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الإسلامي والأخلاق
Research Center for Islamic
Legislation and Ethics
عضو في جامعة حمد بن خليفة
Member of Hamad Bin Khalifa University

ISLAM & APPLIED ETHICS

SHARIA-SET AS A FRAMEWORK FOR ADDRESSING CONTEMPORARY ENVIRONMENTAL CHALLENGES

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COMPILED AND EDITED BY: DR FETHI B JOMAA AHMED

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Introduction

*In the name of God,
the Most Gracious,
the Most Merciful*

The Research Center for Islamic Legislation and Ethics (CILE) is pleased to place into the hands of readers this series of booklets, which contain a collection of research papers that have been presented at events organized by the Center. Through these booklets, we are seeking to build a methodological platform that will contribute to the CILE's key objective, namely promoting radical reform. The type of radical reform that we are calling for is based on a fundamental concept: transformational renewal. This concept transcends traditional renovation and *a posteriori* diligence, which tends to maintain reality and adapt to it, assessing and judging its components through the system of five categories of laws in Islam: *Wajeb* (required, obligatory); *Mandoob* (recommended); *Mubah* (permitted but morally indifferent); *Makrooh* (discouraged or abominable); and *Haram* (forbidden or prohibited); in other words, it is rather an evaluative type of jurisprudence. Transformational renovation goes beyond this intellectual space to create a kind of renovation and jurisprudence that addresses facts critically and explores reality intellectually so as to reform it, or even rebuild it if necessary. Moreover, this transformational renovation process puts forward alternative solutions for the shortcomings of the current reality, seeking to establish new means, models, and paradigms at all levels that would achieve

ethical objectives. Therefore, radical reform purports to go beyond superficial issues and directly into the crux of objectives and ethics, beyond minor details into theoretical foundations and frames of reference.

In order to implement radical reform by means of transformational renovation, religious scholars and scientists should share the responsibility. While religious scholars, in many cases, have been capable of judging reality based on specific facts provided by scientists, the task is different with regard to diligence and transformational renovation. This is because an endeavor such as this requires an advanced and comprehensive understanding of both religion and reality. Being well-versed in Islamic Sharia sciences and being formally and partially aware of reality alone will not help bring about transformational reform unless it is accompanied with similar knowledge of our reality, and with today's scientific advancement, this is only possible by involving those specialist scientists and practitioners. The process of building reality on the foundation of proper Islamic ethics and values should be based on a deep and comprehensive understanding that will help analyze the reasons behind malice, which drive people to engage in substandard activities. This understanding may lead to the introduction of alternative solutions and new practices, which are more deeply founded on scientific knowledge. Not dismissing the sound efforts and evaluative diligence of religious scholars, neither Islamic Sharia scholars nor scientists alone should monopolize knowledge or assume the sole responsibility for undertaking reforms in society.

CILE activities are noteworthy for bringing together both religious scholars, scientists and experts. We do not seek to address the evaluative process, which is limited to understanding reality through judgment and adaptation, drawing on

permissions or prohibitions. Rather, CILE activities facilitate an open dialog between scholars and expert practitioners, who can collectively propose how best to undertake radical reforms and recommend solutions that are at once inspired by Islamic principles and supported by scientific knowledge.

Although the combined work of religious scholars and scientists constitutes a fundamental methodological basis for transformational renovation, it should be coupled with many other elements pertaining to the methods, theories, and objectives of science. For instance, traditional Sharia scientific methods do not preclude the desired type of renovation. At the same time, modern science has failed to focus on ethics, as it has not addressed ethics as a fundamental issue. On the contrary, modern science relegates ethics to a secondary position. This raises the issue of the division of sciences into religious and secular sciences, and of their tendency to focus excessively on highly specialized topics without associating them with greater universal themes.

Undoubtedly, this undermines the communication between scholars from various disciplines and thwarts their efforts to work together to develop an epistemological approach that combines their knowledge to serve the important purpose of promoting ethics. Therefore, the challenge set before us is not to persuade scholars belonging to various disciplines and backgrounds to work together. Rather, it is to shake them in their scientific safe havens and drive them to push through the epistemological paradigms governing their own knowledge in order to set up a new system and outline methods for the goal of achieving renewal.

Enhancing its specialized research activities aimed at facilitating and exploring the communication between religious scholars, scientists and experts, the CILE convened a three-day

closed seminar from 4th to 6th January 2014 in Education City, Doha, Qatar, to consider the contemporary challenges of and the relationship between Islamic ethics and the environment.

Outstanding scholars, experts, and intellectuals with theological and professional experience from around the world participated in the seminar including Dr Syed Nomanul Haq, Dr Ibrahim Ozdemir, Sheikh Dr Ali Al-Qardaghi, Dr Franz-Theo Gottwald, Dr Benjamin Hale, Dr Abdul Majeed Tribak, Sheikh Dr Abdul Majeed Al-Najjar, Dr Richard (Dick) Shaw, and Isabel Schatzschneider, in addition to Dr Tariq Ramadan and Chauki Lazhar. The seminar was moderated by Dr Moaal Izzidien.

The CILE requested the participants to address the following questions:

- (A) What are the major contemporary environmental issues and which religious and ethical input is available to help solve them?
- (B) What are the ethical principles that can provide a framework for addressing contemporary environmental challenges?

This booklet includes some of the research papers presented in this seminar is a part of CILE book series that we hope will contribute to our project of transformational renewal.

CHAUKI LAZHAR, *CILE Deputy Director*

About the Authors

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FRANZ THEO GOTTWALD. Dr Gottwald studied Catholic theology, philosophy, social sciences, and Indology. He held several research trips to Thailand, India, and the Philippines. He has been in Munich since 1988, Director of the Schweisfurth Foundation. He studies and teaches as an honorary professor of Agricultural, Food and Environmental Ethics at the Faculty of Agriculture and Horticulture, Humboldt University of Berlin,

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Since 2008, he has been directing volunteers at the Foundation for Cooperative and Collective Development in Mountain. He is a member of several professional organizations such as the Federation of German Scientists, the German Society for Philosophy, the Society for Economic and Social Sciences of Agriculture (GEWISOLA), the Bavarian Academy for Rural Areas, and the Global Ecological Integrity Group (GEIG).

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tributed with her research on the German Halal market. Since 2014, Isabel Schatzschneider has been working as an academic researcher on politics and media in the Middle East at Ludwig Maximilian University of Munich.

Sharia Objectives As a Framework for Addressing Contemporary Environmental Challenges and the Ethical Governing Rules

Ali Mohyi Al-Din Al-Qaradaghi

In the Name of Allah, the All-Merciful, the Ever-Merciful

Praise be to Allah, the Lord of the worlds. May Divine Peace and Blessings be upon the Last Messenger sent as Mercy to all creations, and upon his family, companions, and those who follow his guidance to the last day of the world.

He who explores elaborately the Holy Qur'an will discover how greatly the Qur'an cares for the environment to an extent excelling even modern regulations and laws. Such due care clarifies that the environment is our first mother, from which we have been created and into which we shall return. It is our source of joy and health when it is good and balanced and our way to dooms and afflictions when it is spoiled and imbalanced. Hundreds of Qur'anic verses are there to preach the paramount importance of rehabilitating and reforming earth. They also warn against the grave dangers of contaminating or spoiling it. The Islamic law enacted strict punishment to deter crimes against earth.

This study highlights the environment from the higher objectives of Islamic perspectives as a framework for addressing contemporary ecological challenges. It reviews the great principles that the Holy Qur'an and the Honorable Sunnah founded and the basic relationship between the Sharia objectives and the environment. Proper treatment then follows focusing on the salient ethical principles in handling environmental issues.

We adopt the analytical and deductive methodologies as possible as we could within the scope that God bestows on the writer, who really needs God's Help and Providence, in order to build an integral theory that helps us get the necessary ecological balance.

May God grant me success, galvanize my work with sincerity, and relieve my mistakes and deviation in creed, word, and deed. He is my Guardian and Sufficient is He for me as Guardian and Helper!

Basic Terms of the Title

1. Abstract definition of *Maqasid*

Maqasid is the plural of *maqsid*. It is literally a verbal noun derived from *qasada*. It conveys several meanings including determination, direction, adopting the straight path, justice, and moderation.¹ Technically speaking, "*maqasid Al-shari'a*" is defined as the prudent meanings and wisdoms that the law-giver observes in all or most of legal enactments. They exist in general areas of Sharia rules, but not restricted to a specific area thereof.² It is also defined as the far ends for which the Sharia laws have been laid down for the welfare of all people.

2. Definition of *Beeah* (environment)

Beeah (Arabic for Environment) literally means an accommodation, retreat, or return. It is derived from "*ba'a*", that is, to return. It is called *tabawwa'a Al-makan*, that is, to prepare a home for accommodation, and to dwell and stay therein.⁴ This literal meaning indicates that the earth is our home and thus it is mandatory to look after it. Indeed, it is the big home of life and the place unto it humans retreat after death. The United Nations Conference on the Human Environment, held

in Stockholm in 1972, defined environment as whatever surrounds man.⁵ This is equally applied to place, air, winds, fauna, flora, fume, gas, light elements, etc. In this context, the general nature of this definition is similar to the several ecological indications of the Holy Qur'an:

- «And remember when He made you successors after 'Ad (people) and gave you habitations in the land, you build for yourselves palaces in plains, and carve out homes in the mountains. So remember the graces (bestowed upon you) from God, and do not go about making mischief on the earth» (the Qur'an: 7:74).

The verse clearly mentions the human environment emphasizing the plains used as proper locations for palaces and the mountains carved out for building houses, and indicating God's countless bounties. Finally, the verse forbids all pursuits and forms of mischief on the earth, whether against the earth or the creations over it.

The Qur'an and Environment:

The Qur'an speaks of the environment in so many verses:

1. *Al-Ard* (the earth) has been mentioned 390 times in the Holy Qur'an on various areas. A special attention is paid in these verses to the wisdom and purposes underlying God's subjecting the earth to man for man's benefit, so human reform of earth is encouraged, whereas mischief and harm are condemned. They also forewarn the grave consequences of spoiling the earth. Indeed, God had created it in the best form of beauty, perfection, and adequate usability preparing it for humankind to live and use in the interest of people's life and religion. For example, God (May He be exalted) says,

- «Do not mischief on the earth after it has been set in order» (the Qur'an, 7:85)
- Describing the wrongful tyrants, God (May He be exalted) says, «And when he turns away, his effort in the land is to make mischief therein and to destroy the crops and the cattle, and God likes not mischief» (the Qur'an, 2:205)

2. *As-Sama'* (pl. *as-Samawat*) (i.e. heaven/heavens) have been mentioned 311 times, denoting the importance of the heaven, as it grants us several bounties and from its clouds comes rain and blessings. God submits the heavens and the earth for humankind to use them for man's welfare and to thank God for it; otherwise, God can send punishment, affliction, and even stony storms thrown at them as well as horrible miracles from the heaven instead of good bounties.

