

## Islamic Approach to Environmental Sustainability: Review of Worldview, Philosophy Teachings

Shaikh, Salman Ahmed

National University of Malaysia

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# Islamic Approach to Environmental Sustainability: Review of Worldview, Philosophy & Teachings

### Salman Ahmed Shaikh<sup>1</sup> & Abdul Ghafar Ismail<sup>2</sup>

#### **Abstract**

Economic choices influenced by animalistic instincts in an ethically neutral framework have not only resulted in huge disparity in distribution of income, wealth and standard of living, but, as we now realize, it has also resulted in unprecedented loss to ecology and environment with catastrophic consequences for future generations. More than ever, economics as a discipline of knowledge needs an ethical base to rekindle spiritual rationality that can enable us to take into account equity considerations more explicitly in economic choices at the individual and at the societal level. This paper explains how Islamic economics can help in bridging the gap. The paper explains the teachings of Islam on different environmental issues and shows how Islamic worldview and teachings can help in encouraging and reinforcing environmental friendly behavior and choices.

**Keywords** Environmental Economics, Resource Economics, Climate Change, Sustainable Development, Islamic Economics

**JEL Codes** *Q2*, *Q3*, *Q5*, *I3* 

#### 1. Introduction

In the early literature on development, per capita GDP was considered a sufficient enough barometer to judge the level of development in a country. Back then, the long run macroeconomic literature focused on capital accumulation as one of the primary instruments to ensure development. Haq (1963) gave the concept of functional inequality in 1960s. However, functional inequality of income and social utility of greed could not ensure trickle down of economic growth benefits.

Haq (1995) later on accepted that humans are 'means' as well as 'ends' of any development process or initiative. He finally accepted that 'Ends' cannot be sacrificed for the future, even when benefits are certain, and ignoring 'ends' undermines the entire development process. Rather than expecting growth to take care of poverty; if we instead take care of poverty, then economic growth will come inevitably.

But, during the last 30 years, a lot of other challenges have sprung up which require a renewed focus on environmental resource conservation, equitable income distribution, intergenerational

<sup>&</sup>lt;sup>1</sup> Salman Ahmed Shaikh is a PhD scholar in Economics at National University of Malaysia. He can be contacted at: <a href="mailto:salman@siswa.ukm.edu.my">salman@siswa.ukm.edu.my</a>

<sup>&</sup>lt;sup>2</sup>He is head of research division, Islamic Research and Training Institute, Islamic Development Bank and Professor of Islamic Banking and Financial Economics. He is currently on leave from School of Economics, Universiti Kebangsaan Malaysia. He can be contacted at <a href="mailto:agibab@ukm.edu.my">agibab@ukm.edu.my</a>

equity and enhancing social infrastructure. During the 20th century, world population increased by a factor of 4, industrial output grew by a factor of 40, energy consumption increased by a factor of 16, fish harvesting increased by a multiple of 35 and CO<sub>2</sub> and SO<sub>2</sub> emissions grew 10 times. During 1981–2005, global GDP more than doubled, but much of world's ecosystems were exploited unsustainably.

Is rapid growth accompanied by equally rapid depletion of environmental resources and high fiscal deficit and public debt burden a truly admirable growth model? Just at the right time, the concept of sustainable development has come to the shore. It is realized that for growth to be sustainable, the growth shall provide widespread benefits and must not come at the expense of worsening income distribution and environment quality.

In a World Bank report (2006), it was highlighted that the use of energy per capita in high income countries is more than 5 times as much as in developing countries, and with only 15% of the world's population, high income countries use more than half of its energy (World development Indicators, 2006). In Stern Review (2006), it was highlighted that United States is found to be the most polluting country in the world together with Europe which accounts for around 70% of World's pollution.

Mortazvi (2004) pinpoints the root of the problem and states that the concern over the tragedy of the commons emanates from the fact that Western economics has become a discipline devoid of values. Exploitation of the natural environment can be abated when individuals consider intergenerational welfare and justice to be important factors in their economic decisions.

