

Foundation:

An Introduction to Quranic Principles on Water Environmental Management

*Arieff, S.R., Selamat, H., and Farahwahida, M.Y.

Centre of Research in Fiqh Science and Technology,
K-Economy Research Alliance, Universiti Teknologi Malaysia, Malaysia.

Abstract: Qur'an as the primer resource for Islam gives a significant focus on water. As Muslim who believes in Allah, has to submit his idea based on the teaching of Allah's word in Qur'an. Therefore, this study analyzed Quranic principles on water environmental management. Thematic methodology used as the word water in Qur'an has been analyzed.

Keywords: *Cleanliness, God's servant, God's vicegerent, Purification, Water governance, Water management*

1. Introduction

The Arabic word for water (*ma'*) occurs sixty-three times in the Qur'an ('Abd al-Baqi, 1992). This means that Qur'an gives a significant focus on water. As Qur'an and hadith are two primary sources for Islam, this article discussed on both principles regarding water and its management. This intro discussion try to explore towards 'the ultimate goal of promoting equity, efficiency, and sustainability for holistic and integrated water environmental management' (Faruqui 2001) based on the Qur'an and hadith.

2. Quranic Principles on Water Management

Based on the Quranic verses, there are principles regarding water management:

2.1. Man as a servant of Allah

Allah says, "I have only created Jinns and men, that they may serve Me. No Sustenance do I require of them, nor do I require that they should feed Me. For Allah is He Who gives (all) Sustenance,- Lord of Power,- Steadfast (for ever)." (Qur'an: al-Dhariyat 51:56-58)

Maududi (w.y.: 161-162) said the meaning of the verses, that is Allah said, "I have not created them for the service of others but for My own service. They should serve Me, for I am their Creator. When no one else has created them, no one else has the right that they should serve him; and how can it be admissible for them that they should serve others instead of Me, their Creator?" Here, the question arises that Allah Almighty is not the Creator only of the jinn and men but of the entire Universe and of everything in it. Then, why has it been said only about the jinn and men that He has not created them for the service of others but of Himself? Whereas every single creature is there to serve Allah. The answer is: On the earth only the jinn and men have been granted the freedom that they may serve Allah within their sphere of choice if they so like; otherwise they can turn away from Allah's service as well as serve others beside Him. The rest of the creatures in

the world do not have this kind of freedom. They do not have any choice whatever that they may not worship and serve Allah, or may serve any other. Therefore, only about the jinn and men it has been said here that by turning away from the obedience and servitude of their Creator within the bounds of their option and choice and by serving others than the Creator, they are fighting their own nature. They should know that they have not been created for the service of any other but the Creator, and for them the right way is that they should not abuse the freedom granted them, but within the bounds of this freedom also they should serve God voluntarily just as every particle of their body is serving Him involuntarily in the sphere where they have not been granted any freedom.

The word *'ibadat* (service, worship) in this verse has not been used in the sense of only prayer, fasting and other kinds of such worship so that one may understand that the jinn and men have been created only for performing the Prayer, observing the Fast and for praising and glorifying Allah. Although this sense also is included in it, this is not its complete sense. Its complete sense is that the jinn and men have not been created for the worship, obedience and carrying out of the orders of any other but Allah. They are not there to bow to any other, to carry out the orders of any other, to live in fear of any other, to follow the religion enjoined by any other, to look upon any other as the maker and destroyer of ones destiny, and to supplicate any other than Allah for help (ibid). Managing the usage of water in daily life also under the meaning of *'ibadah* in Islam. And so as men to manage the environment, they have to obey Allah's orders based on the holy Qur'an and the hadith of the Prophet's Muhammad *sall Allaahu 'alay-hi wa- sallam* (May Allah pray on him and grant him peace).