3. Substance of earth and heaven, which are ecologically called (solid, liquid, and various gases)

Not only did the Qur'an mention the earth, the heaven, and what is in-between, but it also explained the physical elements of ecology, which has the name of solid nature including soil, valleys, mountains, plateaus, deserts, rocks, and different types of solid minerals and liquid elements, and the various gases in addition to the effect of subterranean substances on the earth in forms of pressure, heat, or direct global warming as happens in water explosions and volcanic eruptions.⁶

- a. The Solid Matters: the Qur'an repeats the term "*turab*" (i.e. dust), and its relevant derivatives 22 times, clarifying that man is created from dust. "*Teen*" (i.e. mud) has been mentioned 12 times and "*jabal*" (i.e. mountain) and the relevant derivatives have been repeated 39 times, speaking of

the importance of mountains, their role in stabilizing the earth, and their various useful aspects. The term “*hadeed*” (i.e. iron) has been mentioned six times with a focus on its several benefits and that God imbued Dawûd (David) with the grace of making iron soft for his sake. Finally, the term “*sakhr*” (i.e. rock) is mentioned only once, whereas “*sakhrāh*” (i.e. one rock) is mentioned twice.

- b. In addition to the Qur’anic mention of solid elements of nature, it mentions the liquid elements such as water that occurs 64 times, showing its importance and benefits, as it is the origin of the cosmos and man. God creates man and all other organisms from water and the original material of the cosmos itself was only water at the very beginning. The term sea is mentioned 43 times, while river has been mentioned 53 times.
- c. The Qur’an pays due care to the protection of earth from toxic gases. God (May He be exalted) expounds how He makes the heaven a roof, safe and protected from all tangible and intangible harms and toxic gases, God (May He be exalted) says:
 - «And We have made the heaven a roof, safe and well-guarded. Yet they turn away from its signs (i.e. sun, moon, winds, clouds, etc.)» (the Qur’an, 21: 32).
 - «And We have guarded it (near heaven) from every outcast *Shaitan* (devil)» (the Qur’an, 15: 17).
 - «His Kursi (Divine Majestic Chair) extends over the heavens and the earth, and He feels no fatigue in guarding and preserving them. And He is the Most High, the Most Great» (the Qur’an, 2: 255).
- d. Natural Powers, such as the gravity, and the interactions between planets, suns, and orbits. In the context of remembering God’s graces on humankind, the Qur’an mentions

these orbits and interactions between planets, suns, and stars. God (May He be exalted) says: «It is not for the sun to overtake the moon, nor does the night outstrip the day. They all float, each in an orbit» (the Qur'an, 36:40).

- The Qur'an further clarifies how God has been submitting the universe to man and making it readily usable for them and habilitating man to construct it through the several Divine bounties, especially the creation of gravity to keep the heavens and earth in their positions, God (May He be exalted) says: «Verily! God grasps the heavens and the earth lest they should move away from their places, and if they were to move away from their places, there is not one that could grasp them after Him. Truly, He is Ever Most Forbearing, Oft-Forgiving» (the Qur'an, 35: 41). Other graces include the moonlight, solar energy, and other benefits that every planet could give, God (May He be exalted) says: «It is He Who made the sun a shining thing and the moon as a light» (the Qur'an, 11:5). God (May He be exalted) also says: «And We have made (therein) a shining lamp (i.e. the sun)» (the Qur'an, 78:13). These graces also include the succession of day and night, the winds sent for fertilizing plants and carrying clouds to rain, etc.
- e. Organisms including animals and plants that God subjected to man to perform his role on earth perfectly. Hundreds of verses speak of this fact with focus on plants and trees as well as different classes and benefits of animals.
- f. Urbanism and construction: The Qur'an emphasizes the important role of urbanization and construction. Indeed, overhauling and reclaiming earth is one of the most significant purposes for human creation and dominance on earth, God (May He be exalted) says: «He brought you forth

from the earth and entrusted you with developing it» (the Qur'an, 11:61).

- g. Ecological balance: The Holy Qur'an laid down a set of right ecological criteria and regulations such as the balance and economic use, avoidance of ecological abuse and wrongful behaviors, and abstention from mischief and perilous practices. God (May He be exalted) says: «Do you not consider how your Lord dealt with (the tribe of) 'Aad, with many-columned *Iram*, the like of which was not created in the lands. And with (the tribe of) *Thamud*, who clove the rocks in the valley; and with Pharaoh, firm of might, who (all) were rebellious (to God) in these lands, and multiplied iniquity therein? Therefore, Your Lord poured on them the disaster of His punishment. Surely, Your Lord is ever watchful» (the Qur'an, 89: 6–13).

There are many verses where the Holy Qur'an explicitly confirms the preservation of necessary balance, since God has created every single thing in an exact balance and delicate proportion; God (May He be exalted) says: «We have created everything by measure» (the Qur'an, 54:49). God (May He be exalted) also says: «And the earth We have spread out, and have placed therein firm mountains, and caused to grow therein all kinds of things in due proportion» (the Qur'an, 15:19). God's saying: «all kinds of things in due proportion» refers to the importance of ecological and cosmic balance in quality and quantity, in weight and measure, in form and content.

The Qur'an expounds this in-depth balance reliant on delicate subtle measure in *Surat ar-Rahman* stating: «The Rahman (i.e. the All-Merciful Allah) has taught the Qur'an. He has created man. He has taught him (how) to express himself. The sun and the moon are (bound) by a (fixed) calculation. And the stars and the tree both prostrate (to Allah). He raised the sky

high and has placed the scale, so that you should not be wrongful in weighing. Observe the correct weight with fairness and do not make weighing deficient. As for the earth, He has placed it for creatures, in which there are fruits and date palms having sheaths as well as the grain having chaff and fragrant flowers» (the Qur'an, 55:1–12). Several meanings could be understood from these verses as follows:

1. Mercy should dominate the treatment with environment in the light and guidance of knowledge that complies with virtues and ethics, namely the knowledge of the Qur'an (i.e. the revelation) that never overlooks mind but guides it to the true path and saves it from prejudices, pride, and tyranny. The Qur'an controls mind by moral and ethical constraints that lead to happiness in this life and in the hereafter.
2. These essential components, the sun, the moon, the stars, all types of trees, fruits, plants, grains, and various crops, the heaven, the earth, and other creations have all been put in a greatly creative order and exact measure, so that non-maleficence should be the rule to control.
3. All people should cooperate to safeguard this ecosystem and should not perform any action that may result in imbalance or form ecological disruption or damage.
4. The obligation of establishing just measurement, namely giving everything the due right free from extremism or negligence.
5. These essential components that the Holy Qur'an mentions in this context and other similar contexts bring about the delicate balance and thus should not be impaired. They are all necessary and integral to one another. Human activities and pursuits to riches and acquisitions should not harm any element of these components; otherwise, mischievous corruption and harm will afflict the earth.

6. God had created the earth for all creations including human-kind of all races, animals of all species, all insects, and other types of organisms. It is not for any group, whatever may be, to seize the earth exceptionally and exploit its resources to the exclusions of others as happens today.

The Qur'an's Ecological Facts and Principles

The Holy Qur'an is the constitution of Muslim People. Upon mentioning the ecological elements, the Qur'an aims to exposit a number of facts and principles, primarily, the following ones:

1. The universe is whole and ready entirely free from any defect or blemish. It is put in a nicely creative order made ready to man in the best model of creativity, perfection, beauty, and delicateness. God (May He be exalted) says: «The Work of God, Who perfected all things, verily He is Well-Acquainted with what you do» (the Qur'an, 27:88). God (May He be exalted) also says: «Who made everything He has created good and He began the creation of man from clay» (the Qur'an, 32:7); and «Who has created the seven heavens one above another; you can see no fault in the creation of the Most Gracious. Then, look again! Can you see any rifts? Then, look again and yet again! Your sight will return to you in a state of humiliation and worn out. And indeed, We have adorned the nearest heaven with lamps (stars), and We have made such lamps (as) missiles to drive away the devils, and have prepared for them the torment of the blazing Fire» (the Qur'an, 67:3–5)
2. The earth (including all the surrounding atmospheres, gases, mountains, rocks, and minerals) is created in delicate precision where everything is situated in an exact order and fine measure of balance to keep the earth balanced quan-

titatively and qualitatively in terms of measure, substance, content, energy, gases, etc.

3. The earth had been given to man while being whole, useful, balanced, and free of all faults and imperfection, so God commands humankind to safeguard and treat with it in the best manner: «Do good. Truly, God loves the good-doers» (the Qur'an, 2:195). God (May He be exalted) also forbids mischief and corruption on the earth: «And do not do mischief on the earth after it has been set in order» (the Qur'an, 7:56).
4. Man is the only responsible being for any abuse and ecological problems that took place and are taking place against the environment. God (May He be exalted) says: «Evil (sins and mischief) has appeared on land and sea because of what the hands of men have earned (by oppression and harmful actions), that He i.e. God, may make them taste a part of that which they have done, in order that they may return i.e. beg His Pardon)» (the Qur'an, 31: 41). Since man is the only liable party, people should do the best to correct their mistakes or else they will rightfully be liable to punishment in this life and in the hereafter.
5. The obligation of reforming and settling the earth, as God (May He be exalted) says: «He brought you forth from the earth and entrusted you with developing it (i.e. to cultivate, build, and set justice)» (the Qur'an, 11:61). It indicates the ordainment of reforming and husbanding the earth through all possible means. Imam Al-Jassas states, "He commands you to befit it with whatever you may need. It lends supportive indication to the obligation of reforming the earth by cultivation, husbandry, and construction."⁷
6. Drawing links between the doctrines of faith and ethics and the environment. The Holy Qur'an highlights the environ-

ment as a sign of the Creative Omnipotent Creator. God (May He be exalted) says: «Surely, your Lord is Allah, Who created the heavens and the earth in six Days and then rose over the Throne (really in a manner that suits His Majesty), disposing the affair of all things. No intercessor (can plead with Him) except after His Leave. That is Allah, your Lord; so worship Him (Alone). Then, will you not remember?» (the Qur'an, 12:3). God also says: «Verily! In the creation of the heavens and the earth, and in the alternation of night and day, there are indeed signs for men of understanding» (the Qur'an, 3:190). The Qur'an also lauds the faithful reaction of a believer after reflection upon the creation: «Our Lord! You have not created (all) this without purpose, glory to You! Give us salvation from the torment of the Fire» (the Qur'an, 3: 191).

God also says: «Verily, in the creation of the heavens and the earth, and in the alternation of night and day, and the ships which sail through the sea with that which is of use to mankind, and the water (rain) which God sends down from the sky and makes the earth alive therewith after its death, and the moving (living) creatures of all kinds that He has scattered therein, and in the veering of winds and clouds which are held between the sky and the earth, are indeed proofs/signs for people of understanding» (the Qur'an, 2:164).