Even if the fiat money is printed excessively, it cannot substitute and exchange nature beyond capacity. The cost of irreversible actions will be more profound and disadvantageous when we will have less of natural resources and ecosystem services. Khalid (2002, pp. 332) explains the effects of growth led by fiat money expansion as follows:

"These tokens of value that we create from nothing and use everyday grow exponentially ad infinitum. But we know that the natural world, which is subject to drastic resource depletion, has limits and is finite. This equation is lopsided and the question is for how long can we continue to create this infinite amount of token finance to exploit the real and tangible resources of a finite world?"

Hassan (2006) shares the same line of thought and states that in the international arena, nothing can help except realization of common danger, discipline and sacrifice for common good. Free riding can hardly be condoned. Instead of preservation and restraint, we are borrowing from the future to consume now via the credit card culture. In a word, we are jeopardizing the future of our children let alone leaving them in at least the same position as ours. ASTRÖM (2011) explains that one of the problematic points of view of today's generation is that they have the rights of limitless ownership without taking into account the responsibilities towards society and humanity.

Costanza et al. (1998) estimate that the minimum annual average value of ecosystem services is 1.8 times the global GNP. Hence, the replacement cost is more than the economic output we produce annually. On the other hand, many ecosystem services are literally irreplaceable.

While the concept of human capital development and sustainable development are richer than the exclusive focus on economic growth, the focus in twenty first century should now also lift from a human centric focus of development to an ecological balance now and in future. Rather than focusing our attention on achieving weak sustainability based on Hartwick's (1977) rule whereby the net dynamic change in the value of different forms of capital like physical  $(\dot{K})$ , human  $(\dot{H})$ , social  $(\dot{S})$  and natural  $(\dot{N})$  must be positive overtime, i.e.  $(\dot{K} + \dot{H} + \dot{S} + \dot{N} \ge 0)$ , we need strong sustainability whereby the value of each of the different forms of capital grows dynamically, i.e.  $(\dot{K} \ge 0, \dot{H} \ge 0, \dot{S} \ge 0, \dot{N} \ge 0)$ .

In this paper, we present the Islamic worldview mathematically and its implication on behavior and choices. We also cite specific verses and ahadith from Islamic sources to highlight the significance that Islam has given to identify ideal socio-ethical and responsible behavior for humans in their role as trustee and custodian of environment and other resources.

#### 2. Inadequacy of Neo-Classical Theoretical Framework

After Renaissance in Europe, Western social sciences originated and developed under the influence of Social-Darwinist worldview. Hence, it was inevitable to see the emergence of extractive institutions at the macro level which resulted in growing income inequalities and the rapid surge of consumerism which has now challenged the planetary boundaries of sustainable existence, let alone sustainable development. This secular paradigm has resulted in ethical neutrality, a wedge between market and social costs of environmental goods and resources, overexploitation of common property resources, free-riding on public goods and intergenerational inequity in resource distribution.

The mainstream neo-classical consumer theory overemphasizes the role of consumer sovereignty which results in exogenous treatment of preferences in theoretical economic models. Commitment to this paradigm reflects in negative consequences in society. Strikingly, some sport stars and showbiz professionals earn equivalent sum as compared to the entire GDP of many poor countries. Neoclassical economics is neutral between ends. As long as people can put up dollar votes for their preferences, resources will be allocated on producing, marketing and distributing inessential goods even if a quarter of world population lives in poverty. Overreliance on Pareto efficiency paralyzes the equity and ethical concerns of development policy change. As per Pareto efficiency, it is inefficient to help millions of poor to make them better off while making any single rich person worse off.

Since mainstream consumer behavior theory is based on a rational maximizing model, as explained by Thaler (1980), it describes how consumers *should* choose given the model and its assumptions; however, not necessarily describing how they *do* choose. Mainstream consumer behavior theory is normatively based and it only claims that it is also a descriptive theory. But, in many cases, the mainstream consumer theory fails to predict the economic choices either because

of rigid axioms or simplistic preference structure. Sen (1977) explaining the shortcomings in the structure in neoclassical approach comments as follows:

"A person is given one preference ordering, and as and when the need arises this is supposed to reflect his interests, represent his welfare, summarize his idea of what should be done, and describe his actual choices and behavior. Can one preference ordering do all these things? A person thus described may be "rational" in the limited sense of revealing no inconsistencies in his choice behavior, but if he has no use for these distinctions between quite different concepts, he must be a bit of a fool."