2.2. Man as a vicegerent of Allah

Allah says, "Behold, thy Lord said to the angels, 'I will create a vicegerent on earth.' They said, 'Wilt Thou place therein one who will make mischief therein and shed blood? Whilst we do celebrate Thy praises and glorify Thy holy (name)?' He said, 'I know what ye know not.'" (Qur'an: al-Baqarah 2:30)

Vicegerent as so called 'Caliph' means one who exercises the delegated powers on behalf of another as his

*: Corresponding author: aswar@utm.my, 81310-Skudai, Johor, Malaysia.

vicegerent. Caliph thus is not the master, but deputy of the Master; his powers are not his own but delegated to him by the real Master. He has, therefore no right to have his own will but he is there to fulfil the will of the delegating Authority. It would be dishonesty and treason, if he assumed sovereign powers, or used them according to his own whim, or if he acknowledged another as his sovereign and submitted to his will. (Maududi w.y.:65)

Man as the vicegerent of Allah has to manage his life based on the order of Allah includes managing usage of water in daily life. Khalid (1996) states that, "We are more than friends of the Earth - we are its guardians. Although we are equal partners with everything else in the natural world we have added responsibilities. We are decidedly not its lords and masters." These responsibilities lie under the meaning of human as Allah's vicegerent on the earth. As Faruqui (2001) says, "Although humans are the most favoured of God's creation, we also are responsible for ensuring that God's gifts are available to all living things."

2.3. Water is the symbol of life

Water is, by the will of God, the sole basis for the emergence of life (Bouguerra 2005). As Allah says, "Do not the Unbelievers see that the heavens and the earth were joined together (as one unit of creation), before we clove them asunder? We made from water every living thing. Will they not then believe?" (Qur'an:al-Anbiya' 21:30). "It is He who has created man from water: then has He established relationships of lineage and marriage: for thy Lord has power (over all things)." (Qur'an: al-Furqan 25:54)

Every life on earth owes its existence to the element of water (Bouguerra 2005). Based on Allah's saying: "And among His Signs, He shows you the lightning, by way both of fear and of hope, and He sends down rain from the sky and with it gives life to the earth after it is dead: verily in that are Signs for those who are wise." (Qur'an: al-Rum 30:24)

Water is therefore blessed, endowed with purifying powers by its role in the flourishing of all forms of life, and made sacred (Bouguerra 2005). Allah says, "Remember He covered you with a sort of drowsiness, to give you calm as from Himself, and he caused rain to descend on you from heaven, to clean you therewith, to remove from you the stain of Satan, to strengthen your hearts, and to plant your feet firmly therewith." (Qur'an: al-Anfal, 8:11). "And We send down from the sky rain charted with blessing, and We produce therewith gardens and Grain for harvests; And tall (and stately) palm-trees, with shoots of fruit-stalks, piled one over another;- As sustenance for (Allah's) Servants;- and We give (new) life therewith to land that is dead: Thus will be the Resurrection." (Qur'an: Qaf 50:9-11)

2.4. Proper governance of water

Qur'an called for the proper governance of water, that all entire universes may make use of it: "And remember Moses prayed for water for his people; We said, 'Strike the rock with thy staff.' Then gushed forth there from twelve springs. Each group knew its own place for water. So eat and drink of the sustenance provided by Allah, and do neither evil nor

mischief on the (face of the) earth." (Qur'an: al-Baqarah, 2:60)

The leader of the community has to govern the usage of water as to make sure the people live in harmony and obey Allah: "When Talut set forth with the armies, he said, 'Allah will test you at the stream: if any drinks of its water, He goes not with my army: Only those who taste not of it go with me: A mere sip out of the hand is excused.' But they all drank of it, except a few. When they crossed the river,- he and the faithful ones with him,- they said, 'This day we cannot cope with Goliath and his forces.' But those who were convinced that they must meet Allah, said, 'How oft, by Allah's will, hath a small force vanquished a big one? Allah is with those who steadfastly persevere.'" (Qur'an: al-Baqarah, 2:249)

The leader should govern the water wisely that once the people is facing the natural disaster such shortage of water supply, the still can live in harmony. Qur'an stated how Prophet Yusuf proposed the idea based on the dream of King: "'O Joseph!'" (He said) "O man of truth! Expound to us (the dream) of seven fat kine whom seven lean ones devour, and of seven green ears of corn and (seven) others withered: that I may return to the people, and that they may understand." (Joseph) said: "For seven years shall ye diligently sow as is your wont: and the harvests that ye reap, ye shall leave them in the ear,- except a little, of which ye shall eat. Then will come after that (period) seven dreadful (years), which will devour what ye shall have laid by in advance for them,- (all) except a little which ye shall have (specially) guarded. Then will come after that (period) a year in which the people will have abundant water, and in which they will press (wine and oil)." (Qur'an: Yusuf 12:46-49)