The Holy Qur'an mentions these ecological organisms to be signs and proofs for the existence of God, the Creator and the Omnipotent, Whose are all Attributes of Perfection. God (May He be exalted) says: «Then tell Me about the water that you drink! Is it you who cause it from the rain-clouds to come down, or are We the Causer of it to come down? If We willed, We verily could make it salt (and undrinkable): why then do you not give thanks (to God)? Then tell Me about the fire which

you kindle. Is it you who made the tree thereof to grow, or are We the Grower?» (the Qur'an, 56: 68–72).

The Qur'an also mentions these creations to set proofs for the upcoming hereafter end of the world and resurrection, as God (May He be exalted) says: «And you see the earth barren, but when We send down water (rain) on it, it is stirred (to life), and it swells and puts forth every lovely kind (of growth). That is because God: He is the Truth, and it is He Who gives life to the dead, and it is He Who is Able to do all things. And surely, the Hour is coming, there is no doubt about it; and certainly, God will resurrect those who are in the graves» (the Qur'an, 22:5–7).

Ethical and Doctrinal Sides

The ethical and doctrinal sides are reflected in three points:

First: The faithful belief in the Creator and Designer based on the sincere belief in the Oneness of God.

Second: Offering thanks to the Gracious and Creator of all these great ecological bounties scattered everywhere, even in solid and liquid atoms. This thankfulness is only achieved through integral matters: 1. The perfect worship devoted to God by heart, tongue, and organs. 2. The good use of these great bounties for the goals prescribed by God without over-consumption and avaricious practices or miserly behaviors.

Third: Man is only vicegerent and agent over this universe and is not the creator or the owner thereof. Thus, man is not free to act as he absolutely likes. God (May He be exalted) only, out of His Grace and favor on man, submitted the universe to humankind and entrusted them with useful actions that are beneficial to humans and other beings without any harmful consequences, the Prophet (may God's Peace and Blessings be

upon him) says: «Harm is forbidden to initiate or to reciprocate».⁸

1. Connecting environment with beauty and adornment, as God (May He be exalted) says: «And wherein is beauty for you» (the Qur'an, 16: 6) and also says: «We have adorned it for the beholders» (the Qur'an, 15: 16).
2. The ethical dimension is also emphasized in many verses indicating the trial of this life and thus all traces of pride, arrogance, violence, and hurt are all impermissible. Thankfulness and self-humbleness are also obligatory. High virtues and supreme morality should dominate man's treatment with all surroundings including humans, inanimate, and animals. God (May He be exalted) says: «Blessed is He in Whose Hand is the dominion; and He is Able to do all things. Who has created death and life, that He may test you which of you is best in deed. And He is the All-Mighty, the Oft-Forgiving» (the Qur'an, 67:1–2). The ethical aspect in ecological treatment has several manifestations precisely defined by the Holy Qur'an and the Honorable Sunnah in accuracy, improvement, reform, and protection from harm and corruption. Demonstrative points will later follow on these issues.
3. Islam regards environment as the Mother of Humanity, as God has created man from earth, water, and dust. Tens of verses mention that man is created from dust and then from mud. It is also our Final Mother; in the same manner, man should respect and prove benevolent to his mother avoiding any aspect of ingratitude; man should also refrain from harming the environment, which is also impermissible. God draws fine links between severing ties of relationship and mischief on the earth when saying: «And those who break the Covenant of God after its ratification, and sever

that which God has commanded to be joined (i.e. they sever the bond of kinship and are not good to their relatives), and work mischief in the earth, on them is the curse (i.e. they will be far away from God's Mercy), and for them is the unhappy (evil) home (i.e. Hell)» (the Qur'an, 13:25). God also says: «Would you then, if you were given the authority, do mischief in the earth, and sever your ties of kinship?» (the Qur'an, 47: 22).

The Qur'an also mentions the sequence of human creation from the extract of mud consisted of dust and water, and then from *nutfah*, that is, mixed drops of the male and female sexual discharge. God (May He be exalted) says: «And indeed We created man (Adam) out of an extract of clay (water and earth). Thereafter We made him (the offspring of Adam) as a *nutfah* in a safe lodging (womb of the woman). Then We made the *nutfah* into a clot (a piece of thick coagulated blood), then We made the clot into a little lump of flesh, then We made out of that little lump of flesh bones, then We clothed the bones with flesh, and then We brought it forth as another creation. So Blessed is God, the Best of creators. After that, surely, you will die. Then (again), surely, you will be resurrected on the Day of Resurrection» (the Qur'an, 23:12–16).

This plain sequence clearly connects these phases. Although the semen is produced by parents, the mud is one of the most important components of environment. The Holy Qur'an affirms this connection in several verses. For example, God (May He be exalted) says: «O mankind! If you are in doubt about the Resurrection, then verily We have created you (i.e. Adam) from dust, then from a *nutfah* (a drop), then from a clot then from a little lump of flesh – some formed and some unformed (as in the case of miscarriage) – that

We may make (it) clear to you (i.e. to show you Our Power and Ability to do what We will). And We cause whom We will to remain in the wombs for an appointed term, then We bring you out as infants, then (give you growth) that you may reach your age of full strength. And among you there is he who dies (young), and among you there is he who is brought back to the miserable old age, so that he knows nothing after having known. And you see the earth barren, but when We send down water (rain) on it, it is stirred (to life), and it swells and puts forth every lovely kind (of growth)» (the Qur'an, 22:5).

In this context, the Qur'an mentions the phases of human life and connects them to the life phases of plants and trees. This verse explicitly indicates the likeness, mutual sympathy, and cooperation of creation. For Islam, it is one body when any part is in pain and is left without treatment, the rest of the body feels the pain and suffers problems until, eventually, watchful pains and fever befall all and sundry unless they all cooperate for recovery.

Nothing on this earth is separable from man, and man is not separable from his environment; they are all on the same way and to the same destination; either happiness for all (man and environment) or destruction for all. Haply, the *bee'ah* (environment) is derived from *ba'a* (i.e. to return), for man returns to it from the beginning to the end. God calls the abuse of environment and cultivation "mischief on the earth". In His description of the mischief-makers, God (May He be exalted) says: «And when he turns away, his effort in the land is to make mischief therein and to destroy the crops and the cattle, and God likes not mischief» (the Qur'an, 2:205).

In deterrence of this crime, God has enacted two painful

punishments in this life and in the hereafter. As to this life, God (May He be exalted) says: «The recompense of those who wage war against God and His Messenger and do mischief in the land is only that they shall be killed or crucified or their hands and their feet be cut off from opposite sides, or be exiled from the land. That is their disgrace in this world, and a great torment is theirs in the Hereafter» (the Qur'an, 5:33).

As for the hereafter, theirs will be the curse, loss, evil abode, and hellfire as God (May He be exalted) says: «Would you then, if you were given the authority, do mischief in the land, and sever your ties of kinship? Such are they whom God has cursed, so that He has made them deaf and blinded their sight» (the Qur'an, 47:22–23). God also says: «Those who break God's Covenant after ratifying it, and sever what God has ordered to be joined and do mischief on earth, it is they who are the losers» (the Qur'an, 2:27). God also says: «And those who break the Covenant of God after its ratification, and sever that which God has commanded to be joined (i.e. they sever the bond of kinship and are not good to their relatives), and work mischief on the earth, on them is the curse (they will be far away from God's Mercy), and for them is the unhappy (evil) home (Hell)» (the Qur'an, 13:25).

The Prophet's Sunnah and the Environment

It is well known that the main role of the Purified Sunnah is to explain the Holy Qur'an. With respect to the issue in question, the Sunnah provides reliable illustration on the abovementioned principles about environment and even adds some salient and fine aspects of easiness, of which we mention the following points:

1. The Sunnah regards procedures necessary to protect the environment from harm and corruption as parts of the Islamic faith. Al-Bukhari and the Collectors of Sunan reported, through their continuous chains of transmission, that the Prophet (May God's Peace and Blessings be upon him) said: «Imaan (i.e. firm faith) has over sixty branches».⁹ According to the narration of Imam Muslim and Collectors of Sunan: «Faith has over seventy branches, the most excellent of which is the declaration that there is no God but Allah, and the humblest of which is the removal of harmful objects from roads. And yet, modesty is a branch of faith».¹⁰ In his commentary on this report, Ibn Hajar summarizes what the earlier scholars mentioned stating, "These branches of faith are derived from the deeds of heart, the deeds of tongue, and the deeds of body. He mentioned the deeds of heart such as mercy, modesty, and other similar virtues. He then mentioned the deeds of body stating that they have thirty eight deeds; some belong to the body including ritual purity, bringing about reconciliation among people, cooperation for good deeds, honest fulfillment of trust, good conduct and affability with one's person and others, refraining from extravagance and prodigal behaviors (the Qur'an and Sunnah discourage them strictly), deterring people from wrongful acts, and removal of harmful matters (from roads)».¹¹

Another narration specifies the great reward expected for removing the harmful matters from people's ways; the Prophet (May God's Peace and Blessings be upon him) said: «the Removal of harmful objects from the road is an act of charity i.e. equal in reward to charity».¹² Furthermore, the Prophet (May God's Peace and Blessings be upon him) evinced how this act leads to God's forgiveness saying:

«While a person was going along the road, he came upon a thorny branch. He pushed it to a side. God appreciated his action and, hence, forgave him». ¹³ According to another narration: «A harmful thorny branch was on the road hurting people. A man removed it and then was admitted into Paradise (for it)». ¹⁴

2. Encouraging environmental *Ihsaan*, that is, perfect treatment: *Ihsaan* is to do the best in the best manner. It is the peak of ranks of Islamic Faith, as made plain in the narration of Gabriel (peace be upon him) when he asked a question about *Ihsaan*, after questions about Islam and *Imaan*, «Tell me what *Ihsaan* is?» Gabriel asked. The Prophet (May God's Peace and Blessings be upon him) replied: It is to worship God sincerely as if you see Him, but if you see Him not, He surely sees you. You told the truth, Gabriel said. ¹⁵

According to another authentic narration, “*Ihsaan* is to fear God as if you see Him, and yet if you see Him not, He surely sees you.” You told the truth, Gabriel said. ¹⁶ There is also an authentic narration reported by Ibn Mas‘ud stating: «*Ihsaan* is to work sincerely for God as if you see Him, and yet, if you see Him not He surely sees you». ¹⁷ This narration explicitly expounds the ordainment of good treatment with man, animals, and environment. It is impermissible to hurt any being that God has created or to commit mischief in the earth. Further discussion is to follow on this ethical side. The Prophet (may God's Peace and Blessings be upon him) commanded good and nice conduct with all things even when slaughtering an animal, he (may God's Peace and Blessings be upon him) said, «God has prescribed *Ihsaan* (good treatment/perfection) in all things. So if you kill, then kill well; and if you slaughter, then slaughter well. Let each one of you sharpen his blade and let him spare suffering to the animal

he slaughters».¹⁸

3. Cultivating the environment is an act of ongoing charity: Many narrations are there to prove that reclaiming lands through husbandry and cultivation of trees, crops, and plants are lasting acts of charity whose good effects and rewards continue even after death. The Two Sheikhs (Al-Bukhari and Muslim) narrated on the authority of Anas that the Prophet (May God's Peace and Blessings be upon him) said, «No Muslim cultivates a plant or sows a crop, then a person, or a bird, or an animal eats from it, except that it will be charity for him».¹⁹

The Prophet's Companions thus evinced due keenness to do cultivation and husbandry. It is narrated that a man passed by the Honorable Companion Abu ad-Darda' (may God be pleased with him) while planting walnuts. Held in wonder, the man said, do you cultivate this kind of trees while you are an aged man? It takes several years to give fruit! In reply, Abu ad-Darda' said, what is wrong with that, it is for me the reward and for others the fruit.²⁰ Islam also presents new forms of legislation leading to a significant change in cultivating new lands when Islam opened the way for reviving the barren land under the rule: «He who revives a barren land holds it in usufruct».²¹

The Prophet (May God's Peace and Blessings be upon him) called the barren land devoid of cultivation "mawat" (i.e. land of death or dead land), to pay attention to the importance of the revival processes as if it was a real process of giving life.