Gowdy & Mayumi (2001) correctly argue that monotonicity axiom is irrelevant in environment goods where the balance and coherence matters more than abundance. Health goods also require a balance for their effectiveness. Same is true when consumption is analyzed with respect to health effects. Moreover, just like the consumer choice implicitly maintains or should maintain a balance that satisfy balance with regards to health effects of consumption, the mainstream consumer theory will be much better off by giving due importance to the balance with regards to the ecology, biodiversity and intergenerational equity. This may require incorporating the attribute of 'commitment' in consumer theory (Sen, 1977).

Furthermore, 'Ultimatum Game' reflects the fact that people tend to look at their choice outcomes relatively. Prisoner's Dilemma highlights the fact that choices by each player in a self-centric way are not necessarily going to be best for them either individually or collectively. Simon (1957) argues that information processing capability of consumers is limited in real world scenarios than the idealistic assumptions made by rational economic framework. Furthermore, recent evidence in behavioral finance and consumer psychology points to the fact that consumer information processing capabilities are limited and prone to error. Alias paradox (1953) and Ellsberg paradox (1961) are good examples of this phenomenon.

Though, in neoclassical utility maximization stream of literature, social interactions had been explored by Becker (1974). Becker (1974 & 1976) explores intra-family relations, charitable behavior, merit goods and multi-persons interactions, and envy and hatred. But, the analysis is focused on rationalizing non-economic behavior to study it as following an economic decision making process. Later on, Andreoni (1989 & 1990) explains that people engage in impure altruism when they contribute in charity or donate for public goods. Hence, these charitable acts also emanate from self-interest, i.e. to get fame, satisfy ego or change the living environment to improve one's own social experience and relations.

However, it is clear that these are not the strong motivations where people also pay anonymously and even when they have non-satiation. Humans are much more than utility maximizing machines. They can be as much altruistic as they can be reckless. Their behavior and choices reflect social learning and emanate from their worldview. Recent happiness studies reflect that countries relatively better off on happiness index are also the ones with higher suicide rates. Humans are capable of using both material rationality and moral rationality to differentiate right from wrong and need reinforcement to adopt virtues influenced by an inner urge other than just

material interests. In the next section, we discuss how Islamic paradigm explains human welfare in contrast with self-centric utility maximizing *homo economicus*.

#### 3. Human Welfare in Islamic Paradigm

There is growing interest in literature on agents with multiple preferences. Kalai et al. (2002) consider a basic model of multiple selves in which choice is optimal according to one of the selves. Green & Hojman (2007) develop a multiple-self model that allows partial inferences of preferences. Recently, Ambrus & Rozen (2008) also develop a multiple-self model.

We do not wish to present here a model for empirical analysis, but for concise presentation of how a person is ought to make decisions in the worldview of Islam which presents information set through divine guidance with its own set of incentives and constraints.

We do not need to define multiple selves. In fact, according to Islamic worldview, human welfare in Islam encompasses economic welfare, but comprises much more than that. The achievement of human welfare is sought in both aspects of human life, i.e. worldly life and eternal life hereafter. Sadeq (1987) explains that Islam emphasizes the achievement of human welfare which is more comprehensive than economic welfare. Chapra (1999) also explains that while economic development is indispensable, it is not sufficient to realize overall human well being by default. In recent years, even the western concept of development has recognized the wider dimensions of human development and the role of institutions (Mirakhor & Askari, 2010).

Hence, the human welfare function can be represented by:

$$W_h = f(\alpha W_t, \alpha^m W_e)$$

Where

W<sub>h</sub> is total human welfare in both aspects of human life.

W<sub>t</sub> is human welfare in worldly life.

W<sub>e</sub> is human welfare in eternal life hereafter.

