

Environment and Islam

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For the last two hundred years, unprecedented environmental challenges and irreversible mass extinctions have been caused on the Earth including a rising trend in the global temperature during the 20th century. The loading capacity of the world has already been reached, and severe tensions between unending demands of the human beings and the finite natural resources of the world have become more apparent. The seemingly innocent and dulcet “laissez-faire” rhetoric in capitalist system promoted the removal of all meaningful checks and balances pertaining to production and consumption activities, and have resulted in the terrific destruction of our natural assets. Excessive consumption (and so production) and squandering are in the heart of the global environmental problems, and there is a strong need for the revival of the critical human values of moderation and thriftiness. Cumulative burden of individual irresponsibility can no longer be tolerated. Recent experiences demonstrate that any development model devoid of an ethical view on the environment, will be dominated by the uncontrolled exploitation of the natural assets with irreversible damages. Islam, as a religion of moderation, presents a viable alternative towards addressing the current challenges. Moderation refers not only to the personal lives of the believers but also to their interaction with fellow human beings and the nature they live in. Nature has been created in order, balance and with extraordinary esthetic beauty, and all these aspects of nature while enhancing man's life here, should be honored, utilized and protected accordingly. All patterns of man's production and consumption should be based on an overall order and balance of nature, which is a fundamental component of any meaningful approach towards a more environmentally friendly socio-economic development.

1. Introduction

For the last two hundred years, unprecedented environmental challenges and irreversible mass extinctions have been caused on the

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Earth including a rising trend in the global temperature during the 20th century. Considerable research findings by many scientists across the disciplines demonstrate that climate change is a reality and ‘very likely’ human-induced event. According to a recent report by the Intergovernmental Panel on Climate Change (IPCC), leading climate scientists now feel confident that human activity is heating up the planet since Industrial Revolution (IPCC, 2010). Consistent with this, emissions per head are highest in developed countries and much lower in developing countries—although developing countries are likely to be closing the gap, because of their more rapid collective growth and their increasing share of more energy-intensive industries (Hovi and Holtmark, 2006). Unfortunately, studies further suggest that those activities will more likely continue to affect climate adversely over the next century (Nordhaus, 2007). With this greatest damage, some estimates suggest that not only are more than one hundred species a day becoming extinct, but also our natural resources that sustain life on the planet—air, water and soil— are becoming polluted or depleted on an alarming scale together with exponentially increasing human population growth (Des Jardins, 2001). This means that as the prospects for reversing the continued degradation and depletion of natural resources plummet, natural resources on the planet such as clean water, clean air and clean soil will become a luxury, and resources for the survival of future generations will be scarce⁴. A comprehensive survey of the international environmental agreements and their practical impact on the environmental problems they target shows that there is no strong consensus by the countries to address the current challenges effectively (Alpay, 2002).

Climate change is one of the many different forms of the unprecedented degradation in our common environmental assets. According to Living Planet Report of the WWF 2012, since the 1970s, annual demand on the natural world by human beings has exceeded the annual Earth’s regenerative capacity, indicating an eventual depletion of our natural resources. The Ecological Footprint, which tracks humanity’s demands on the biosphere by comparing the renewable resources people are consuming against the Earth’s biocapacity, shows

⁴ Demirbaş, D. The Economics of Air Pollution: Theories, Valuation Methods and Policy Aspects,’ in *Air Pollution, Health and Environmental Impacts*, Edited by B. Gurjar, L. Molina and CSP Ojha, Taylor & Francis: USA, 2010.

a consistent trend of overconsumption. The WWF 2012 Living Planet Report indicates that “if all of humanity lived like an average resident of Indonesia, only two-thirds of the planet’s bio capacity would be used; if everyone lived like an average Argentinean, humanity would demand more than half an additional planet; and if everyone lived like an average resident of the USA, a total of four Earths would be required to regenerate humanity’s annual demand on nature”.

Air pollution is another very common form of major environmental problems, and poses significant health risks across countries. With the recent increases in air pollution levels (such as Carbon Monoxide, Ground-Level Ozone, Lead, Nitrogen Dioxide, Particulate Matter, Sulphur Dioxide), countries face significant burden of disease from respiratory infections, heart disease, and lung cancer. Indoor air pollution is estimated to cause approximately 2 million premature deaths mostly in developing countries. Almost half of these deaths are due to pneumonia in children under 5 years of age. Similarly urban outdoor air pollution is estimated to cause 1.3 million deaths worldwide per year. Those living in middle-income countries disproportionately experience this burden. It is worth noting that exposure to air pollutants is largely beyond the control of individuals, and requires action by public authorities at the national, regional and even international levels (WHO, 2011).