4. A true Muslim never fails to serve environment, no matter how busy s/he may be, as the authentic narration reported by Ahmad in his *Musnad*, and Al-Bukhari in *Al-Adab Al-Mufrad*, on the authority of Anas that the Prophet said, «If the

Final Hour comes while you have a palm-cutting in your hands and it is possible to plant it, you should do so».²²

5. Banning all deviant behaviors against environment. Many Prophetic reports support this ruling. For example, the Prophet (may God's Peace and Blessings be upon him) said:
 - a. «You should not urinate in stagnant water and then take bath in it».²³
 - b. «Whoever troubles Muslims in their roads is worthy of their invocation of curse against him».²⁴
 - c. When Abu Barzah said, teach me a useful thing to avail of it, the prophet said, «Remove troublesome things from the roads of Muslims».²⁵
 - d. When the Prophet missed a woman who used to clean the mosque, he asked about her. When he knew that she died, he blamed the Companions, who thought she was not that important to tell the Prophet of her funeral prayers, and said, «You should have informed me.... Show me her grave. He then went to her grave and offered funeral prayers for her».²⁶
 - e. «The deeds of my people, good and bad, were presented before me, and I found the removal of harmful objects from the road among their good deeds».²⁷
6. Banning abuse and overconsumption of ecological resources: The Qur'an strictly forbids unnecessary overconsumption even of lawful matters, as God (May He be exalted) says, «Eat and drink, but be not prodigal. Surely, He loves not the prodigals» (the Qur'an, 7:31). Describing the true servants of the All-Merciful, God (May He be exalted) says: «And those who, when they spend, are neither prodigal nor niggardly, but hold a medium (way) between those (extremes)» (the Qur'an, 25:67). As to overconsumption of unlawful matters, the Qur'an explicitly and

strictly condemns it strongly, as God (May He be exalted) says: «And give to the kindred his due and to the poor and to the wayfarer. But spend not wastefully (your wealth) in the manner of a spendthrift. Verily, spendthrifts are brothers of the devils and the Devil is ever ungrateful to his Lord» (the Qur'an, 17:26–27). The Purified Sunnah also provides some explanatory points, since it mentioned that overconsumption is unlawful even of seawater. The Prophet (May God's Peace and Blessings be upon him) said to Sa'd on his ablution, «What is this extravagant use (of water)?» In reply, Sa'd said, «Can there be any extravagance in ablution». The Prophet said, «Yes, even if you are on the bank of a flowing river».²⁸

7. Purposeful abuse of environment or road incurs curse. We have already cited textual evidence of the Holy Qur'an on the prohibition of mischief-making and destruction of crops and cattle. The Prophet's Sunnah affirms this rule and adds more enlightenment, as the Prophet (May God's Peace and Blessings be upon him) said, «Whoever troubles Muslims in their roads is worthy of their invocation of curse against him».²⁹ He (may God's Peace and Blessings be upon him) also said, «Beware of the two acts that provoke cursing?» The Companions said: «What are those acts that provoke cursing?» He said, «Relieving on the thoroughfares or under the shades where people take shelter and rest». These Prophetic traditions as well as the Qur'anic verses are clear on forewarning the bad consequence of ecological abuse and destruction, because the Prophet (May God's Peace and Blessings be upon him) only uses the punishment of cursing in grave sins and serious crimes.
8. The Prophet and his rightly guided caliphs left several statements encouraging the protection of environment even

in case of war. When he sent the Companions in *jihad*, the Prophet used to command them to adhere to justice and devote all their actions for the sake of God entirely devoid of personal desires. He (may God's Peace and Blessings be upon him) used to say, «Go in the Name of Allah, and in the cause of Allah...³⁰backfill not water springs or cut down trees unless it is inevitably necessary». ³¹In his farewell address to Yazid, the army leader, and soldiers, when they were setting out to the Levant, Abu Bakr, the caliph, issued a statement expounding these necessary regulations, which came to be known as the Ten Commandments, as follows: «I order you to stick firmly to the following ten commandments: Do not kill women or children or an aged, infirm person. Do not cut down fruit-bearing trees. Do not destroy an inhabited place. Do not slaughter sheep or camels except for food. Do not burn bees and do not scatter them. Do not steal from the booty and do not be cowardly». ³²

9. Prophet's Hadiths encouraging cultivation, protection of fruits, and contracts of sharecropping and watering-based sharecropping are too numerous to be counted in this brief discussion. It is enough to know that Authentic Collections of Hadith and Books of Sunnan and Musannafat (Prophetic traditions and categorizations) have independent chapters with several parts and sections on these issues. ³³

Objectives of Environment Creation

This subtitle is intended to show the divine goals behind the creation of environment that appear through the elaborate reflection upon the Qur'an and Sunnah. Careful study of these two sources shows that there are wisdoms and ends behind the creation of the cosmos (environment), for there is nothing

created in vain: «And We created not the heaven and the earth and all that is between them in vain. That is the opinion of those who disbelieve. And woe unto those who disbelieve, from the Fire!» (the Qur'an, 38:26). The Holy Qur'an also touches on the universe in many verses, even more than legal verses. These verses show the secrets behind the creation of the universe as follows:

1. It is an indication and proof for the existence of God, His Omniscience, Absolute Will, Omnipotence, and other Divine Attributes authentically reported in the Book and the Sunnah.
2. Setting arguments for theism, as creation is a means guiding to the Creator. The Creator is neither a creator nor worthy of worship without the indicative creation. As a result, most of the Qur'anic evidences speak of the aspects of theism to reach the faithful belief in the Creator.
3. Perfect worship and devotion is fully the right of God because of the Grace of creation.
4. The creation of the universe is made for man's utility, sustenance, and happiness to return to God in deep thanks and gratitude (the Qur'an, 2:22), to benefit people (the Qur'an, 2:29), and to eat lawful good things (the Qur'an, 2:168,172,173).
5. Another purpose is to test man: «Who has created death and life, that He may test you which of you is best in deed» (the Qur'an, 67:1), and to qualify the righteous people for Paradise through good deeds and consign the wrongdoers to Hellfire because of their evil acts.
6. Offering thanks to the Bountiful God for this grace through protecting and looking after the universe as well as fending off mischievous and deviant behaviors and restraining abuse of environment in unjust, evil, and sinful practices.

7. Reforming and building the universe, which God subdued it for man to reform and build it and worship God in the best manners as should be. It is worth mentioning that each type of creation bears specific purposes; God's purposes behind the creation of this world are totally different from those of creating the hereafter and so on. Elaborate examination of this point goes beyond the scope of this paper. It is undoubtedly true that God created the creation for certain wisdoms and purposes that we may or may not know. However, we firmly believe that this universe is not created in vain, but for true wisdoms and purposes. We reiterate what the Holy Qur'an tells after mentioning the creation of heavens and earth: «Our Lord! You have not created (all) this without purpose» (the Qur'an, 3:191).

Sharia Objectives (Objectives of Islam) and the Environment

The Muslim jurists specified the necessary objectives or the essential, complementary, and qualitative interests. This tri-partition-based categorization is intellectually precise and absolutely accepts no additional category. Difference only appears when considering the types of essential objectives or the essential, complementary, and qualitative interests. The jurists have mentioned five or six necessities and provided several definitions³⁴ thereto putting two standards for them:

First: They must be indispensably essential for human life; shall they all or one of them fails, human life will face a state of chaos, tumult, and anarchy.

Second: These six necessities are protected by enactment of legal prescribed penalties or retaliation for violating them in

addition to a group of basic legislations for the same purpose. For protecting and setting the religion, for example, the Law-giver imposed *jihad* and to keep it invulnerably respected, He enacted the penalty for apostasy. Similarly, for protecting and safeguarding human life, God enacted the law of retaliation. Any kind of physical violation or abuse is also banned and condemned. In addition, unlawful matters are tolerated in cases of compelling necessities to keep human life. To keep human mind, freedom and thoughtful education are highly and positively encouraged, whereas violation and intoxicants are penalized. Similarly, to safeguard wealth, theft is penalized and all forms of violations and unlawful seizure are declared forbidden. In addition, liabilities and compensations are guaranteed for harmful or neglectful practices. To keep human race, marriage is enacted and adultery is criminalized and penalized. God (May He be exalted) also laid the necessary legislation to protect one's honor penalizing false accusations and similar defamatory behaviors.

It is upon this criterion combining positive enactments and negative measures, the balanced legislative system is built. There are other two matters that – I think – are not less important than the other six necessities, particularly in economics, and they also fulfill the two mentioned elements for standardizing what is necessary. They are as follows:

First: Preserving the national security, which is equally applicable to the political, social, economic, and ecological security in addition to preventing corrupt practices and harmful actions against the community, since God has enacted the most strict and painful punishment for those who violate the communal security, namely the punishment of *hirabah*, that is, public terrorism, robbery, and rape.³⁵ God (May He be exalted) says: «The recompense of those who wage war against

God and His Messenger and do mischief in the land is only that they shall be killed or crucified or their hands and their feet be cut off from opposite sides, or be exiled from the land. That is their disgrace in this world, and a great torment is theirs in the Hereafter» (the Qur'an, 5:33)

Evidently, the verse proves the duty of fighting against those who endanger the social security and pursue to spread mischief on the earth, whether their aggressive actions targeted man, animal, or environment. All forms of mischief are absolutely condemned. God even exclusively condemned hostility against the earth and the aggression against crops and cattle, God (May He be exalted) says, «And when he turns away, his effort in the land is to make mischief therein and to destroy the crops and the cattle, and God likes not mischief» (the Qur'an, 2:205).