We can further explain this model to define  $W_t$  and  $W_e$ . Both these functions are defined as follows:

$$W_t = f(Z_t)$$

Where  $Z_t$  is a vector of variables which belong to the category of 'individual specific positive utility gaining factors'.

The constrained set which is a union of three sets is defined as follows:

$$C_S = \{ C_{worhip} \} U \{ C_{self} \} U \{ C_{society} \} U \{ C_{people} \}$$

 $C_{\text{self}} = \{\text{five times prayers, one month fasting, obligatory charity, hajj pilgrimage once}\}$ 

 $C_{self} = \{Acts which harm a person's own ethical and spiritual existence\}$ 

 $C_{\text{society}} = \{\text{Acts which harm society and its institutions}\}$ 

 $C_{people} = \{Acts which harm other people, their rights, freedom or property\}$ 

Hence, Islam does not deny individuals to fulfill their specific desires they can achieve in career, marriage, family life, business, eating variety of food, wearing variety of clothes, travelling, fine arts etc. It also does not deny temporary indebtedness to achieve these things which can help smooth the intertemporal consumption in this world.

Where Islam intervenes is in identifying for our own benefits the ills in potential acts which may harm us and/or the society and hence reduce the overall human and societal welfare. It is possible that we feel temporary satisfaction in some potential acts, but their long term impact on our spiritual and ethical existence and collective impact on society may reduce the overall human and societal welfare.

We can define the eternal life welfare function as follows:

$$W_e = f(Z_e)$$

Where  $Z_e$  is a vector of variables which belong to the category of 'following Allah's commands which will bring non-decreasing positive utility gain in life hereafter'. These commands do not segregate a human's life in two compartments. Rather, these commands help the humans to live this worldly life in the best possible manner of obedience to Allah and while being responsive and sensitive to the duties that they have to carry out in different roles of life.

Eternal life has no constraint set. Hence, unlike the usual constraints in Economics which limit the optimum value of a function, our constraint sets in worldly life is welfare maximizing in the long run for individuals. The worship set also reinforces the commitment not to violate the other three sets of constraints. The last three constraints which belong to the category of Huquq-ul-Ibaad are necessary conditions for welfare maximization of self and when they are not violated by individuals, the society also benefits. Islam emphasizes that humans should embrace spiritual rationality as a compliment to material rationality so as to achieve total human welfare.

The achievement of lasting happiness and non-decreasing positive utility will only happen through maximizing both the functions, especially the eternal life function. We shall have both  $W_t>0$  and  $W_e>0$ .

Plus, Islam requires people to live modest but decent lives and fulfill their own needs and family needs. Islam does not permit monasticism and does not encourage celibacy. Hence,  $W_t$  not only shall be positive, but also achieve a threshold ' $w_o$ ' where the ' $w_o$ ' represents welfare from minimum level of standard of living that qualifies as balanced standard of living within bounds of Islamic injunctions without lavishness and violating the constraint sets.

The constraints of the life may sometimes require a tradeoff between the two functions. In such instances, the trial is to choose the right path ordained by Allah so as to achieve maximum human welfare in the eternal life. It is achieved because of the parameter ' $\alpha$ '. Things that we enjoy in this world will be replaced by similar things in the afterlife, but they will provide much more utility and they will not be finite nor will our satiation at any time shall have binding constraints. The difference between the utility of same bundles traded off in this life for afterlife will be given by the positive multiplier in the exponent of parameter ' $\alpha$ ' that is part of the eternal life function.

In the last two sections, we discussed the self-centric utility maximizing *homo economicus* who believes in this worldly life only, who aspires to have absolute freedom and who believes in Social-Darwinist worldview. We also discussed how Islamic paradigm explains human welfare in this section. In the next section, we present the contrasts in behavior and choices that result from the differences in these two worldviews.

#### 4. Contrasting Implications of Islamic Worldview

In the mainstream economics, utility (satisfaction) is assumed to be attained when the person consumes the material goods and services which bring satisfaction. Even though, there is room in utility maximization models to incorporate empathy, altruism etc, but, the models remain neutral between ends.