2.5. The supply of water is fixed and it should not be wasted

The Qur'an makes two clear statements regarding water that support water demand management. First, the supply of water is fixed, and second, it should not be wasted. The statement that water supply is fixed, and that therefore, at some point, demand must be managed because supplies cannot be infinitely increased (Faruqui 2001). Allah says, "He sends down water from the skies, and the channels flow, each according to its measure..." (Qur'an: al-Ra'd 13:17) "And We send down water from the sky according to (due) measure, and We cause it to soak in the soil; and We certainly are able to drain it off (with ease)." (Qur'an: al-Mu'minin 23:18)

The Qur'an then tells humans that they may use God's gifts for their sustenance in moderation, provided that they commit no excess therein (Faruqui, 2001), as Allah says, "O Children of Adam! Wear your beautiful apparel at every time and place of prayer: eat and drink: But waste not by excess, for Allah loveth not the wasters." (Qur'an: al-A'raf, 7:31)

Safinah narrated that the Prophet Muhammad *sall Allaahu 'alay-hi wa- sallam* (May Allah pray on him and grant him peace) performed ablution with a mudd of water and the purifying bath with a sa' of water. Recorded by al-Tirmidhi (2000). One mud of water, equal to 1 litre. So Prophet Muhammad *sall Allaahu 'alay-hi wa- sallam* (May Allah pray on him and grant him peace) only used 1 litre of water for ablution. One sa' up to five mudds, equal to 2-3

litres. So Prophet Muhammad *sall Allaahu 'alay-hi wa-sallam* (May Allah pray on him and grant him peace) only used 2-3 litres of water to take bath (Faruqui 2001).

And Prophet Muhammad *sall Allaahu 'alay-hi wa-sallam* (May Allah pray on him and grant him peace) also forbids the Muslim from wasting water while taking ablution. Abdullah bin 'Amr narrated: The Messenger of Allah passed by Sa'ad when he was performing ablution and he said, "What is this extravagance?" He said, "Can there be any extravagance in ablution?" He said, "Yes, even if you are on the bank of a flowing river." Recorded by Ibnu Majah (2007).

2.6. Equitable sharing of water

Allah gives pure and fresh water to His entire creation; human, flora, and fauna, so that they can share it jointly: "And He it is Who sends the winds as heralds of glad tidings, going before His mercy, and We send down pure water from the sky. That with it We may give life to a dead land, and slake the thirst of things We have created - cattle and men in great numbers. And We have distributed the (water) amongst them, in order that they may celebrate (our) praises, but most men are averse (to aught) but (rank) ingratitude." (Qur'an: al-Furqan 25:48-50) "And in the earth are tracts (diverse though) neighbouring, and gardens of vines and fields sown with corn, and palm trees - growing out of single roots or otherwise: watered with the same water, yet some of them We make more excellent than others to eat. Behold, verily in these things there are signs for those who understand!" (Qur'an: al-Ra'd 13:4) "And We send the fecundating winds, then cause the rain to descend from the sky, therewith providing you with water (in abundance), though ye are not the guardians of its stores." (Qur'an: al-Hijr 15:22)

So men as the servant of Allah and His vicegerent in this world also have to make sure that entire creation can share the water; human, flora, and fauna. This concept drawn from the saying of Prophet Salih: "And tell them that the water is to be divided between them: Each one's right to drink being brought forward (by suitable turns)." (Qur'an: al-Qamar 54:28), and "He said, 'Here is a she-camel: she has a right of watering, and ye have a right of watering, (severally) on a day appointed.'" (Qur'an: al-Shu'ara' 26:155). And the story about Prophet Musa and two daughters of Prophet Syu'aib: "And when he arrived at the watering (place) in Madyan, he found there a group of men watering (their flocks), and besides them he found two women who were keeping back (their flocks). He said, 'What is the matter with you?' They said, 'We cannot water (our flocks) until the shepherds take back (their flocks): And our father is a very old man.'" (Qur'an: al-Qasas 28:23)