Indeed, the Qur'anic verses alarming the dangers of unfriendly behaviors against the earth and the evil consequences expected are too numerous to record in this brief treatment. It is enough to cite God's statement: «Would you then, if you were given the authority, do mischief in the land, and sever your ties of kinship? Such are they whom God has cursed, so that He has made them deaf and blinded their sight» (the Qur'an, 47:22–23). Furthermore, God banned the mischief-makers from eternal happiness in Paradise, God (May He be exalted) says: «That home of the Hereafter (i.e. Paradise), We shall assign to those who rebel not against the truth with pride and oppression in the land nor do mischief by committing crimes. And the good end is for the righteous persons» (the Qur'an, 28:83). Safeguarding the social security and preventing mischief in the earth are necessarily one of the basic necessities in the light of the theoretical standards laid down by the Muslim jurists.

Second: Safeguarding the security of just governments,

as God commands to preserve it. For this purpose, giving the pledge of allegiance is made obligatory and rebellion against Muslim rulers is declared forbidden. Furthermore, a prescribed penalty is enacted to deter wars against society. National security is thus a duty and any aggression against it is impermissible.

Maqasid (Objectives)–Environment Relationship

To define this relationship, the following two aspects are necessary to be considered:

First: The accomplishment of the five/six/eight necessities is only possible to achieve through the environment; the environment per se is, at least, the essential factor for man's life and survival, for protecting his soul and mind, and safeguarding his family, children, and honor. The environment then becomes, at a higher phase, an essential matter and, at later phases, necessary for qualitative human life. Away from environment, man cannot live or even exist. God creates man from earth, water, and dust (i.e. environment) and then all things come from the environment; man inhales oxygen, eats foods, wears clothes, and enjoys graces from it. If man's life is conditional upon environment, the religion is conditional upon man's existence.

The Foremost Objective

The environment is thus an essential prerequisite for the preservation of all collective objectives. Preserving and developing it is then the foremost objective and the utmost end. Notwithstanding, there is nothing wrong with the trend that sees the objectives only five or six and associates them with environment as a necessary factor for achieving them all. Meanwhile, no conflict is there with the viewpoint adopted by some contemporaries, who view that environment is an independent

necessity and yet, they provide no theoretical frameworks or standards for it.

In an attempt to adopt a reconciling viewpoint, I based my view on the abovementioned standards of all objectives and the conclusion evidenced that the environment is an essential legal value that the Sharia safeguards in both negative and positive measures, namely protecting and reforming the environment as well as warding off aggressive actions against it through the national security objective, which is also contrary to mischief on the earth as the verse cited above declares. The environment is one of the main causes of happy human life in soul and body, in heart and mind, in wealth and security, as previously stated. In summary, all the objectives of Sharia are associated with the environment.

Ethical Governing Principles in Dealing with the Environment

After examining the terms of ethics, their partitions and principles, it is quite possible to say that there are three governing ethical principles in treatment with environment: Prevention of Mischief, Achievement of Reform, and Guaranty of Quality. Although, achievement of reform necessarily entails the prevention of mischief, preventing mischief is proved a central point through the Qur'anic emphasis, which gives this term a special concern and it is certainly worth it. Indeed, the main duty of man is to prevent mischief in the environment, namely the universe, because God naturally enriches the environment with all necessary elements to keep it coherent and balanced, provided humans keep nonmaleficence.

Mischief is also extended to all acts leading to any form of immoderation and imbalance and thus significantly bears a

special meaning worth particular mention. Meanwhile, God joined the two principles together in the same context using the conjunctive *wa* (i.e. and), which indicates difference in meaning, when He (May He be exalted) described the spendthrift saying: «Obey not the command of the spendthrift, who make mischief in the land and reform not» (the Qur'an, 26:152). God also says, «And there were in the city nine men (from the sons of their chiefs), who made mischief in the land and would not reform» (the Qur'an, 27:48).

The two verses clearly prove that mischief or mischief-making is more general than refraining from reform and reform-making. Nonreform does not necessarily mean mischief in the strict sense of the word as shown above. Thus, we see them as two independent terms in form and content. In supportive evidence, scholars of the principal theories of Islamic jurisprudence and jurists considered the achievement of interests and the prevention of harm as two independent principles; however, they cannot do without each other. The two principles, prevention of mischief and achievement of reform, express the previous principles, that is, warding off harm and obtainment of interest. The choice of mischief and reform are due to the Qur'anic focus on them both in this context.

First principle: Prevention of Ecological *Fasaad* (Mischief)
Fasaad (i.e. mischief), literally conveys several meanings including rottenness, damage, spoiling, disruption, and confusion. It also signifies all actions that result in disruption or direct or indirect harm, physical or spiritual to an individual, community, or society.³⁶ Technically, it is the disruption, harm, damage, or imbalance. For Al-Isfahani, it signifies any form of immoderate behavior,³⁷ a definition I see precise and concise.
***Fasaad* (mischief) in the Terminology of the Qur'an and**

Sunnah: The *fasaad* (Mischief) and its derivatives have been mentioned 50 times in the Qur'an, whereas the term *salaah* (i.e. reform) and its derivatives have been mentioned more than three times.³⁸ The two terms have also several mentions in the Sunnah in more explanatory manners.³⁹ Discouraging declarations on the prohibition of mischief ban all forms of harmful acts against individuals, communities, and societies in all financial, political, and social areas, in administrative or nonadministrative circles, whether direct or indirect. These declarations are equally applied to the environment giving a complete, integral, vast, and flexible image of all forms of ecological impairment at the hand of individuals, society, or state in financial or political sides or otherwise. They also prove that the source of mischief and disorder is man and human practices. Of these verses, we mention the following:

1. God (May He be exalted) says: «Evil (sins and mischief) has appeared on land and sea because of what the hands of men have earned (by oppression and harmful actions), that He i.e. God, may make them taste a part of that which they have done, in order that they may return i.e. beg His Pardon)» (the Qur'an, 31: 41). Clearly, the verse states that the rise of mischief on land and sea stems from harmful human actions and that God will soon punish those mischief-makers and cause them to taste the results of their evildoing.
2. God (May He be exalted) also decisively forbids all forms of mischief-making on earth saying: «And do not do mischief on the earth after it has been set in order» (the Qur'an, 7:56). The Qur'an emphasizes this meaning in several other verses, such as God's saying: «Seek not mischief in the land. Verily, God likes not the *mufsidûn* (those who commit great crimes and sins, oppressors, tyrants, mischief-makers, corrupts)» (the Qur'an, 28:77). The Qur'an is also clear on the

point that God has prepared the earth for human life and has endowed it with all good matters and necessary sustenance, so do not spoil it or cause it any damage that may endanger your life in this world and your salvation in the hereafter.

3. God (May He be exalted) says: «And of mankind there is he whose speech may please you in this worldly life, and he calls God to witness as to that which is in his heart, yet he is the most quarrelsome of the opponents. And when he turns away, his effort in the land is to make mischief therein and to destroy the crops and the cattle, and God likes not mischief» (the Qur'an, 2:204–205). The verses indicate that mischief-making, killing people, and destruction of ecological life are common vices among the oppressors, the arrogant, the tyrants, and the hypocrites. In contrast to these vices, the traits of believers are to reform and construct on the earth, and to cultivate and husband the land. The verse and other verses on the forbiddance and prevention from mischief-making subliminally refer that prevention of mischief-making can only be obtained through sound creed and heavenly guided ethics. God associates disobedience with mischief and cutting odd ties of kinship when He (May He be exalted) says: «Would you then, if you were given the authority, do mischief in the land, and sever your ties of kinship? Such are they whom God has cursed, so that He has made them deaf and blinded their sight» (the Qur'an, 47:22–23).
4. God (May He be exalted) says: «The recompense of those who wage war against God and His Messenger and do mischief in the land is only that they shall be killed or crucified or their hands and their feet be cut off from opposite sides, or be exiled from the land. That is their disgrace in this world,

and a great torment is theirs in the Hereafter» (the Qur'an, 5:33). The verse clearly proves that mischief-making is strictly and painfully penalized and its punishment may be execution or crucifixion. For some jurists, the concept of mischief-making is inclusive and equally applicable to all forms of mischief.

It is worth mentioning that the Qur'anic verses used the term *fasaad* (i.e. mischief), on the earth in different formulas, for example, «Do not *tufsidu* (i.e. do not do mischief) on the earth after it has been set in order» (the Qur'an, 7:85). In the context of describing the losers, God (May He be exalted) says: «(Those who) *yufsidun* (i.e. do mischief) on earth, it is they who are the losers» (the Qur'an, 2: 27). Again, in describing the wrongful tyrants, God (May He be exalted) says: «And when he turns away, his effort in the land is to *yufsid* (i.e. make mischief) therein and to destroy the crops and the cattle, and God likes not mischief» (the Qur'an, 2:205). Verses on this issue are many and then indicative of the importance the Qur'anic verses places on the preservation of earth, keeping its balance and equilibrium, and the discouragement from all harmful and pernicious interventions. Furthermore, Muslim scholars hold man is responsible for all forms of destruction, disasters, and problems on the earth even those afflicting animals and environment, since man's aggressive and wrongful behaviors are the cause of their affliction. Civilizations, urbanism, construction, trees, and gardens come to an end because of that. God (May He be exalted) says: «And when We would destroy a township, We send commandment to its folk who live at ease. And yet, they commit abomination therein, so the Word (of doom) has effect for it and we annihilate it with complete annihilation» (the Qur'an, 17:16).

Fasaad is not only restricted to disruption, damage, or

harmful acts against environment, but also equally applies to human tyranny, oppression, and sin that incur total cosmic destruction. It also applies to destruction of buildings and civilization. Briefly, man commits mischief on the earth twice: directly through harmful practices against environment and indirectly through grave sins and crimes such as disbelief, murder, oppression, aggression, adultery, indecency, alcohol drinking, drug addiction, and similar crimes and sins, which violate God's obligations and Human ecological rights. Due Punishment, when comes, destroys everything including the environment.

The Honorable Prophet's Companions understood this fact as Ibn Abi ad-Dunya narrated that a man said to Abu Hurayrah: a wrongdoer only wrongs himself? In reply, Abu Hurayrah said, you told a lie, by Him in whose Hand is the life of Abu Hurayrah, the bustard (sadly) dies in their nests because of the wrongdoers' aggressions.⁴⁰ Qatadah is quoted to have said, "When drought takes place, all organisms of land pray against the sinful children of Adam saying, this is the consequence of human sinful actions! May God curse be on the sinful people!"⁴¹ Al-Bukhari and Muslim among others narrated that the Prophet (May God's Peace and Blessings be upon him) said, "The people will not perish until their crimes become abundant and there remains no excuse for them."