With belief in Allah, a Muslim's scope of life and objective is different. His principal goal is to seek Allah's pleasure and succeed in the life hereafter. So, a Muslim is supposed to make every decision in a way so as to seek Allah's pleasure rather than pursuing self-pleasure and satisfaction "as an end in itself".

As per Islam, this world is a place for test and this test requires some people to be privileged and some to be deprived. The deprived and privileged are both tested for patience and thankfulness to Allah and how they take care of society and its needs. Hence, this worldview put the focus of all human beings towards the fact that material resources they enjoy are all blessings of Allah and these are instruments for this test nature of life.

Nevertheless, as per Islam, the tendency to seek worldly pleasures from certain goods and services is natural. The test is to nurture one's conscience and fight these tendencies so that they do not grow beyond a certain level. This test is for each person in individual capacity. We cannot completely deny those tendencies. Neither Prophet Muhammad (peace be upon him) nor the pious caliphs (rta) used any means other than moral persuasion to inculcate a parallel righteous behavior alongside these natural tendencies so that they remain mere tendencies, i.e. weak enough to not influence important choices humans make in matters involving a moral issue.

Rather than complimenting humans in their animalistic instincts to keep having one-eyed focus on material well-being only, Islam inculcates piousness, kindness, cooperation and communal responsibility in humans. In some instances, Islam guides explicitly to avoid extravagance, lavishness and using certain products and services which harm a human's ethical existence and well being either individually and/or harm the society in the process. Islamic economics

incorporates ethical values and excludes from the consumption bundle various goods which bring either private loss or welfare loss to the society.

Islamic economics brings a long term perspective to the pursuit of self-interest by informing humans about the positive and negative consequences of their actions and choices in the life hereafter. Resultantly, an Islamic economy will have to rely less on regulation and legal governance to encourage ethical behavior. In the secular worldview, due to the absence of afterlife accountability, the rich people with absolute and inviolable property rights can command natural and environmental resources whose potential lifespan is much more than the lives of their owners. But, if the rich people believe in no afterlife accountability, they can extract and exploit these resources quickly and deprive future generations of their use.

Extinction of species, global warming, climate change, depletion of ozone layer and massive carbon emissions are inevitable results of the secular and individualistic paradigm. Climate change is a slow, but cumulative process. Individual human lifespan is only an infinitesimally small fraction of the life of environmental resources and eco-system services. Hence, the self-centric and this worldly view of life are incompatible with the concerns of sustainability and socially responsible behavior. Rather, the dogmatic commitment to self-centric secular worldview results in inevitable proliferation of pollution as a right and product to be bought and sold in the market economy. It is ironic, but inevitable to see measures such as 'value of statistical life'. On the action and policy front in capitalistic democracies, voter ignorance as well as the public-good nature of any results of political activity tends to create a situation in which maximizing an individual's private surplus through rent seeking can be at the expense of a lower economic surplus for all consumers and producers.

Na'iya (2007) suggests that the effective solution to the environmental problems lies on the overall worldview which spells out the relationship between man, nature and his Creator as well as the implications of one's actions in the hereafter. Religion provides such meaningful conditioning which enables bringing the right balance between human aspirations and the physical limits. Religion also promises salvage from the limitedness of this worldly life in heaven which will be awarded to the most righteous people. This, in turn, provides a permanent incentive to choose righteous behavior as an end with the hope and fear of deterministic results in the life hereafter.

#### 5. Islam & Environmental Sustainability

With the concept of afterlife accountability, Islam immensely influences intertemporal choice and behavior. It helps in private economic agents (consumers and producers) to modify their actions in such a way that takes the externalities into consideration and also their own welfare, both in this world and afterwards. Afterlife accountability stimulate positive change in behavior in a much more comprehensive and permanent manner than any regulation or material incentive could possibly do.

The discussion of 'protection of progeny' as Maqasid-e-Shari'ah by Imam Ghazali shows the ethical commitment for sustainable existence in an Islamic paradigm much well before the reactionary focus in West about sustainable development. Below, we mention several verses

from Quran and sayings of Prophet Muhammad (peace be upon Him) which discuss the responsibilities to the environment.