The prospects for our water resources, another significant component of our lives, are not promising either. Every day, 2 million tons of sewage and industrial and agricultural waste are discharged into the world’s water (UNESCO-WWAP, 2003), which can almost be matched to the weight equivalent of the entire human population of 6.8 billion people. According to the estimates of the studies undertaken by the United Nations, the amount of wastewater produced annually is about 1,500 cubic kilometer, six times more water than exists in all the rivers of the world.

It is surprising to note that given all the advancements in science and technology, 2.5 billion people worldwide live without improved sanitation (UNESCO-WWAP, 2012); over 70% of these people who lack sanitation live in Asia. In 2006, only 31% of residents in Sub-Saharan Africa, had access to improved sanitation, and this region is the slowest of the world’s regions in achieving improved sanitation.

Infectious diseases associated with waterborne diseases are the number one killer of children under five years old worldwide, and according to World Health Organization estimates more people die from unsafe water annually than from all forms of violence, including war. Unsafe or inadequate water, sanitation, and hygiene cause approximately 3.1 % of all deaths worldwide, and more strikingly, unsafe water causes 4 billion cases of diarrhoea each year, which results in 2.2 million deaths, mostly of children under five. In other words, of all the child deaths each year, 15% are attributable to diarrhoea, which painfully means a child dying every 15 seconds.⁵

Desertification, a form of soil pollution reflected by the degradation of dry land, is another commonly observed global environmental problem. According to a 2008 factsheet by the United Nations Convention to Combat Desertification, about 3.6 thousand million hectares of the world's dryland (70% of the total) had been degraded. The trend is not promising here and according to recent estimates, the world is experiencing continuous desertification across different regions, but in particular along the borders of semi-arid and arid lands in America (north and south), central Australia, Asia and Africa.⁶ Only in Africa, about 75% of the agriculture land has been degraded through desertification, which generated additional adverse effects on its already difficult economic circumstances.

Brazil is one of the shining emerging economies of the world and a member of the BRICS, a powerful economic bloc of recent times. Its name comes from a special tree that covers most of its coastal regions. As a reflection of the word for glowing embers, due to red colour of this tree, the colonizers called it Braisil (the official name of its current capital). In only one century, the Spanish and Portugese colonizers managed to destroy this beautiful natural asset and the tree had disappeared totally from the 100 km wide stretch that used to be its natural habitat.⁷ On its path to higher levels of economic development, will Brazil, and other developing countries in this context, copy the tragic environmental mistakes of Western modernity and exploit the natural resources, or will it be responsible and choose an

⁵ UNICEF, Progress of Nations, 2000.

⁶ Ritter, Michael E., *The Physical Environment: an Introduction to Physical Geography*, 2006.

⁷ Avicenna and the Ethics of Science and Technology Today, UNESCO publications, 2004, <http://www.unesco.org/shs/ethics>

environmentally friendly economic development? How can we make sure that the latter will be the preferred choice?

In this past century, not only the tree cover in Brazil was destroyed but also our waters are polluted, air quality significantly deteriorated with the resulting increase in painful respiratory diseases, and unreliable and unpredictable changes in our climate with sea level rises threatening many countries and devastating natural disasters across the world. The increasing adoption of capitalism by many countries, and the very principle of capitalism –ceaseless accumulation of capital and reckless accommodation of endless human demands- rings the bells for the global environment. It should also be emphasized that the loading capacity of the world has already been reached, and we are observing severe tensions between unending demands of the human beings and the finite natural resources of the world. Recent experiences demonstrate that any development model devoid of an ethical view on the environment, will be dominated by the uncontrolled exploitation of the natural assets with irreversible damages. The reversal of this dangerous tension between economic development and environment is very critical for the future survival of the humankind as it is obvious that the dominance of materialistic approaches are exacerbating the current problems.