Broad concept

According to the Qur'an and Sunnah, the concept of ecological and universal *fasaad* (mischief) is so comprehensive and wider than the mere concept of mischief, damage, or harm in the positive thought. For the Qur'an and Sunnah, *fasaad* (mischief) includes both direct and indirect harmful actions following sins and grave sins such as the gravest sin of disbelief and polythe-

ism, as well as other capital sins and blind pursuit of personal whims and lusts. The Qur'an is emphatic on the firm connection between sins and crimes and ecological destruction, God (May He be exalted) says: «And if the people of the townships had believed and kept from evil, surely We should have opened for them blessings from the sky and from the earth. But (unto every messenger) they belie, and so We seized them on account of what they used to earn» (the Qur'an, 7:96).

The Holy Qur'an also relates tens of accounts about the tyrants and totalitarians and how God destroys them because of their destroying of civilization and human construction. God (May He be exalted) says: «Do you not consider how your Lord dealt with (the tribe of) 'Aad, with many-columned Iram, the like of which was not created in the lands. And with (the tribe of) Thamud, who clove the rocks in the valley; and with Pharaoh, firm of might, who (all) were rebellious (to God) in these lands, and multiplied iniquity therein? Therefore Your Lord poured on them the disaster of His punishment. Surely, Your Lord is ever watchful» (the Qur'an, 89: 6:13).

Practically speaking, a human being, who neither believes in God nor fears Him and has no belief in the Last Day, will definitely transgress when having the power: «Nay! Verily, man does transgress (in disbelief and evil deed), because he considers himself self-sufficient» (the Qur'an, 96:6-7). He then suppresses and wrongs people and may even claim deity as Pharaoh verbally said or actually as many tyrants did. We have seen how modern tyrants humiliated people and countries until God humiliated them, because they followed their deviated desires and forsake the right ways of guidance. God (May He be exalted) says: «And if the truth had been in accordance with their desires, verily, the heavens and the earth, and whosoever

is therein would have been corrupted!» (the Qur'an, 23:71).

The cause underlying this firm association between sins and *fasaad* and between the Qur'anic connecting sins and crimes such as disbelief, inequity, killing, and tyranny with *fasaad* is that God only bans what is harmful, evil, and pernicious wholly or mostly. Describing the Honorable Prophet, God (May He be exalted) says: «Those who follow the messenger, the Prophet who can neither read nor write, whom they will find described in the Torah and the Gospel (which are) with them. He will enjoin on them that which is right and forbid them that which is wrong. He will make lawful for them all good things and prohibit for them only the foul; and he will relieve them of their burden and the fetters that they used to wear. Then those who believe in him, and honor him, and help him, and follow the light which is sent down with him: they are the successful» (the Qur'an, 7:157). The overwhelming majority of all things, which are wholly or mostly good and beneficial, are lawful, and exceptional matters, which are unlawful, are only those who are foul, harmful, and corrupt. The Qur'an thus chooses the term *ma'ruf* to express the good deeds and the term *munkar* to express the bad ones in line with human nature and creation in many verses, God (May He be exalted) says: «Let there arise out of you a group of people inviting to all that is good, enjoining that which is *ma'ruf* (i.e. Islamic Monotheism and all that Islam orders one to do) and forbidding that which is *munkar* (polytheism and disbelief and all that Islam has forbidden). And it is they who are the successful» (the Qur'an, 3:104).

Speaking of the superiority of Muslim people, the Qur'an makes it conditional upon these good virtues and qualities and lets it not be per se superiority. God (May He be exalted) says: «You (true believers in Islam) are the best of peoples ever raised up for mankind», namely raised for the good and welfare of

humankind to accomplish their worldly and religious benefits as well as keep their brilliant future in the hereafter.

Describing those people, God (May He be exalted) says: «You enjoin that which is *ma'ruf* and forbid that which is *munkar*, and you believe in God» (the Qur'an, 3:110). God makes it plain that those reformists, who forbid that which is corrupt and harmful, are also causes to save people from destruction: «If only there had been among the generations before you men possessing a remnant (of good sense) to warn (their people) from mischief in the earth, as did a few of those whom We saved from them! The wrong-doers followed that by which they were made sapless, and were guilty. In truth, Your Lord destroyed not the townships wrongfully while their people were doing right» (the Qur'an, 11:116–117).

This verse unveils one of God's laws in treatment with peoples, namely when people commit mischief and inequity and no one among them stand to resist these evils, they will ultimately go to destruction. Only the people whose reformists pursue to resist tyrants and wrongdoers will escape destruction. Those are the reformists, who endeavor to cleanse the mischief, corruption, and wrongs of earth, form the safety valve for salvation.

Second principle: *Islaah* (reform)

Islaah (i.e. reform) is derived from *aslaha*, which comes from the Arabic tri-root verb *salaha*, which signifies that which is good, useful, and suitable. It is said, *saluha Al-Insaan* (i.e. a human became good devoid of corruption), *aslaha amalahu wa amrahu* (i.e. he repaired his work and state of affairs to become useful), and *aslahah ash-shay'* (i.e. to repair and rehabilitate a thing). This root is also used to express reconciliation among people who have a quarrel by removing causes of enmity and

disagreement. A *salih* is a straightforward and upright person, who fulfills his duty well.⁴² The term of *salaha* and its relevant derivatives have been mentioned hundreds of times throughout the Holy Qur'an quite conveying meanings similar to its literal ones, but in wider scope that include the reform of earth and soul, family and people relationships, and others.⁴³

Islaah (i.e. reform) is defined as the process of removing all that which could corrupt the environment and the doing of all that which proves good and useful to it and repairing what is corrupt to become good and useful. *Islaah* (reform) then includes the physical side directly associated with reforming the environment as well as the spiritual side of human reform through firm belief in God, the Last Day, the Books, Prophets, Angels, Predestination, and abidance by doing good deeds and following the right path of guidance. Achieving this comprehensive reform is a protection from destruction, corruption, and total ecological ruin. God says: «In truth, Your Lord destroyed not the townships wrongfully while their people were doing right» (the Qur'an, 11:117).

The *islaah* won't come true perfectly unless the sacrosanct laws revealed from the Creator of the macrocosm and environment are put effectively in force: «Should He not know what He created? And He is the Subtle, the Aware» (the Qur'an, 67:14). *Islaah* is the symbol of Prophets and Messengers. God (May He be exalted) places utmost importance on the inclusive *islaah* (perfect reform) as expressed in the statement of Prophet Shu'ayab, who epitomizes his mission in *islaah* saying: «I only desire *islaah* (i.e. reform) to the best of my power. And my guidance cannot come except from God, in Him I trust and unto Him I repent» (the Qur'an, 11:88).

God also makes full success conditional upon *islaah* (i.e. doing good things): «Whosoever becomes pious and do what

is good, on them shall be no fear, nor shall they grieve» (the Qur'an, 7:35). Adhering to *islaah* is the cause of escaping destruction: «In truth, Your Lord destroyed not the townships wrongfully while their people were doing right» (the Qur'an, 11: 117). *Islaah* is also a prerequisite for accepting one's repentance: «Except those who repent and do *islaah* (i.e. righteous deeds), and openly declare (the truth which they concealed). These, I will accept their repentance. And I am the One Who accepts repentance, the Most Merciful» (the Qur'an, 2:160).

It is also a reason for forgiveness and mercy, God (May He be exalted) says: «And if you do good, and keep from evil, then God is Ever Forgiving, Most Merciful» (the Qur'an, 4:129). The reward of reformists is eternal preserved in life and hereafter: «We squander not the wages of reformers» (the Qur'an, 7:170). That is because they deserve the Divine Friendship and Providence, as God (May He be exalted) says: «And He (God) befriends the *saliheen* (i.e. the righteous)» (the Qur'an, 7:196). It is enough to realize the importance of *salah* (i.e. doing good) and *islaah* (i.e. reform), to know that it along with *imaan* (i.e. faithful belief) are two constant and joint conditions, which are always mentioned together, God (May He be exalted) says: «By the declining day, surely, man is at a state of loss save those who believe and do good works» (the Qur'an, 103:1–3). In summary, doing what is good and keeping reform are the required purposes of all servants in creed, word, and deed.

Reflecting upon all heavenly revealed messages, particularly the Last Message evinced that God sent down these messages to the Prophets to make man good and righteous. When man is good, he can undertake the duties of his main message, which is to administrate and reform the earth, as God addressed His angels: «I am about to place a viceroy in the earth» (the Qur'an, 2:30). God also says: «He brought you forth from the earth and

entrusted you with developing it» (the Qur'an, 11:61).

Reforming the universe (environment), which is the essence of man's task on earth, is conditional upon self-reformation. The angels then asked their Lord: «they said: Will You place therein one who will do harm therein and will shed blood» (the Qur'an, 2:30). They knew well that whoever commits mischief and corruption is not qualified for the position of representation. However, God made it plain to them that the new being (Adam) is qualified to fulfill the task and perform the mission, so they prostrated themselves to him in obedience to God's command.

God also explains that the nation with a majority of righteous reformers won't perish, as previously stated. It is stated that only the reforming nation is worthy of inheriting the earth, as God (May He be exalted) says: «And verily we have written in the Scripture, after the Reminder: My righteous servants will inherit the earth: there is certainly a plain statement for people who are devout» (the Qur'an, 21:105–106). The verse proves that inheriting and dominating the earth is conditional upon three conditions:

First: the true devotion of all good deeds to God, which makes man righteous and self-reformed.

Second: Self-reformation in terms of creed, word, and deed, which qualifies man to reform others and thus becomes qualified for bearing the duty of viceroy ship on earth and religion.

Third: Showing mercy to God's servants and all creations.

