, along with grass (pasture) and fire,⁵ and has advised strictly not to forbid people from taking spare water (for their needs), 6 or Allah Almighty will deprive him from His grace.⁷ That is why, instead of monopolizing the water resource, the Holy Prophet (P.B.U.H.) not only forbade to sell the spare water,8 but stated the sharing of water (for free) with others as a "Sadagah" (charity)⁹, and encouraged the people to endow it for the sake of Allah Almighty, ¹⁰ as can be seen in the example of Hazrat Uthman Ghani, who did so, when he endowed the well of "Romah" at the motivation of the

² Bukhari, Kitab al-Iman, Bab: Minal Imani ain Yuhibba liakheehi ma yuhibba linafsihi, Hadith: 12

¹ Al-Hashar, 59:9

³ Bukhari, Kitab al-Masaqat, Bab: Ismun man mana' ibn al-sabeeli min al-maa'i, *Hadith*: 2358

⁴ Abu dawood, Kitab al-Ijarah, Bab: Fi man'il al-maa'i, Hadith: 3476

⁵ Abu dawood, *Kitab al-Ijarah*, *Bab: Fi man'il al-maa'i*, *Hadith*: 3479

⁶ Bukhari, *Kitab al-Masaqat, Bab: Man qala inna sahibal maa'i ahaqqu bil maa'i hatta yarwe, Hadith*: 2353, 2354

⁷ Bukhari, Kitab al-Msaqat, Bab: Man ra'a anna sahibal houzi wal qirbati ahaqqu bimaa'ihi, Hadith: 2369

⁸ Muslim, Kitab al-Masaqat, Bab: Tahrimi bai'i fadlil maa'illazi yakunu bilflati wa yuhtaju ilehi lira'yil kala'i, Hadith: 4087

⁹ Tirmizi , Kitab al-Birru wa al-Silati, Bab: ma jaa' fi Sna'i ma'rufi, Hadith: 2083

¹⁰ Abu Dawud, Kitab al-Zakat, Bab: Fi fadli saqyal maa'i, Hadith: 1684

Holy Prophet (P.B.U.H.). And provision of gratis water has been recommended for those, who want to do a charity in the name of their deceased relatives.²

Prohibition of water pollution:

Islam attaches great importance to establish perfect harmony between spiritual and physical purity. Physical purity cannot be achieved without ablution and *ghusl* (bath), and for both of them, clean water is essential. Therefore, the purity and cleanliness of water is mentioned in various traditions.

According to a hadith, it has been prohibited to urinate and to have *Ghusul-e-janabat* (bathing after conjugation) in the stagnant water.³ So, it is quite obvious that if it is prohibited to pollute water with urine, then it would be a greater sin to pollute water with industrial, or other major pollutants.

Prohibition of water selling:

In the days of ignorance, there were no rules about water in Arabia. The wells were either owned by the entire tribe, or by the person whose ancestors dug them. In both of the cases, the owners of the wells, whether tribal or individual, charged a fee to draw water from stranger tribes, whether these tribes themselves were fetching water for their own drinking, or to quench their animal's thirst. It was common to sell water because of its ownership, which caused the bloody riots very often. In fact, the Holy Prophet's (P.B.U.H.) effort was to ensure that all members of society had access to water so that it would not fall into the hands of a single person, and that they would not start hoarding it. Therefore, the Holy Prophet (P.B.U.H.) prohibited selling the spare water. However, the concept of ownership over water resource is acknowledged in Islam, as can be elaborated in a narration which states Hazrat Hajrah (AS) to hold the possession of the water of *Zamzam*. It is important to keep in mind that the classification of water in terms of ownership can be as follows:

a- Private ownership:

¹ Bukhari, Kitab Fadail al-Sahabah, Bab: Managibi Uthman Bin Affan (RA), Hadith: 3695

² Abu Dawud, Kitab al-Zakat, Bab: Fi fadli saqyal maa'i, Hadith: 1681, 1683

³ Muslim, *Kitab al-Taharah*, *Bab: al-nahi 'anil boli fil maa'i al-rakidi*, *Hadith*: 681. 682, 683, ;and, *Bab: al-nahi 'anil ightisali fil maa'i al-rakidi*, *Hadith*:684