2. Environment as a Common Value of Humanity

The modern worldview sees nature as a machine, that it has no value and expresses no sense of purpose⁸. In a nutshell, this view robs nature of all its inherent qualities. John Locke's theory of primary and secondary qualities may be interesting to note in this context. Locke argues that only primary qualities exist in nature; there is no place for secondary qualities. Rather, the latter are products of the human mind which are imposed on nature, which in itself is devoid of soul and intelligence and has no inherent or intrinsic values at all. In short, "nature is a dull affair, soundless, scentless, colorless: merely the hurrying of material, endlessly, meaninglessly."⁹ A tree, for example,

⁸ This section and the next one are mostly based on general findings of Özdemir (2003), *Towards an Understanding of Environmental Ethics from a Qur'anic Perspective*, in Islam and Ecology, edited by R. Foltz.

⁹ Locke's theory of primary and secondary qualities is best summarized by A.N. Whitehead, who realized the full implications of this theory, as follows: "The primary qualities are the

has no intrinsic value of its own being as such. According to the modern materialistic concept of nature, a tree gains its value through human intervention, such as when it becomes a chair, a table or whatever. The only value that nature can have is instrumental value. Such an understanding of nature has provided justification for the exploitative use of nature and natural resources.

According to Schumacher (1973), “The modern man does not experience himself as a part of nature but as an outside force destined to dominate and conquer it. He even talks of a battle with nature, forgetting that, if he won the battle he would find himself on the losing side. One reason overlooking this vital fact is that we are estranged from reality and inclined to treat as valueless everything that we have not made ourselves....[W]e forgot the fact that what we use to make some of the capital which today helps us to produce is a small part of the total capital we are using. Far larger is the capital provided by nature and not by man. This larger part is now being used up at an alarming rate.”¹⁰

The main reason of why modern man does not experience himself as a part of nature but as an outside force destined to dominate and conquer it stems from the positivist ideological point of view. During the second half of the nineteenth century and the first half of the twentieth century, the predominant view held by the positivists and scientifically-minded philosophers was that science and technology could satisfy humanity and solve its problems totally. As a result of this view, modern man lost

essential qualities of substances whose spatio-temporal relationships constitute nature. The orderliness of these relationships constitutes the order of nature. But the mind in apprehending also experiences sensations which, properly speaking, are qualities of the mind alone. These sensations are projected by the mind so as to clothe appropriate bodies in external nature. Thus the bodies are perceived as with qualities which in reality do not belong to them, qualities which in fact are purely the offspring of the mind. Thus nature gets credit which should in truth be reserved for ourselves: the rose for its scent: the nightingale for his song: and the sun for his radiance. The poets are entirely mistaken. They should address their lyrics to themselves, and should turn them into odes of self-congratulation on the excellency of the human mind.” See A. N. Whitehead, *Science and the Modern World* (New York: Macmillan Company, 1926), pp. 79-80. For a recent exposition and critique of the theory of qualities, see David Ray Griffin, *God and Religion in the Postmodern World: Essays in Postmodern Theology* (Albany: SUNY Press, 1989), pp. 16-17.

¹⁰ Schumacher, E. F. *Small is Beautiful*. England: Abakus, page 11.

his awareness of the critical balances in nature and alienated himself from it¹¹.

There have been many reasons for the loss of this awareness, and the one that is associated with the work of the science community has been the dominance of the neoclassical economic approach on the academic and scientific research. This school of thought, in pursuit of mirroring the approach of positive sciences, placed an undeserved weight on the application of positivism in the analysis of social phenomenon around us without giving any consideration over the differences between social sciences and positive sciences, where the application of positivism was naturally not a problematic issue for the latter. Normative approach may not be a part of positive sciences but it can not be left aside for social sciences. Current mainstream economics under the influence of neoclassical school of thought is not in a position to take a balanced and meaningful framework for the analysis of environmental issues.

The instrumental view of nature which characterizes modern thought has been very severely criticized by environmentalists in recent decades. Environmentalists claim that there is a strong and direct relationship between environmental problems and our modern understanding of nature. To put it more concretely, the value systems that we hold and which, in turn, shape and mold our behavior and attitudes towards society and nature, are the result of our overall beliefs and metaphysical views concerning all reality. Consequently, any alternative theories of environmental ethics need to be expected to challenge the basic propositions of the dominant modern understanding of nature. There is now an urgent need to fill what Hans Jonas calls an “ethical vacuum at the core of the contemporary modern culture.”¹²

The Qur’an, which Muslims consider to be the last of the chain of divine revelations, has been a source of inspiration, illumination and guidance for Muslim philosophers, theologians, scientists, jurists, and others who have accepted it as their sacred revelation. It can be said that the Qur’an is regarded by Muslims as a book of prayer, wisdom, worship, law and invocation—in short, a unique and comprehensive sacred text that

¹¹ Demirbaş, D. and Demirbaş, S. ‘The Economics of Greenhouse Gas Emission and Climate Change’ in *Greenhouse Gas Emissions and Climate Change*, edited by: Dr. Bhola Gurjar, ASCE (American Society for Civil Engineers), 2011.