The recognition of water as a vital resource, of which everyone has the right to a fair share (Faruqui 2001) also based on the hadith, as Prophet Muhammad *sall Allaahu 'alay-hi wa-sallam* (May Allah pray on him and grant him peace) says, "Muslims have common share in three (things): grass, water and fire." Recorded by Abu Daud (1997). Water is categorized in Islam as follows (Faruqui 2001): (1) Private property (water in private containers, treatment plants, distribution systems, and reservoirs). This is water in which work, infrastructure, and knowledge have been invested to

obtain it. The "owner" of the "container" has the right to use it, trade it, or sell it. (2) Restricted private property (lakes, streams, and springs located in private lands). The owner of the land has special rights over others, but also has certain obligations to them. Within these limits, the owner can trade water like any other good. (3) Public property (water in rivers, lakes, glaciers, aquifers, and seas, and from snow and rainfall). Obviously, water in its natural state cannot be bought or sold. However, if infrastructure and knowledge have been invested to withdraw it - for instance, if a public utility constructs a supply, treatment, and distribution system to convey it to people's homes - then the water becomes private property, and the utility has the right to recover its costs.

A Muslim cannot hoard excess water - rather he is obliged to allow others to benefit by it (Faruqui, 2001). Narrated Abu Huraira: Allah's Apostle said, "There are three persons whom Allah will not look at on the Day of Resurrection, nor will he purify them and theirs shall be a severe punishment. They are: (1) A man possessed superfluous water, on a way and he withheld it from travelers..." Recorded by al-Bukhari (2002).

Once Prophet Muhammad *sall Allaahu 'alay-hi wa-sallam* (May Allah pray on him and grant him peace) being a Leader of Islamic State of Madinah, he encouraged Uthman to buy well of Ruma from the owner and then ask Uthman establish it as waqf, which means for collective enjoyment or ownership for religious use and for the public benefit (al-Bukhari, 2002; Faruqui, 2001).

Sharing good things among pupil was one of the teachings of Prophet Muhammad *sall Allaahu 'alay-hi wa-sallam* (May Allah pray on him and grant him peace), as he says, "None of you will have faith till he wishes for his (Muslim) brother what he likes for himself." Recorded by al-Bukhari (2002). Obviously, this applies to the desire for an adequate amount of clean, fresh water, as well as anything else (Faruqui 2001).

The equitable of sharing fresh water only applicable in this world, but in the hereafter the concept was changed. In the hereafter, fresh water was given only for the believer; the people of heaven. Allah says, "The Companions of the Fire will call to the Companions of the Garden, 'Pour down to us water or anything that Allah doth provide for your sustenance.' They will say, 'Both these things hath Allah forbidden to those who rejected Him.'" (Qur'an: al-A'raf 7:50)

One not only be rewarded by Allah by sharing water with human, even he share with the animal. Narrated Abu Huraira: Allah's Apostle said, "While a man was walking he felt thirsty and went down a well and drank water from it. On coming out of it, he saw a dog panting and eating mud because of excessive thirst. The man said, 'This (dog) is suffering from the same problem as that of mine. So he (went down the well), filled his shoe with water, caught hold of it with his teeth and climbed up and watered the dog. Allah thanked him for his (good) deed and forgave him.' The people asked, 'O Allah's Apostle! Is there a reward for us in serving (the) animals?' He replied, 'Yes, there is a reward for serving any animate.'" Recorded by al-Bukhari (2002). Even though someone who has committed a big crime such prostitute,

Allah still reward her with her sharing water with the dog: Narrated Abu Huraira: The Prophet said, "While a dog was going round a well and was about to die of thirst, an Israeli prostitute saw it and took off her shoe and watered it. So Allah forgave her because of that good deed." Recorded by al-Bukhari (2002).

God informs human beings of the rights of animals by comparing those (animals) to humans: "There is not an animal (that lives) on the earth, or a being that flies on its wings, but (forms part of) communities like you. Nothing have we omitted from the Book, and they (all) shall be gathered to their Lord in the end." (Qur'an: al-An'am 6:38) Animals cannot be allowed to die of thirst, and the water that remains after humans have quenched their thirst must be given to them (Faruqi 2001).

As Amery (2001) notes, nonhuman species have rights to sufficient water that is of "good" quality because the water has to be suitable for "nourishing vegetation" and for drinking by animals.