Third principle: *Ihsaan* (doing good deeds)

Ihsaan is literally a verbal noun derived from *ahsana* (i.e. to do what is good). God says, «If you do good, you do good for your own selves» (the Qur'an, 17:7). To do what is *ahsan*

is to do a thing perfectly in the best manner, God (May He be exalted) says: «He fashioned you and perfected your shapes» (the Qur'an, 40:64), namely He fashioned them perfectly. The root of *ihsaan* conveys the meanings of beauty and decoration. It is said, *hassana ash-shay* (i.e. to beautify and decorate it) and *tahassana ash-shay* (i.e. to be decorated), whereas *'istahsanahu* is to see it good and beautiful. *Husn* also means beauty and all that which is delightful and desired. Finally, what is *Al-ahsan* is the best.⁴⁴

The root *hasana* and its relevant derivatives have about 200 mentions, of which *hasuna* (i.e. to excel and improve) occurs only once: «And *hasuna* (how excellent) these companions are!» (the Qur'an, 4:69). This verb occurs 12 times in the forms of simple past tense, the present tense, and the imperative mood, as God (May He be exalted) says: «He is my master, he *ahsana* i.e. perfected, my living state» (the Qur'an, 12:23). It also occurs 36 times in the superlative degree of comparison *ahsana*. The derivative *musin* occurs 40 times in singular and plural forms. The term *ihsaan* itself has 12 mentions. As for the Honorable Sunnah, the meaning of *hasan* and *ihsaan* is not different from the literal meanings and usages of the Holy Qur'an. Some relevant Prophet's reports from the Sunnah will be cited later.⁴⁵ The Sunnah also added new uses, as happens in the Prophet's reply to Gabriel's question on the interpretation of *ihsaan*, he said: "It is to worship God sincerely as if you see Him, but if you see Him not, He surely sees you."⁴⁶

Relevant meanings of *Ihsaan*: Indeed *ihsaan* has several meanings but those most important in this context are the following:

1. Perfectibility: It is to work perfectly in the best manner and degree. It is to fulfill all the professional and technical conditions and standards in conformity with the legal regulations

and functional criteria of the work in question. This meaning is reiterated in many verses and Prophetic Hadiths. *Ihsaan* in this sense (i.e. perfectibility), is either an obligatory ordainment or a recommended matter that is highly encouraged in accordance with the category of work. Perfectibility in domains of industries, occupations, and sciences is at least a collective duty, unless it proves an individual obligation in cases of necessity. The nation cannot cope with new serious challenges around the world in fields of sciences, technology, and industry without an increasing scale of perfectibility and creativity. It is included under the legal maxim: «What is necessary to fulfill an obligation is also an obligation». His polymath sheikh Yusuf Al-Qaradawi said, «Of the salient values in the field of production that comes next only to the value of work is the perfectibility and accuracy of work». For Islam, it is not only necessary to work but also to perfect the work. In other words, to do work excellently and perform it perfectly in the highest quality. For Islam, this perfectibility is not a simple supererogatory or redundant or marginal matter, but it is a religious obligation ordained upon every Muslim». ⁴⁷ According to the authentic Hadith, the Prophet said: «God has prescribed *ihsaan* (good treatment/perfection) in all things. So if you kill, then kill well and if you slaughter, then slaughter well. Let each one of you sharpen his blade and let him spare suffering to the animal he slaughters». ⁴⁸ The prophet used the word “*katab*” (i.e. prescribe) to convey the affirmative commandment and the Qur’an also uses it in the same meaning, God (May He be exalted) says: «Fasting is prescribed for you, even as it was prescribed for those before you» (the Qur’an, 2:183). He also says: «Retaliation is prescribed for you in the matter of the murdered» (the Qur’an, 2:178). A person who works neglectfully is religiously condemned by overlooking a religious duty and violating God’s ordainments on the believ-

ing servants. The Prophet (May God's Peace and Blessings be upon him) says: «Surely, God loves that when anyone of you does a work, he should perfect it»⁴⁹ and also says: «God loves that when a person performs a work, he should perfect it».⁵⁰

2. Doing what is best, most excellent, and most beautiful: This requires exerting continuous efforts on the part of those in charge of any activity to achieve two purposes:

- a. The best quality of performance, work, and outcome along with keeping transparency and openness as well as endeavoring to have the best scenarios.
- b. Creativeness in work, so the employee or the organization won't be a mere imitator but they should carefully monitor and follow up to reach creativeness in the concerned field and achieve the best and greatest ever possible service to humankind each in his respected domain. This meaning is repeated in several verses, for example, God (May He be exalted) says: «He may test you which of you is best in deed...» (the Qur'an, 67: 2). The expression "*ahsanu 'amala*" (i.e. best in deed), is formulated in this indefinite manner to convey relativity and puts no limit to creativity. It implies that the test of Muslims is not through simple actions or even good actions but through the production of the best in science, the best technology, the best activity, the best results, and the best care and service. The verse also points out that this excellence knows no limit and must continue progressively making today better than yesterday and tomorrow better than today in all areas of specialties and activities. Thus, God makes the superiority of Muslim nations conditional upon what the Muslims offer to humankind of services, benefits, and best-quality guidance in all fields, God (May He be exalted) says: «You

(true believers in Islam) are the best of peoples ever raised up for mankind» (the Qur'an, 3:110). *Li an-nas* (i.e. for mankind), the preposition "li" (i.e. "for") in the verse implies serving and befitting people through useful matters and bringing about their welfare. With respect to economic activities, the Qur'an is not only contended with demanding (what is good), but it also imposes to do (the best). This appears explicitly in the Qur'anic command to grow and develop the orphan's wealth and the ban placed on approaching this wealth unless it be in the best manner, namely the best ways to keep the orphan's wealth and the best ways of investment to grow and increase it. God (May He be exalted) says: «And approach not the wealth of the orphan save with that which is better, till he reach maturity» (the Qur'an, 6:152). This commandment has been repeated in Surat Al-An'am (6:152) and in Surat Al-Isra (17:34). Since doing what is best is required in case of orphan's wealth, then doing what is best is greatly necessary in more serious activities concerning the environment. In this context, fair treatment is not enough, but the best treatment is a must.

3. *Taqwa* (God-fearing), according to the Prophet's interpretation of *ihsaan* in the report of Gabriel, «Tell me what is Ihsaan?», Gabriel asked, and he said: "It is to worship God sincerely as if you see Him, but if you see Him not, He surely sees you." You told the truth, Gabriel said.⁵¹ According to another authentic narration, "Ihsaan is to fear God as if you see Him, and yet if you see Him not, He surely sees you." You told the truth, Gabriel said.⁵² There is also an authentic narration reported by Ibn Mas'ud stating: «*Ihsaan* is to work sincerely for God as if you see Him, and yet, if you see Him not, He surely sees you».⁵³

Pursuant to this meaning, *ihsaan* means that a human being must have a deep feeling and firm belief that God observes and sees him, so at times of worship or work, do your deeds as if you are in front of God Who sees you. Endeavor to the best of your ability to reach perfection, high quality, and creativeness. This degree of *ihsaan* is the utmost point man can get. However, other serious degrees are also there but a little bit less important than this highest degree, which is to know for sure that God sees you. This sight is another motive, not less than the first, to achieve good quality, perfection, and creativeness.

As far as the Islamic creed is concerned, it is well known that a Muslim who does not believe that God sees him is not a believer, as this is part and parcel of the Islamic creed. The above-mentioned reports provide three interpretations for *ihsaan*: “to worship God”, “to fear God”, and “to work for God”. Indeed, there is no conflict between them, for “to worship” includes two meanings: first, a general meaning equally applies to all good useful deeds devoted for the sake of God; second, a special meaning applies to the religious rituals. The third interpretation, “to work for God”, affirms the general meaning of “to worship”, whereas the second meaning, “to fear God” is firmly associated with the deep belief that creates a sincere righteous human working on these two ranks. This interpretation, “to fear God”, achieves the meanings of righteousness, piety, God-fearing, and careful observation of God’s rules before work, at work, and after work. These due concerns are sources for plenty of good and welfare, strong motives for quality and perfection, and stimuli for creativeness.

Evidently, the Prophet did not interpret *ihsaan* in this honorable authentic Hadith according to its familiar meaning, that is, to do what is good and act perfectly. Instead, he emphasized the motive behind these meanings, as this motive activates powers

and only through it the sought purpose comes true. Worldly motives could sometimes achieve good perfection and even creativeness, but the public welfare and commitments only come true when souls got purity through high discipline and association with the Creator. This is the proper intent behind the honorable Hadith. Very recently, fair economists have stated that the financial crisis from 2008 until now stemmed actually and essentially from the absence of ethics. The actual crisis is thus ethical and has led to a financial and economic crisis, which is an embodiment of the importance of *ihsaan* in this regard.

Man is instinctively a true lover of money, dominance, and prestige. God says, «And in his love for wealth, he is very intense» (the Qur'an, 100:7). God also says: «It has been made attractive for people to love the desired things; that is, women, and children, hoarded heaps of gold and silver, branded horses, cattle and tillage. That is an enjoyment of the worldly life and with Allah lies the beauty of the final resort» (the Qur'an, 3:14). A man could only restrain his powerful desires through *taqwa* and *ihsaan* in this sense as would be later explained. This subconscious spiritual side that the Prophet (May God peace and Blessings be upon him) mentioned in his interpretation of *ihsaan* requests a Muslim physician to rise to this level when treating with the patient or the organization. He should do all his work perfectly as if doing it in the presence and observation of God Who watches him.

To give an example, to God belongs the Most Supreme example, of a person dealing with environment; if he knows that his supervisor accompanies and watches him, how careful, creative, and serious will be the level of his work? What then about the Bounteous Creator, the Lord of this life and the Hereafter,

Who attends and watches you? Undoubtedly, a person in this case will prove most careful and keenly feels his accountability. For the significant importance of this side, Islam paid utmost care for the spiritual change and development of soul, heart, spirit, and mind to what is best. Any actual and comprehensive change will not come true without changing the internal intellectual patterns of people, God says, «Allah changes not the condition of a people until they (first) change that which is in their hearts» (the Qur'an, 13:11).

This is way God imposed the fasting a complete month and made it one of the central obligatory foundations of Islam connecting it with *taqwa* to attain the true meaning of self-observation and self-reformation, God (May He be exalted) says: «Fasting is prescribed for you, even as it was prescribed for those before you, that you may become righteous» (the Qur'an, 2:183). Verification reveals that *taqwa* is the outcome of firm belief, sound creed, and devotional rituals and permanent remembrance of God. Thus, God made it one of the foremost goals for revealing books and sending prophets, God (May He be exalted) says: «He it is Who sent among the unlettered ones a Messenger from among themselves, reciting to them His Verses, purifying them (from the filth of disbelief), and teaching them the Book and Al-Hikmah (Sunnah). And verily, they had been before in manifest error» (the Qur'an, 62:2).

The Qur'an is clear on pinpointing the most important job of the Prophet (may God's Peace and Blessings be upon him), which is to do his utmost to help human spirits be purified and lofty through reciting God's verses, disciplining one's soul and heart clearing them from all diseases and filling them with the best virtues and moralities by means of continuous training. Furthermore, it is necessary to direct mind to readings useful for the universe and humanity as well as to books presenting

wisdom and means to public welfare to the whole humanity to achieve the mission of mercy to all creations.

The term *taqwa* and its relevant derivatives have 120 mentions in the Holy Qur'an conveying the meaning of protecting a thing from what is harmful and detrimental and from bad consequences in this life and in the hereafter, God (May He be exalted) says: «The Hajj (pilgrimage) is (in) the well-known (lunar year) months (i.e. the 10th month, the 11th month and the first ten days of the 12th month of the Islamic calendar). So whosoever intends to perform Hajj therein, then he should not have sexual relations (with his wife), nor commit sin, nor dispute unjustly during the Hajj. And whatever good you do, (be sure) Allah knows it. And take a provision (with you) for the journey, but the best provision is Taqwa (righteousness). So fear Me, O men of understanding!» (the Qur'an, 2:197).