¹² Hans Jonas, *The Imperative of Responsibility* (University of Chicago Press, 1984), p. 22.

contains whatever pertains essentially to the human condition. For this reason, it is unanimously considered by insiders and outsiders alike to be the most fundamental basis both for the faith of the individual Muslim and for what is called Islamic civilization. Muslims naturally believe that the Qur'an continues to play such a role today in our quest for conducting a meaningfully ethical life. As is clear from the records of history, the Qur'an has played this role in the lives of Muslims from the very beginning of revelation, providing a comprehensive, integrated, and holistic worldview based on the unity of reality.

Looking at the earliest revelations in the Qur'an, which were revealed during the Meccan period, we see that the leading message in these verses is "to awaken in man the higher consciousness of his manifold relations with God and universe."¹³ The impact of grasping the message of these verses is expected, first, to change his overall worldview, then to construct his image of himself, and finally, to change his attitudes, feelings, sentiments and the patterns of his relationships with reality accordingly. These important verses play a key role in understanding the overall Qur'anic worldview. The great Muslim philosopher and Sufi, Muhammad al-Ghazali, for example, in evaluating the meaning of the Qur'anic verses, argues that the early chapters are "the essence of the Qur'an, its heart, its pith, and its secret."¹⁴ For Ghazali, it is these verses that show us the meaning of reality, and Ghazali clearly indicates the importance of trying to understand the deep meanings behind them.¹⁵ It is very interesting to note that these verses, on many occasions, attract the attention of the human beings to the wonderful structure and harmony in our outer environment, including all the creation, be it animals, plants or mountains or other non-living elements, and through them human beings are asked to understand and comprehend the belief in the Creator of all these wonders.

The Qur'an, with its emphasis on the metaphysical dimension of nature, replaced the pagan Arabs' conception of nature with a new and vivid understanding. It is surprising to see the striking similarity between the pagan Arabs' view of nature as lifeless, meaningless and purposeless

¹³ Sir Mohammad Iqbal, *The Reconstruction of Religious Thought in Islam*, p. 8-9.

¹⁴ Al-Ghazali, Abu Hamid, *The Jewels of the Qur'an*, p. 25.

¹⁵ *Ibid.*, p. 19-20. According to him, "the Qur'an is like an ocean. As at the bottom of the ocean, pearls remain hidden, so also are hidden the wonderful meanings behind the Qur'anic verses."

and the ideas put forward in the name of the so-called “scientific” worldview of modern times. Today, the Qur’an is as ready as ever to challenge the modern materialistic conception of nature and to provide a more comprehensive and holistic approach to developing a more relevant theory of environmental ethics. One of the most important Islamic principles related to the environment is the prohibition concerning thoughtless consumption; that is, wastefulness and extravagance. Wastefulness is not only the thoughtless consumption of natural resources; it is at the same time being disrespectful towards God, the Creator and the Owner of all the bounties; “Verily We have created all things in proportion and measure” (Qur’an: 54:49). As a strong implication of this last verse, preserving the balance and measure is a human obligation. The science of ecology shows us that the universe contains extremely sensitive ecological systems and balances, and that man has to maintain these systems properly for its future survival. Islam permits utilization of the environment, but this should not be arbitrary, and in particular, should be free of wastefulness and extravagance:

O children of Adam! Wear your beautiful apparel at every time and place of prayer; eat and drink, but waste not by excess, for God loves not the wasters. (Qur’an, 7:31)

The eating and drinking in this verse can be interpreted as utilizing all the resources required for the continuation of our lives. This should not be uncontrolled. The elements that support life should be conserved so that they can be utilized continuously. Moreover, such conservation and their proper utilization should be unselfish. The following commands of the Qur’an are striking at a time when there are significant inequalities associated with the current economic development models across almost all countries:

Give to the near of kin his due, and also to the needy and the wayfarer. Do not squander your wealth wastefully (Qur’an: 17-26).

(The true servants of the Merciful One are) those who are neither extravagant nor niggardly in their spending but keep the golden mean between the two (Qur’an, 25:67).