#### 5.1. <u>Incorporating Social Cost in Private Actions</u>

Prophet Muhammad (peace be upon Him) said:

"I swear by Allah, one cannot become fully Muslim until he (or she) likes for others whatever he (or she) likes for himself (or herself)."

(Sahih al-Bukhari, Vol 1)

Prophet Muhammad (peace be upon Him) said:

"He who cuts a lote-tree [without justification], Allah will send him to Hellfire."

(Narrated in Al-Tirmidhi, Hadith No. 5239)

#### 5.2. Promising Private Rewards to Socially Desirable Actions

Prophet Muhammad (peace be upon Him) said:

"There is none better amongst the believers who plants a tree from which a person, or an animal eats thereof. It is regarded as having given a charitable gift for which there is great recompense."

(Narrated in Sahih Al-Bukhari, Vol 3)

Prophet Muhammad (peace be upon Him) said:

"Whoever plants trees, God will give him reward to the extent of their fruit."

(Narrated in Musnad, v, 415)

Prophet Muhammad (peace be upon Him) said:

"Whoever reclaims and cultivates dry, barren land, will be rewarded by God for the act. So long as men and animals benefit from it, He will record it as almsgiving."

Al-Munawi, Fayd al-Qadir, vi, 39; Haythami, Majmau al-Zawaaid, iv, 67-8.

Prophet Muhammad (peace be upon Him) said:

"If a Muslim plants a tree or grow grains and if a bird, a person or an animal eats from it, it will be counted as a charity for him."

(Bukhara, "al-Kharsve'l-Muzara", Muslim, "Musakaat", H. No: 12)

Prophet Muhammad (peace be upon Him) said:

"Whoever plants a tree and diligently looks after it until it matures and bears fruit, he will be rewarded."

(Narrated in Ahmad b. Hanbal, Musnad, IV, 61, 374)

Prophet Muhammad (peace be upon Him) said:

"Whoever plants a tree and it matures, Allah plants a tree in paradise for that person."

(Narrated in Ahmad b. Hanbal, Musnad, IV, 61)

Prophet Muhammad (peace be upon Him) said:

"If the Hour is imminent and anyone of you has a palm shoot (to plant) in his hand and is able to plant it before the Hour strikes, then he should do so and he will be rewarded for that action."

(Narrated in Sahih Al-Bukhari)

Prophet Muhammad (peace be upon Him) said:

"Removing harmful things from the road is an act of charity (Sadagah)."

(Narrated by Abu Dharr Al-Ghafari)

Prophet Muhammad (peace be upon Him) said:

"A good deed done to a beast is as good as doing good to a human being; while an act of cruelty to a beast is as bad as an act of cruelty to human beings," and that: "Kindness to animals was promised by rewards in Life Hereafter."

(Mishkat al-Masabih; Book 6; Chapter 7, 8:178)

#### 5.3. Ensuring Equity, Absolute Justice & MSB=MSC

The Holy Quran says that:

"He who does good of an atom's weight, he will see it. And he, who does ill of an atom's weight, he will see it."

(Az-Zilzaalaha: Verse 7-8)

#### **5.4. Protection of Bio-Diversity**

Prophet Muhammad (peace be upon Him) said:

"On the day of Judgment, Allah will ask those who kill a sparrow unfairly."

(Narrated in Muslim, Hadith No 57)

Prophet Muhammad (peace be upon Him) said:

"If anyone wrongfully kills even a sparrow, let al.one anything greater, he will face God's interrogation."

(Narrated in Mishkat al Masabih)

It is narrated in Sahih Muslim that:

"A man suffered from intense thirst while on a journey. He found a well, came to it, drank (water) and then came out. Suddenly, a dog appeared with its tongue out due to thirst. The man said: This dog has suffered from thirst as I had suffered from it. He reached down the well and brought water for the dog. So, Allah appreciated this act of his and pardoned him. Then, the companions asked: 'O Allah's Messenger, is there reward even for (serving) such animals'? Prophet Muhammad (pbuh) said: 'Yes, there is a reward for the one who makes a service to any living being."