2.7. Water as a purification instrument spiritually and physically

Water plays an essential role in religious observance. One could go so far as to say that without water, the daily practice of Islam would be virtually impossible (Bouguerra 2005). Water created by Allah as a purification instrument for both spiritual and physical aspect of men: "Remember He covered you with a sort of drowsiness, to give you calm as from Himself, and he caused rain to descend on you from heaven, to clean you therewith, to remove from you the stain of Satan, to strengthen your hearts, and to plant your feet firmly therewith." (Qur'an: al-Anfal 8:11) For physical purification, water used to human body, cloth and place. For human body, Islam calls for bathing and ablution. Taking a bath is considered obligatory in Islam on a number of occasions, including the end of menstruation and postnatal discharge, after sexual intercourse and wet dreams: "If ye are in a state of ceremonial impurity, bathe your whole body." (Qur'an: al-Ma'idah 5:6), "O ye who believe! Approach not prayers with a mind befogged, until ye can understand all that ye say, - nor in a state of ceremonial impurity (Except when travelling on the road), until after washing your whole body. If ye are ill, or on a journey, or one of you cometh from offices of nature, or ye have been in contact with women, and ye find no water, then take for yourselves clean sand or earth, and rub therewith your faces and hands. For Allah doth blot out sins and forgive again and again." (Qur'an: al-Nisa' 4:43)

Allah has made ablution an essential preliminary of prayers: "O ye who believe! When ye prepare for prayer, wash your faces, and your hands (and arms) to the elbows; Rub your heads (with water); and (wash) your feet to the ankles. If ye are in a state of ceremonial impurity, bathe your whole body. But if ye are ill, or on a journey, or one of you cometh from offices of nature, or ye have been in contact with women, and ye find no water, then take for yourselves clean sand or earth, and rub therewith your faces and hands, Allah doth not wish to place you in a difficulty, but to make you clean, and to complete his favour to you, that ye may be grateful." (Qur'an: al-Ma'idah 5:6) Prophet Muhammad *sall*

Allaahu 'alay-hi wa- sallam (May Allah pray on him and grant him peace) said, "God does not accept any prayers which have not been preceded by ablution." Recorded by Ibnu Majah (2007). Besides prayer, there are other forms of ibadah that need to the performer to take ablution such: tawaf, holding Qur'an.

From the ablution, it shows that Islam places strong emphasis on the achievement of perfect harmony and total complementarity between spiritual and physical purification. Ablution, which represents physical purification, is an opening to prayers, which ensures spiritual purification. Together, they promote a complete state of psychological well-being for Muslims (al-Sheikh 1996, Bouguerra 2005).

Abu Huraira reported: Allah's Messenger (may peace be upon him) said: "When a bondsman-a Muslim or a believer-washes his face (in course of ablution), every sin he contemplated with his eyes, will be washed away from his face along with water, or with the last drop of water; when he washes his hands, every sin they wrought will be effaced from his hands with the water, or with the last drop of water; and when he washes his feet, every sin towards which his feet have walked will be washed away with the water or with the last drop of water with the result that he comes out pure from all sins." Recorded by Muslim (1998).

The moral function of ritual ablution is clearly expressed in the sacramental words spoken to God that complete the ritual of purification: Umar ibn al - Khattab (RA) narrated that Allah's Messenger *sall Allaahu 'alay-hi wa- sallam* (May Allah pray on him and grant him peace) said, "Anyone performs ablution and makes it a perfect ablution and says (I bear witness that there is no God besides Allah who is the One, Who has no partner and I bear witness that Muhammad is His slave and Messenger. O Allah! Cause me to be among those who repent and cause me to be among who purify themselves), then all eight doors of Paradise are opened for him that he may enter whichever door he chooses." Recorded by al-Tirmidhi (2000).

Islam requires the water that used to make a purification must colourless, odourless, and of agreeable taste.

2.8. Allah made universe include water as a subservient to people so to show thanks to Him and so live in peace and harmony at ecological level

Allah says, "See ye the water which ye drink?" (Qur'an: al-Waqi'ah 56:68) "It is He Who has made the sea subject, that ye may eat thereof flesh that is fresh and tender, and that ye may extract therefrom ornaments to wear; and thou seest the ships therein that plough the waves, that ye may seek (thus) of the bounty of Allah and that ye may be grateful." (Qur'an: al-Nahl 16:14) "Or, Who has made the earth firm to live in; made rivers in its midst; set thereon mountains immovable; and made a separating bar between the two bodies of flowing water? (Can there be another) god besides Allah? Nay, most of them know not." (Qur'an: al-Naml 27:61)