3. Fundamental Islamic Principles for the Environment

According to Islam, everything in the universe is created by God for a noble purpose and that in itself confers upon the natural environment a special position, which must be recognised by all believers. It is God Who adorns the skies with the sun, the moon and the stars, and the face of the earth with flowers, trees, gardens, orchards, and the various animal species. It is again God Who causes the rivers and streams to flow on the earth, Who upholds the skies (without support), causes the rain to fall, and places the boundary between night and day. The universe together with all its richness and vitality is the work and art of God. It is again God Who creates all plants and animals as pairs, in this way causing their procreation. Nature was created by God, and it belongs to God.

On many occasions the Qur'an emphasizes and re-emphasizes the ultimate principle that lies beyond nature, why nature exists and what it means. Nature is not there by accident, as a result of the process of chaotic events without meaning or purpose; on the contrary, it has a perfect order and substantive meaning. Nature has been regarded as "the prime miracle" of God, cited untiringly in the Qur'an, with its well-knit structure and regularity.¹⁶ The Qur'an's insistence on the order, beauty and harmony of nature implies that there is no demarcation between what the Qur'an reveals and what nature manifests.

A very relevant principle in this context, and a critical reflection of the Qur'anic perspective for environmental ethics, is that nothing is created without a serious purpose. It is incompatible with the power of the All-Powerful and the mercy of the All-Merciful that He should create things without any meaning, purpose and use. In this regard, the following verses are assertive:

Behold! in the creation of the heavens and the earth and the alternation of night and day there are indeed Signs for men of understanding. Men who celebrate the praises of God standing, sitting and lying down on their sides and contemplate the (wonders of) creation in the heavens and

¹⁶ Rahman, *Major Themes*, p. 68.

the earth (with the thought): “Our Lord! You have created (all) this not for nothing!” (Qur’an 3:190-191)

One immediate conclusion, from an environmentalist perspective, is that every individual creature or being has its own ontological existence as a sign of God, and by its very being it deserves to be given its proper position in the universe, and be utilized in accordance with its purpose of creation and with due respect as it manifests and reveals signs of the Creator. Therefore, every creature deserves attention and consideration for its relation to the divine.

In Islam, God created human beings as vicegerents on the earth, and not as the lords of nature and the world. All believers must have the utmost care and respect towards nature. Islam permits utilization of the environment, but this should not be arbitrary. While utilizing the world’s bounties, Muslims should not do so with an unconstrained and irresponsible approach to consumption. On the contrary, they are obliged to utilize the natural resources provided to them with moderation and with the responsibility that they have as vicegerents of the All-Wise.

This brings a quite challenge against the materialistic world view, which puts human beings at the centre of the universe and treats all environmental assets as objects at their disposal for the realization of whatever ambitions they may have. Especially after the industrial revolution, mankind has consumed the world’s precious resources in an unprecedented manner. The strange thought of full domination over the nature has now put the human beings under the domination of the loss of critical natural assets. The human moral corruption linked to the dominance of materialistic attitudes has, through corruption of the earth’s spiritual ambiance, corrupted the earth’s blessings and therefore its physical environment as well (Muhammad et. al., 2010). God says in the Holy Qur’an:

‘Evil has become rife on the land and at sea because of men’s deeds; this in order that He may cause them to have a taste of some of their deeds; perhaps they will turn back (from evil).’ (Al-Rum, 30:41)

Mankind's inward corruption is not only reflected in the world's outward corruption, it is its actual cause, both directly and physically (through man's pollution of the world and his upsetting the natural balance), and spiritually and existentially (as man's inner corruption changes the subtle existential conditions of the physical world, by 'solidifying' it and cutting it from the graces of heaven). This is the real reason why no amount of scientific environmental action can fully work without spiritual renewal within mankind, and why, conversely, spiritual renewal needs also environmental action to be successful. This is the point when moral transformation is needed and necessary for mankind to stop damaging environment. Human beings are after all only mere stewards, and not owners. Sovereignty, in metaphysical terms, is God's alone (... in Whose hands is the dominion of all things, 36:83). This moral transformation is hidden in Islamic thought and in its principles as the Holy Qur'an sets out complete spiritual and moral ecological guidelines for man (Muhammad et. al. 2010). The following verses underline the same point and once more emphasize the importance of balance in the Qur'anic discourse:

The sun and the moon follow courses (exactly) computed.