(Narrated in Sahih Muslim: Book #26, Hadith No. 5577)

"The Prophet (pbuh) was asked whether acts of charity even to the animals were rewarded by Allah or not. He replied: 'yes, there is a reward for acts of charity to every beast alive.'"

(Narrated by Abu Huraira, Bukhari, Vol 3:322. Also Muslim, Vol 4; Hadith No. 2244)

Prophet Muhammad (pbuh) said:

"The one to whom his horse is a source of reward and who keeps it in the path of God, and ties it by a long rope in a pasture or a garden, such a person will get a reward equal to what the horse's long rope allows it to eat in the pasture or the garden."

(Narrated in Sahih al-Bukhari, Vol 3:559)

It is narrated in Sahih Muslim that:

"We were on a journey with the Messenger of God, and He (peace be upon Him) left us for a while. During his absence, we saw a bird called Hummara with its two young and so we took the young ones. The mother bird was circling above us in the air, beating its wings in grief, when the

Prophet Muhammad (peace be upon Him) came back and said: 'Who has hurt the feelings of this bird by taking its young? Return them to her!'"

(Narrated in Sahih Muslim)

"The Prophet Muhammad (peace be upon Him) was seen wiping the face of his horse with his gown. When asked why He was doing that, He replied: 'Last night, I was reprimanded by God for having neglected my horse.'"

(Narrated in Muwatta Imam Malik)

In order to protect land, forests and wildlife, the Prophet Muhammad (peace be upon Him) created inviolable zones known as *hima* and *haram*, in which resources were to be left untouched. *Hima* applies particularly to wildlife and forestry and usually designates an area of land where grazing and woodcutting are restricted, or where certain animal species are protected.

#### 5.5. Conservation of Natural Resources

The Holy Quran says:

"But waste not by excess: for Allah loveth not the wasters."

(Al-Anam: Verse 141)

When the Prophet Muhammad (peace be upon Him) saw Sa'd performing wudu, He (peace be upon Him) said: "What is this? You are wasting water." Sa'd replied: "Can there be wastefulness while performing ablution?" The Prophet Muhammad (peace be upon Him) replied: "Yes even if you perform it in a flowing river."

(Narrated in Ibn-e-Maja)

Prophet Muhammad (peace be upon Him) said:

"(Among the)... three types of people with whom God, on the Day of Resurrection, will neither exchange words, nor look at ... is the one who possesses an excess of water but withholds it from others. God will say to him: 'Today, I shall withhold from you my grace as you withheld from others, the excess of what you had, but which you did not create."

(Narrated in Sahih Al-Bukhari)

#### 5.6. <u>Informing About Value of Natural Resources</u>

In one verse, the Holy Quran says:

"Say: Have you considered that if on one morning, the water you have seeps away. Who then could bring you clear-flowing water?"

#### **Conclusion**

In development economics literature, it has been recognized that humans are the means as well as an end to the growth process. However, the growth experience has led to unprecedented levels of poverty and inequality of income and wealth. Historically, at a given point in time on this earth, there may not have been such disparities in standard of living between various parts of the world as we see now. When ethical neutrality has led us to be oblivious of taking care of our people in our own lives, it is no surprise that it has led to even more apathetic behavior related to our relation with environment and that has important implications for the welfare of future generations. This paper has attempted to explain how Islamic economics with its distinctive ethical principles can fulfill this need and encourage as well as reinforce environmental friendly behavior and choices.

Lastly, we mention a verse from Holy Quran which warns us that on the day of judgment, the seemingly free natural resources we use and exploit can be and will be made alive to speak of the treatment they received from us on the day when nothing else can be more disadvantageous than to have sins we carry forward to the day of judgment.

"When the Earth is shaken with a violent shaking, and the Earth throws out her burdens, and man says: 'What has befallen her?' - on that Day, she shall tell her story!"