As a sign of gratitude to Allah, we have to protect our environment, include water and do not cause damage to it: " To the Madyan people We sent Shu'aib, one of their own brethren: he said: "O my people! Worship Allah; Ye have no

other god but Him. Now hath come unto you a clear (Sign) from your Lord! Give just measure and weight, nor withhold from the people the things that are their due; and do no mischief on the earth after it has been set in order: that will be best for you, if ye have Faith."(Qur'an: al-A'raf 7:85) "When he turns his back, His aim everywhere is to spread mischief through the earth and destroy crops and cattle. But Allah loveth not mischief."(Qur'an: al-Baqarah 2:205)

The meaning of mischief 'fasad' can be interpreted as spoiling the natural functioning of the world or spoiling or degrading of natural resources (Amery 2001). The environment is protected from humans by specific injunctions against upsetting its natural order through pollution or other activities. Given that the Arabic root of Islam 'salam' means peace and harmony, so Islamic way of life entails living in peace and harmony at ecological, as well as individual and social levels (Faruqi 2001).

Islam's concern for maintaining the purity of water (al-Sheikh 1996) as Prophet Muhammad *sall Allaahu 'alay-hi wa- sallam* (May Allah pray on him and grant him peace) said, "Anyone who wakes up from sleep must not put his hand in any utensil until he has washed it three times; for he does not know where his hand was during his sleep." Recorded by Muslim (2000)

Jabir reported, "The Messenger of Allah (may peace be upon him) forbade to urinate in stagnant water." Recorded by Muslim (1998). Abdullah bin Mughaffal said, the Messenger of Allah said, "None of you should urinate in his wash area for most of the insinuating thoughts come from that." Recorded by Ibnu Majah (2007). Abu Huraira reported, the Messenger of Allah (may peace be upon him) said, "None amongst you should urinate in standing water, and then wash in it." Recorded by Muslim (1998). Narrated Mu'adh ibn Jabal: The Apostle of Allah (peace_be_upon_him) said, "Be on your guard against three things which provoke cursing: easing in the watering places and on the thoroughfares, and in the shade (of the tree). Recorded by Abu Daud (1997).

The Prophet forbid urination in water meant to arouse people's disgust at the unhealthy practice of urinating in water. It reminds us that we may use the same water at a later time for taking a bath or washing. Also, it is a preventive measure, which aims to protect other people against infectious diseases. Urination in stagnant water, including ponds and swimming pools, causes the spread of diseases (al-Sheikh 1996:14).

Prophet Muhammad *sall Allaahu 'alay-hi wa- sallam* (May Allah pray on him and grant him peace) said, "Do not commit any harm or injury to yourself, and do not cause harm or injury to others." Recorded by Ibnu Majah (2007). The hadith and those outlined in the preceding section on rights of the environment, collectively instruct Muslims not to conduct acts that will harm themselves, other creatures, or the environment (Faruqi 2001).

2.9. Allah creates water with its own nature from different sources to be used by the creation

Water by its nature created by Allah clean and fresh. There are three types of fresh water: atmospheric, surface and deep or underground water (al-Sheikh 1996). Atmospheric water

covers all that falls on earth in the form of rain, hail, and the like. having been distilled, it enjoys a high standard of purity (Ibid.) Allah says, "And He it is Who sends the winds as heralds of glad tidings, going before His mercy, and We send down pure water from the sky." (Qur'an: al-Furqan 25:48) However, it may, while falling, become mildly or extensively polluted by dust, gases and dirt carried in the air (al-Sheikh 1996).

Surface water refers to water found on the surface of the earth which may be flowing, as in streams and rivers, or still, as in lakes (Ibid). "He sends down water from the skies, and the channels flow, each according to its measure: But the torrent bears away to foam that mounts up to the surface. Even so, from that (ore) which they heat in the fire, to make ornaments or utensils therewith, there is a scum likewise. Thus doth Allah (by parables) show forth Truth and Vanity. For the scum disappears like forth cast out; while that which is for the good of mankind remains on the earth. Thus doth Allah set forth parables."(Qur'an: al-Ra'd 13:17)