And the herbs and the trees-both (alike) bow in adoration.

And the Firmament has He raised high and He has set up the balance (of Justice). In order that you may not transgress (due) balance. So establish weight with justice and fall not short in the balance. (Qur'an 55:5-9)

The key term here is *balance*, which is repeated three times. It is evident from the above discussion that justice and balance are a universal law of God, and consequently, man should conduct a just and balanced life. They establish firstly that justice and balance are universal, secondly that this universal balance is created by God, and thirdly that man must both attempt to comprehend this universal balance and to follow it in all aspects of his life including his interaction with the environment.

The Qur'an presents the fundamental views of Islam, and they are complemented and exemplified by the traditions, both sayings and

actions, of Prophet Muhammed (pbuh)¹⁷. In this connection, it will be important to reflect on a prophetic attitude which reflects the Qur'anic spirit very clearly and powerfully. Prophet Muhammed (pbuh) attached great importance to the moderate use of water,¹⁸ and forbade the excessive use of it even when taking the ablutions¹⁹, saying that to do so was reprehensible (*makruh*). He prevented people from using too much water even for something like ablutions when preparing to enter the divine presence for prayer:

God's Messenger appeared while Sa'd was taking the ablutions. When he saw that Sa'ad was using a lot of water, he intervened saying:

'What is this? You are wasting water.'

Sa'd replied asking: 'Can there be wastefulness while taking the ablutions?'

To which God's Messenger replied:

'Yes, even if you take them on the bank of a rushing river.'²⁰

While reflecting on this particular event and the attitude of the Prophet, this event is not only a simple instruction of using water responsibly while taking the ablutions, but also the articulation of an important and critical principle to be followed by Muslims in all of their affairs. The following points should be emphasized in this context:

- God's Messenger is stating an important prohibition.

¹⁷ Peace Be Upon Him.

¹⁸ As we know, the Qur'an regards water as the source of life and gives great importance to water as an essential and primary element of the ecosystem. With this emphasis it also draws our attention towards water: "And God has created every animal from water: of them there are some that creep on their bellies; some that walk on two legs; and some that walk on four. God creates what He wills: for verily God has power over all things" Qur'an 24:45; see also 25:54.

¹⁹ Preparatory cleaning of outer parts of the body (such as hands, face and feet) for the daily prayers.

²⁰ *Musnad*, ii, 22; *Ibn Maja*, "Tahara," 48, No: 425; i, 147.

- The prohibition concerns something for which no effort was exerted in obtaining it, nor money spent, but is free: the water of a flowing river.
- Moreover, the excessive use of water causes no deficiency to nature, nor does it cause pollution, nor spoil the ecological balance.
- It causes no harm to living beings.
- Furthermore, the matter in question, that is, taking the ablutions, is not some trivial matter; it is a necessary condition for the obligatory prayers.

If then, despite all the above, it is reprehensible to use excessive water from a river while taking the ablutions, and it was prohibited by the Prophet, how much stronger is the prohibition on being wasteful and extravagant in matters, in which none of the above statements are applicable? That is, if wastefulness

- is in something that requires the investment of time, money and/or effort;
- if it causes degradation of invaluable natural assets, thus spoiling the ecological balance or if it harms living beings;
- if it violates the rights of forthcoming generations to live in a healthy environment;
- if it is arbitrary and meaningless, and merely for enjoyment, that is, for the satisfaction of destructive side of man;²¹ then how much greater would be the degree of prohibition!

²¹ It might reasonably be argued that there are very good reasons for Islam prohibiting wastefulness and prodigality so forcefully. We may put it this way: there are over six billion people living in the world today. Just think of each individual person cutting down a tree or killing an animal just for the fun of it. Six billion trees or animals would perish. Or think of the water they would waste, or the bread or other foodstuffs they would throw away. The serious consequences of those apparently insignificant actions are clear. Moreover, for the greater part it is not possible to reclaim the resources we have polluted, destroyed, or annihilated. It is in this light that we may understand how meaningful was the point emphasized by God's Messenger when he said: "Even if you take the ablutions in a flowing river, do not waste the water," and how important it is for the preservation of the ecological balance.