⁴ Islam men pani ka intzam, p: 118

⁵ Muslim, Kitab al-Musaqat, Bab: Tahrimi bai'i fadlil maa'i allazi yakunu bilflati wa yuhtaju ilehi lira'yil kla'i, Hadith: 4087, 4091

⁶ Bukhari, Kitab al-Msaqat, Bab: Man ra'a anna sahibal houzi wal qirbati ahaqqu bimaa'ihi, Hadith: 2368

This is the water in which investment has been made in the form of labor, provision of basic services and information. eg. private water tanks, cleaning plants, distribution system and reservoirs etc. The owner of this water has a right to use, or trade it.

b- Limited Private ownership:

This water includes huge ponds, water channels, micro dams, which are constructed by using, or reshaping of geo/land-features. The owner of limited private water enjoys few privileged rights as compared to others, with some obligations also. Like, if someone is in a critical physical condition, or fearing certain life or health injuries, can trespass the private water to quench his thrust and save his life, as no one has a right to confiscate the superfluous water.¹

c- Public ownership:

This water is in the forms of glaciers, sub-soil water, sea, snow, and rain, which cannot be bought or sold in its pure natural form. But, if someone erects a structure to convert it into drinkable or commonly useable water, makes a distribution system, then it also becomes private water, and the money invested in this regard can be charged.

It should stand clear that although water charity is strongly encouraged in Islam, but the owner of private water should not be compelled to distribute it for free, or to sell at any controlled/ fixed price, because the Holy Prophet (P.B.U.H.) refused to intervene in the market to compel them to adopt a controlled/ fixed price saying:

"It is Allah who sets the price, the Sustainer, the Provider. And I wish that when meet

Allah, there will be no one to ask me for any physical or financial injustice."²

So, within these limits, their owner can buy and sell water like any other commercial commodity. These traditions can be used to protect water resources, especially those underground, which can, not only be affected, but also be depleted by over-pumping. In these cases, the prohibition of harm and overuse also prevails over the freedom of action.³ For this, the jurists have to formulate a way to act upon the hadith prohibiting the selling

¹ Bukhari, Kitab al-Msaqat, Bab: Man ra'a anna sahibal houzi wal qirbati ahaqqu bimaa'ihi, Hadith: 2369

² Abu Dawood, *Kitab al-Buyu'*, *Bab: fi al-Tas'eer*, *Hadith*: 2994; And, Tirmizi, *Katab al-Buyu' an rasulillahi*, *Bab: maa jaa fi al-Tas'eer*, *Hadith*: 1235; And, Ibn e Majah, *Kitab al-Tijarat*, *Bab: man kariha an yussa'ir*, *Hadith*: 2191

³ Islam men pani ka intzam, p: 133

of water. While, efforts will be made to thwart it to become a lucrative business, as some modern companies are doing in the name "bottled water".

Conclusion

It can be concluded from the above lines that, like other spheres of life, Islam have a solid and universal guidance for hydro-resource management and conservation also, both for individuals and states. The injunctions of the Holy Qur'an, and the holy Prophet (P.B.U.H.), clearly teach about the importance of water for life on earth, both for humans and animals as well. Various *Ahadith* of the Holy Prophet teach about the water management for human needs and agricultural use, local and transboundary management, even for animals; with prohibitions regarding monopolizing, polluting, and wastage of precious hydro-resources.

It is important to state that the hydro-management rules and principles derived from the teachings of the Holy Prophet (PBUH) are universal, and can be adopted and applied globally.

Recommendations

- **a-** A comparative study should be conducted to get acquainted by the teachings of other religions about the subject.
- **b-** Islamic viewpoint about the recycled water should be explored and discussed at length to use this resource of water.
- **c-** The rules described in this study should be further elaborated in the light of *Fiqh* for a more comprehensive and detailed policy making process.
- d- The teachings of the Holy Prophet (P.B.U.H.) should be explored and brought to surface regarding the management and conservation of other natural resources like fuels, minerals, woods, livestock, with collective environmental protection and preservation teachings.

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