Underground water is water which has seeped down through porous soil (al-Sheikh 1996). "And We send down water from the sky according to (due) measure, and We cause it to soak in the soil; and We certainly are able to drain it off (with ease)." (Qur'an: al-Mu'minun 23:18) It also may either flow freely out of the ground in the form of a fountain-head, or may be extracted by man through a well (al-Sheikh 1996). "Seest thou not that Allah sends down rain from the sky, and leads it through springs in the earth?"(Qur'an: al-Zumar 39:21). "Thenceforth were your hearts hardened: They became like a rock and even worse in hardness. For among rocks there are some from which rivers gush forth; others there are which when split asunder send forth water; and others which sink for fear of Allah. And Allah is not unmindful of what ye do." (Qur'an: al-Baqarah 2:74) One of the underground water is spring: "And remember Moses prayed for water for his people; We said: "Strike the rock with thy staff." Then gushed forth there from twelve springs. Each group knew its own place for water. So eat and drink of the sustenance provided by Allah, and do no evil nor mischief on the (face of the) earth." (Qur'an: al-Baqarah 2:60)

Qur'an also divides water into two category, first: palatable and sweet and second: salt and bitter: "It is He Who has let free the two bodies of flowing water: One palatable and sweet, and the other salt and bitter; yet has He made a barrier between them, a partition that is forbidden to be passed." (Qur'an: al-Furqan 25:53)

2.10. Healing and treatment with water

Qur'an shows that, water also used as healing and treatment instrument, as Allah said about Prophet Ayub: "Commemorate Our Servant Job. Behold he cried to his Lord: "The Evil One has afflicted me with distress and suffering!" (The command was given :) "Strike with thy foot: here is (water) wherein to wash, cool and refreshing, and (water) to drink." (Qur'an: Sad 38:41-42)

2.11. Water is God's supreme reward to the believers in the heaven in the life hereafter

For the Qur'an there is, of course, life on earth, but there is also the life beyond. Here, too, water is God's supreme reward to the believers and to those who have done good works during the brief passage on this earth that is life for any follower of the Prophet (Bouguerra 2005). Allah says, "The righteous (will be) amid gardens and fountains (of clear-flowing water)." (Qur'an: al-Hijr 15:45) "So We opened the gates of heaven, with water pouring forth." (Qur'an: al-Qamar 54:11)

People of Heaven will be given different kind of drinks: "(Here is) a Parable of the Garden which the righteous are promised: in it are rivers of water incorruptible; rivers of milk of which the taste never changes; rivers of wine, a joy to those who drink; and rivers of honey pure and clear. In it there are for them all kinds of fruits; and Grace from their Lord..." (Qur'an: Muhammad 47:15). As Qur'an said one of the drinks water from springs called salsabil: "And they will be given to drink there of a Cup (of Wine) mixed with Zanjabil. A fountain there, called Salsabil." (Qur'an: al-Insan 76:17-18); tasnim: "With it will be (given) a mixture of Tasnim: A spring, from (the waters) whereof drink those Nearest to Allah." (Qur'an: al-Mutaffifin 83:27-28)

2.12. Allah gives water because of good action and withholds water because of wrongdoing

Qur'an said that good action such love to seek forgiveness from Allah, He will give water: "Saying, 'Ask forgiveness from your Lord; for He is Oft-Forgiving. He will send rain to you in abundance. Give you increase in wealth and sons. And bestow on you gardens and bestow on you rivers (of flowing water)." (Qur'an: Nuh 71:10-12)

On the other hand, wrongdoing and sin will bring anger of Allah and He will withhold water. Allah says about the owner of the garden that disbelieves in Allah: "Or the water of the garden will run off underground so that thou wilt never be able to find it. So his fruits (and enjoyment) were encompassed (with ruin), and he remained twisting and turning his hands over what he had spent on his property, which had (now) tumbled to pieces to its very foundations, and he could only say, "Woe is me! Would I had never ascribed partners to my Lord and Cherisher!" (Qur'an: al-Kahf 18:41-42) 'Abdullah bin 'Umar said: "The Messenger of Allah turned to us and said: 'O Muhajirin, there are five things with which you will be tested, and I seek refuge with Allah lest you live to see them: ..They do not withhold the Zakat of their wealth, but rain will be withheld from the sky, and were it not for the animals, no rain would fall on them..." Recorded by Ibnu Majah (2007).

2.13. Misfortune due to misused of water

Between life and death, water may not only bring prosperity, wealth and opulence, but may also bring misfortune should it be misused or mismanaged or should we fail to give thanks to God for his bounty (Bouguerra 2005). As Qur'an records dialog between the owners of the garden, as the believer said, "It may be that my Lord will give me something better than thy garden, and that He will send on thy garden thunderbolts

(by way of reckoning) from heaven, making it (but) slippery sand! Or the water of the garden will run off underground so that thou wilt never be able to find it." (Qur'an, al-Kahf 18:40-41) More explicitly, Allah says, "Say: "See ye?- If your stream be some morning lost (in the underground earth), who then can supply you with clear-flowing water?" (Qur'an: al-Mulk 67:30).