It will be very striking to consider the implications of such a simple but significant principle in light of the following statistics on global food waste. A recent study²², carried out by the *Swedish Institute for Food and Biotechnology*, shows that

- Globally, one-third of the food produced for human consumption is lost, about 1.3 billion tons;
- Per capita waste by consumers is between 95-115 kg a year in Europe and North America, while consumers in sub-Saharan Africa and South and Southeast Asia each throw away only 6-11 kg a year (it is estimated that the amount of food wasted in the US per year would feed the US population for about 44 to 54 days);
- Counter-intuitively, industrialized and developing countries actually waste about the same amount of food (670 and 630 million tons, respectively).
- Every year, consumers in high-income countries waste almost as much food (222 million tonnes) as the entire net food production of sub-Saharan Africa (230 million tonnes).
- The amount of food lost or wasted every year is equivalent to more than half of the world's annual cereals crop (2.3 billion tonnes in 2009/2010).
- Food losses — occurring at the production, harvest, post-harvest and processing phases — are most important in developing countries, due to poor infrastructure, low levels of technology and low investment in the food production systems; and food waste is more a problem in industrialized countries, most often caused by both retailers and consumers throwing perfectly edible foodstuffs into the trash.

These statistics when considered in light of the significant threats to our most valuable natural assets clearly demonstrate that humankind has lost

²² *The Global Food Losses and Food Waste*, commissioned by the Food and Agriculture Organization .

the checks and balances in its current production and consumption activities. The seemingly innocent and dulcet “laissez-faire” rhetoric in capitalist system promoted the removal of all meaningful checks and balances pertaining to production and consumption activities, and have resulted in the terrific destruction of our natural assets. As clearly seen in above statistics, excessive consumption (and so production) and squandering are in the heart of the global environmental problems, and there is a strong need for the revival of the critical human values of moderation and thriftiness. Cumulative burden of individual irresponsibility can no longer be tolerated. A native American indian proverb is worth to remember in this context: “When all the trees have been cut down, when all the animals have been hunted, when all the waters are polluted, when all the air is unsafe to breathe, only then will you discover you cannot eat money.”

4. Role of Islam in Promoting a More Environmentally Friendly Future

Islam is a religion of moderation; moderation refers not only to the personal lives of the believers but also to their interaction with fellow human beings and the nature they live in. Although, by being the vicegerents of God, human beings are in a very special and unique position, this does not warrant them to live merely as they wish, and on the contrary, they are expected to lead a purposeful and caring life. Muslims need to surrender themselves to the law of God, as evident in nature and in the Qur’an. Izzetbegovic (1994) rightly underlines the fact that “a Muslim, due to the balance of physical and moral requirements, will be in better harmony with his surroundings than any other type of man,”²³ on the condition that he lives his life in accordance with the Qur’anic principles as reflected in the life of Prophet Muhammad (pbuh) (Goulet, 1980).²⁴ The Qur’an goes further, and calls all nature *muslim* (“submissive”). The only difference between nature and man is that

²³ Alija Ali Izzetbegovic, *Islam Between East and West* (Ankara, 1994), p.226.

²⁴ Goulet emphasizes this point as follows: “High indices of suicide in ‘developed’ countries have often blinded observers to the truth that material sufficiency, or abundance, may be less essential - even for survival - than is the presence of meaning. In order to survive one must want to survive, but how can one want to survive unless life has a meaning? Accordingly, having a meaningful existence may well be the most basic of all human needs.” Denis Goulet, “Development Experts: The One-Eyed Giants,” *World Development* 8 (1980), pp. 481-89.

nature is *muslim* without free will, implying that only man can be Muslim by his own free choice.

A careful analysis of the history of Islam, especially the history of Qur'anic exegesis, from an environmental perspective, will reveal that "although the various components of the natural environment serve humanity as one of their functions, this does not imply that human use is the sole reason for their creation" (Deen, 1990)²⁵. Both classical and contemporary Muslim scholars have interesting views on this matter. For example, al-Biruni, one of the most learned Muslim scholars and compilers of the tenth century, argues that "man does not have a right to exploit the other kingdoms for his own desires, which are insatiable, but may use them only in conformity with the law of God and in His way."²⁶