(Az-Zilzaalaha: Verse 1-4)

#### References

- Allais, M. (1953). "Le comportement de l'hommerationneldevant le risque: critique des postulatsetaxiomes de l'écoleAméricaine", *Econometrica*, 21 (4), pp. 503 546.
- Ambrus, A., & K. Rozen. (2008) "Revealed Conflicting Preferences", Working paper, Harvard University.
- Andreoni, James (1990). "Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving", *Economic Journal*, 100 (401), pp. 464 477.
- Andreoni, James (1989). "Giving with Impure Altruism: Applications to Charity and Ricardian Equivalence", *Journal of Political Economy*, 97 (6), pp. 1447 1458.
- Aström, Z. Hafsa (2011). "Paradigm Shift for Sustainable Development: The Contribution of Islamic Economics", *Journal of Economic and Social Studies*, 1 (1), pp. 73 82.
- Becker, G. (1974) "A Theory of Social Interactions", *Journal of Political Economy*, 82, pp. 1063 1093.

- Becker, Gary. S. (1976). "The Economic Approach to Human Behavior", University of Chicago Press: Chicago.
- Chapra, M. Umer (1999). "Islam and Economic Development: A Discussion within the Framework of Ibn Khaldun's Philosophy of History", *Proceedings of the Second Harvard University Forum on Islamic Finance: Islamic Finance into the 21<sup>st</sup> Century Cambridge, Massachusetts, Center for Middle Eastern Studies, Harvard University*, pp. 23 30.
- Costanza et al.. (1998). "The Value of the World's Ecosystem Services and Natural Capital", *Nature*, 387, pp. 253 260.
- Ellsberg, Daniel (1961), "Risk, Ambiguity, and the Savage Axioms", *Quarterly Journal of Economics*, 75 (4), pp. 643 669.
- Gowdy, John M. & Mayumi, Kozo (2001). "Reformulating the Foundations of Consumer Choice Theory and Environmental Valuation", *Ecological Economics*, 39, pp. 223 237.
- Green, J., & D. Hojman. (2007) "Choice, Rationality and Welfare Measurement", HIE, RR.
- Haq, M. (1963). "The Strategy of Economic Planning: A Case Study of Pakistan", Oxford University Press: Karachi.
- Haq, M. (1995). "Reflections on Human Development", Oxford University Press: New York.
- Hartwick, John M. (1977). "Intergenerational Equity and the Investment of Rents from Exhaustible Resources", 67, pp. 972 74.
- Hassan, Zubair. (2006). "Sustainable Development from an Islamic Perspective: Meaning Implications and Policy Concerns". *Journal of King Abdul Aziz University: Islamic Economics*, 19 (1), pp. 3 18.
- Kalai, G., A. Rubinstein, and R. Spiegler (2002) "Rationalizing Choice Functions by Multiple Rationales", *Econometrica*, 70 (6), 2481 2488.
- Khalid, M. Fazlun (2002). "Islam and the Environment: Social & Economic Dimensions of Global Environmental Change", *Encyclopedia of Global Environmental Change*, 5, pp 332 339.
- Mirakhor, Abbas & Askari, Hossein (2010). "Islam and the Path to Human and Economic Development", New York: Palgrave Macmillan.
- Mortazavi, Saeed (2004). "Islamic Economics: A Solution for Environmental Protection, Trade, Growth and the Environment". Oxford University.

- Na'iya, I. Ibrahim (2007). "Environmental Issues & Islamic Economics: Nature & Solutions", *Proceedings of the 2nd Islamic Conference*. Islamic Science University, Malaysia.
- Sadeq, A.H.M (1987). "Economic Development in Islam", *Journal of Islamic Economics*, 1 (1), pp. 35 45.
- Sen, Amartya K. (1977). "A Critique of the Behavioral Foundations of Economic Theory", *Philosophy and Public Affairs*, 6 (4), pp. 317 344.
- Simon, Herbert (1957). "Models of Man", Wiley: New York.
- Stern, N. H. (2006). "Stern Review: The economics of climate change", Vol. 30. London: HM Treasury.
- Thaler, Richard (1980). "Toward a Positive Theory of Consumer Choice", *Journal of Economic Behavior and Organization*, l, pp. 39 60.
- The World Bank (2006). "World Development Indicators", World Bank Group.