2.14. Water as an instrument of punishment in the world and hereafter

The Qur'an also emphasises the ambivalence of water, which can also destroy -by means of torrential rains, hail or floods, for example- and thus serve to punish the wicked (Bouguerra 2005). The people of Prophet Nuh have been destroyed by flood because they confront with Allah and Prophet Nuh: "Then the word went forth: "O earth! Swallow up thy water, and o sky! Withhold (thy rain)!" And the water abated, and the matter was ended. The Ark rested on Mount Judi, and the word went forth: 'Away with those who do wrong!'" (Qur'an: Hud 11:44) "We, when the water (of Noah's flood) overflowed beyond its limits, carried you (mankind), in the floating (ark)." (Qur'an: al-Haaqqah 69:11)

The Pharaoh also been destroyed with water: "Then Pharaoh pursued them with his forces, but the waters completely overwhelmed them and covered them up." (Qur'an: Taha 20:78) "(Remember also) Qarun, Pharaoh, and Haman: there came to them Moses with clear signs, but they behaved with insolence on the earth; yet they could not overreach (Us). Each one of them We seized for his crime: of them, against some We sent a violent tornado (with showers of stones); some were caught by a (mighty) Blast; some We caused the earth to swallow up; and some We drowned (in the waters). It was not Allah Who injured (or oppressed) them, they injured (and oppressed) their own souls." (Qur'an: al-Ankabut 29:40)

Qur'an also describes that those who confronts Allah and His messenger in this world, will be punished in the hereafter in hell with 'hell water': "And We shall drive the sinners to Hell, like thirsty cattle driven down to water." (Qur'an: Maryam 19:86) "In front of such a one is Hell, and he is given, for drink, boiling fetid water." (Qur'an: Ibrahim 14:16) "Say, 'The truth is from your Lord.' Let him who will believe, and let him who will, reject (it): for the wrong-doers We have prepared a Fire whose (smoke and flames), like the walls and roof of a tent, will hem them in: if they implore relief they will be granted water like melted brass, that will scald their faces, how dreadful the drink! How uncomfortable a couch to recline on!" (Qur'an: al-Kahf 18:29) "These two antagonists dispute with each other about their Lord: But those who deny (their Lord),- for them will be cut out a garment of Fire: over their heads will be poured out boiling water." (Qur'an: al-Haj 22:19) See also: Qur'an: al-An'am 6:70; al-Saaffat 37:67; al-Dukhan 44:46, 48; al-Rahman 55:44; al-Waqi'ah 56:42, 54, 93.

3. Conclusions

From the review study to Qur'anic verses related to water, the Quranic principles of water environmental management are:

- 1) Men as a servant of Allah, as to manage the environment, they have to obey Allah's orders based on the holy Qur'an and the hadith of Prophet 's Muhammad *sall Allaahu 'alay-hi wa- sallam* (May Allah pray on him and grant him peace).
- 2) Man as the vicegerent of Allah has to manage his life based on the order of Allah includes managing usage of water in daily life.
- 3) Water is the symbol of life as by the will of God, the sole basis for the emergence of life and every life on earth owes its existence to the element of water.
- 4) Qur'an called for the proper governance of water that all entire universes may make use of it and the leader of the community has to govern the usage of water as to make sure the people live in harmony and obey Allah.
- 5) The supply of water is fixed and it should not be wasted
- 6) Men as the servant of Allah and His vicegerent in this world have to make sure that entire creation can share the water; human, flora, and fauna.
- 7) Water as a purification instrument spiritually and physically.
- 8) Allah made universe include water as a subservient to people so to show thanks to Him and so live in peace and harmony at ecological level.
- 9) Allah creates water with its own nature from different sources to be used by the creation
- 10) Healing and treatment with water.
- 11) Water is God's supreme reward to the believers in the heaven in the life hereafter.
- 12) Allah gives water because of good action and withholds water because of wrongdoing.
- 13) Misfortune due to misused of water.
- 14) Water as an instrument of punishment in the world and hereafter.

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