A fundamental principle of Islam is that nothing is created without a purpose, and all creation have to be respected and not be harmed without any sound reason. Islam rejects the idea that the nature (or any other creation in this context), is an object at the full disposal of humankind for the realization of their desires. Nature has been entrusted to mankind, as they are God's vicegerents on earth. Human beings are not the lords of nature and the world, however; nothing is at their disposal to be used haphazardly and irresponsibly. What is important in the Qur'anic context is that human beings are responsible and accountable for their actions here on earth. This means that they are answerable for all that they do, both the good and the evil. As God's vicegerents, on the Day of Judgement, they will be called to account for all actions in fulfilling this trust: "Whoever does an atom's weight of good shall see it, And whoever does an atom's weight of evil, shall see it" (Qur'an, 99:7-8). Similarly, "So glory to Him in whose hands is the dominion of all things: And to Him will you be all brought back" (Qur'an 36:83). According to Yusuf Ali, the message conveyed in this

²⁵ Mawil Y. Izzi Deen (Samarrai), "Islamic Environmental Ethics, Law, and Society," in *Ethics of Environment and Development. Global Challenge, International Response*, ed. J. Ronald Engel and Joan Gibb Engel (London: Belhaver Press, 1990), p. 189.

²⁶ Nasr, *Introduction to Islamic Cosmological Doctrines*. Nasr provides valuable information about al-Biruni: "Al-Biruni represents the point of view of the scholar and compiler as well as that of the mathematician and astronomer. As a very competent scientist, historian, and general observer and commentator on the civilizations of mankind, *he approaches the study of Nature as a devout Muslim who sees the world as the handiwork of God and considers the observation and study of Nature as a religious duty*" (Ibid., 275-276, italics added.).

last verse is the core of revelation; it is all about the hereafter. All things were created by God, are maintained by Him, and will go back to Him. But the point of special interest to man is that he will also be brought back to God and is answerable to Him, and to Him alone.²⁷ In short, although man has been given a special place and rank in the hierarchy of creation, “man is invited to use the opportunity for good and not to corrupt the earth.”²⁸ This Qur’anic worldview is first observed and exemplified in life of the prophet Muhammad (pbuh); as his life is regarded by Muslims as the living Qur’an this had a powerful exemplary effect on Muslims throughout the ages. Being imbued with the Prophet’s attitudes, Muslims have looked on nature compassionately and with tolerance. Today, all these values are awaiting rediscovery and adoption, so that the devastating environmental problems and challenges of our age can be addressed in a timely and effective manner.

In brief, Islam provides a safe haven for the environment through the following principles, as indicated in its fundamental sources, the Qur’an and the traditions of the Prophet:

- The natural world has an ontological and objective existence as has been created by God, and which reflects His Divine Names and Attributes.
- Nature as a whole, being created and sustained by God, has intrinsic and inherent value, independent of its usefulness for human beings.
- Human beings, though being at the top of creation, are only members of all creation in this universe like nature. They have responsibilities towards all other creation (including the environment they live in), just as they have responsibilities towards their families.
- Human beings are the vicegerents of God on earth, and therefore they will be judged in the hereafter for their actions here. They will be held accountable for their actions related to the environment as well.

²⁷ Yusuf Ali, translator, *The Holy Qur’an* (Maryland: Amana, 1983), 1188.

²⁸ Rahman, *Major Themes*, 79. Qur’an 30:41: “Mischief [corruption] has appeared on land and sea because of (the meed) that hands of men have earned” and the very idea of corruption repeated in the Qur’an on many occasions.

- Biodiversity and the richness of the ecosystem is a result of God's creation and His Will, therefore it should be respected and maintained.

- Nature has been created in order, balance and with extraordinary esthetic beauty, and all these aspects of nature while enhancing man's life here, should be honored, utilized and protected accordingly.

- All patterns of man's production and consumption should be based on an overall order and balance of nature. The rights of man are not absolute and unlimited. We cannot consume and pollute nature as we wish. Excessive consumption, extravagance and squandering are all disliked and not permitted.

- Prevention of corruption on earth in general, and prevention of the appearance and emergence of corruption in ecosystems in particular, are considered to be among the primary responsibilities of all believers.

The Qur'an changed the hearts and minds of its followers when it dawned on the Arabian Peninsula, enriching man and providing a vivid lens through which he could establish a functional and prudent interaction with the nature and everything else around him. Today, at the dawn of the twenty-first century and in a time of world-wide environmental crisis, it again can play such a critical role, and offer human beings a fresh perspective as well as a comprehensive and competent approach to the nature towards addressing the global environmental problems. The relationship that the Qur'an enjoins between humans and non-humans is stated very eloquently and succinctly by Yunus Emre, a Sufi poet of the thirteenth century: "We love all creation for the sake of its Creator"!

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