The verse proves that *taqwa* deters indecent statements and acts and prevents ecological damage against animals and trees. When the heart is held in *taqwa*, it holds scruple and feels God's Watch over it. It is only then possible to control tongue and organs keeping them away from open and hidden indecencies.

The word "*taqwa*" has been repeatedly echoed concerning familial questions, particularly the good preservation of one's wife or else gentle separation on equitable manners. It also occurs on the relationship with parents and relatives, for *taqwa* helps to safeguard this relationship and to keep patience, forbearance, lenience, kindness, benevolence, and charity. God (May He be exalted) says: «And fear God through Whom you demand (your mutual rights), and (do not cut the relations of) the wombs (kinship). Surely, God is Ever an All-Watcher over you» (the Qur'an, 4:1). *Taqwa* is also mentioned in the context of fair testimony and just judgment free from any external effects, God (May He be exalted) says: «O you who

believe! Stand out firmly for God as just witnesses and let not the enmity and hatred of others make you avoid justice. Be just: that is nearer to piety. And fear God. Verily, God is Well-Acquainted with what you do» (the Qur'an, 5:8). Indeed, *taqwa* is mentioned in all areas of human activities: acts of worship and rites, transactions and prescribed penalty, and legal rulings. Ar-Ragheb Al-Isfahani said, "*taqwa* is to be on guard against all possible dangers that you fear. Fear and *taqwa* are interchangeably used in accordance with contexts in question."⁵⁴

Dr Ahmad ar-Raysuni said, "In the light of the Sharia, *taqwa* expresses a moral, spiritual, cordial state that helps a person, who gets it, to show fine sense of responsibility and self-accountability, so he considers the anticipated consequences and effects of his actions and then acts independently whether the matter belongs to him privately, or pertains to his God or else concerns God's other beings."⁵⁵ In fact, *taqwa* is the self-control that could restrain a person from wrongdoings, so 'Umar Ibn Abdul-'Azeez said, "A person who has *taqwa* is self-restrained, not free to do all what he likes."⁵⁶ That is why 'Umar, the second caliph, objected to Jabir Ibn 'Abdullah (may God be pleased with him): "Would you buy whatever you desire!"⁵⁷ *Tawqā* signifies the watchful heart, the guiding insight, and the careful precaution. Literally, it is a prudent caution and careful safeguarding against what a human hates or fears.⁵⁸

It is also the self-blaming soul that reproaches a person when he does evil or neglects good; it motivates him to abandon harmful sins and expedite to good deeds. Islam associates *taqwa* with several supreme virtues such as guidance, righteousness, spiritual success and salvation, and winning God's Satisfaction, Garden, and even the Sublime Paradise as well as declaring it the best provision a person can keep in many verses. God (May He be exalted) says: «O You who believe, if you fear God, He

will make for you a distinction and will expiate for you your misdeeds, and forgive you; and God is Owner of Mighty Grace» (the Qur'an, 8:29). Muslims are also required to cooperate for doing what helps to attain virtue and righteousness, God (May He be exalted) says: «Help you one another to attain virtue and righteousness; but do not help one another in sin and transgression. And fear God. Verily, God is Severe in punishment» (the Qur'an, 5:2). The Holy Qur'an is keen to introduce *taqwa* to help good marital relationship and good human and familial ties. We almost see no marital issue, in both cases of keeping the bond of marriage or in deciding upon separation but is formulated with the mention of *taqwa* in or following it. The same is true for the familial relationships whose discussion is beyond the scope of this research.⁵⁹

The Sunnah provides an elaborate discussion on this issue as reported in many Hadiths. For example, the Prophet (May God's Peace and Blessings be upon him) says: «Fear God wherever you are, do good deeds after doing bad ones, the former will wipe out the latter, and behave decently towards people».⁶⁰ This complete Hadith controls human relationship with their lord as should depend on *taqwa* to prove abundant source of all good for all God's creation. It ordains that human relationships should be based on morality and decency in all cases, God (May He be exalted) says: «The good deed and the evil deed cannot be equal. Repel (the evil) with one which is better. Verily, he, between whom and you there was enmity, (will become) as though he was a close friend» (the Qur'an, 41:34).

However, when a person commits a sin against his Lord, he should speed up to do a good deed and repent to God with a broken heart and beseech Him for forgiveness. When a sin violates others' rights, a person should apologize for the wronged party, repay the violated rights or trusts, and restore natural

status of things. *Taqwa* embodies human spiritual conscience and moral self-control; it prevents involvement in mischief and sins and restrains one's steps from abysses of lusts. It was *taqwa* that guarded Prophet Joseph (peace be upon him) when the wife of his master tried to seduce him: «And she, in whose house he was, sought to seduce him (to do an evil act), and she closed the doors and said: 'Come on, O you.' He said: 'I seek refuge in God!' Truly, he is my master, he perfected, my living state (So I will never betray him). Verily, the evil-doers will never be successful» (the Qur'an, 12:23). It was also *taqwa* that guaranteed the enforcement of the Sharia-prescribed penalty on wine-drinking, a habit that was deeply rooted and widely addicted in the Arab society, when the last verse declaring a strict prohibition was revealed: «O you who believe, wine and gambling and stone altars and divining arrows are only an abomination, a handiwork of Satan, shun it wherefore, that haply you may fare well. Satan only seeks to breed animosity and spites among you by means of wine and gambling and would keep you from the remembrance of God and from prayer; will you not then desist» (the Qur'an, 5:90–91). It was *taqwa* that stimulated a young girl not to adulterate milk with water. Nevertheless, the mother argued that 'Umar is not aware of it, why should you harbor fear? The girl replied, if 'Umar does not see us, God for sure watches over us and nothing is hidden from him.⁶¹

4. Mercy, which is a disposition to show compassion, due care and concern, sympathy, and mutual affection for the suffering of others coupled with the wish to relieve their distress.⁶² Mercy is a result of *ihsaan*. When a person practices *ihsaan* and does all good things, he is actually merciful. Mercy is part and parcel of *ihsaan*, so it is not proper to discuss it separately. Only a person who does *ihsaan* has the true mercy.

Again, mercy appears to be a matter of heart, which is dif-

difficult to define, especially when we attempt to standardize the ethical principles that are measurable, verifiable, and standardized. Literally, mercy refers to heart's affection, kindness, benignity, and forgiveness.⁶³ The practical manifestation of mercy is to do what is good and prevent what is harmful and evil, which also belongs to *ihsaan* and then no need to discuss it as an independent principle.

For Islam, it is undoubtedly true that mercy has an utmost importance; God describes Himself with two attributes derived from it, namely the All-Merciful and the Ever-Merciful. These two attributes are repeated in the *basmalah* (i.e. *bismillah ar-rahman ar-raheem*: in the Name of Allah, the All-Merciful, the Ever-Merciful) throughout the Holy Qur'an and in other occasions. Many Hadiths celebrate the significance of mercy. For God, the Prophet's Mission is nothing but a mercy to the whole creation, He (May He be exalted) says: «And We have sent you not but as a mercy for the whole creation (all that exists)» (the Qur'an, 21:107).

The Qur'an is also revealed as a mercy for all, God (May He be exalted) says: «Certainly, We have brought them a Book (i.e. the Qur'an) which We have explained in detail with knowledge, – a guidance and a mercy to a people who believe» (the Qur'an, 7:52). The Prophet (May God's Peace and Blessings be upon him) says: «The merciful are shown mercy by the All-Merciful i.e. God. Be merciful on the earth, and you will be shown mercy from Who is above the heavens».⁶⁴ He also says, «The similitude of believers in their mutual love, affection, sympathy is that of one body; when one limb suffers, the whole body suffers because of sleeplessness and fever».⁶⁵

Books of Sunnah specified independent chapters for the issue of mercy. In his *Saheeh*, Imam Al-Bukhari entitled: «A chapter: Showing Mercy to People and Animals» where he

cited several Hadiths on the account of a man (some narrations mention a prostitute), who quenched the thirst of a dog. God then appreciated his/her action and forgave him/her. The Companions asked: “Shall we be rewarded for showing kindness to the animals also?” The Prophet (May God’s Peace and Blessings be upon him) said, “A reward is given in connection with every living creature.”⁶⁶

These Hadiths draw inclusive mercy that is equally granted to all, even to non-Muslims and animals. A veterinarian should then show mercy in the treatment of animals. This Sharia is the law of mercy as Ibn Al-Qayyim put it, “[Sharia is] wholly proved a perfect mercy,”⁶⁷ revealed by the All-Merciful and Ever-Merciful God as hundreds of verses confirm, to the Prophet sent to be a mercy for the whole creation. That is why some scholars summarized the objectives of Sharia in two expressions: Glorifying the Truth (God) and Showing Mercy to the Creation. According to this meaning, mercy, tolerance, benevolence, purity, goodwill, and love of truth, which are – for some scholars – the bedrock of ethical principles,⁶⁸ are all inherent in the comprehensive meaning of *ihsaan*.

The Islamic Milestones for Ecological Reform

In the light of legal texts of the Book and Sunnah, we can say that the milestones of ecological reform and treatment are briefly as follows:

First: Ethical and doctrinal perspectives

A Muslim believes firmly that environment, like him, is the creation of God; he thus pays it due respect and feels responsible for it. He also knows that mischief and corruption are impermissible on earth, so he respects God’s Will in this law and never

violates it. Furthermore, he believes in the Hereafter's reward and punishment and that man is accountable for all acts, minor or major: «So whosoever does good equal to the weight of an atom shall see it. And whosoever does evil equal to the weight of an atom shall see it» (the Qur'an, 99:7–8). He is keenly diligent to see only good deeds on that day.

This creed is a powerful motive to reform and prove useful, not to destroy and prove harmful, for even if a destructive person could escape punishment in this life, he could not escape it on the Last day. This firm creed also helps man to ditch vices of greed, avarice, vain pride, and earthly brag and acquisitive behaviors to gain and possess money lawfully or unlawfully. The ethical motive strongly encourages self-restraint. In this regard, Islam draws a balanced scale between materialism and monasticism. However, the available scope is not enough to explore this area.

Justice is one of the foremost ethical values on which the Qur'an places special importance in treatment with environment and other issues. Justice is the foundation respected in the heavens and the earth as well as moderation and equanimity free from excessiveness and prodigality. God (May He be exalted) says, «Eat and drink, but be not prodigal. Surely, He loves not the prodigals» (the Qur'an, 7:31).

It is necessary to keep abstemious behavior even in eating and drinking as well as use, consumption, production, and so on. Authentic Hadiths discouraged prodigal behaviors even in seawater. God (May He be exalted) strictly menaces the spendthrift likening them to brothers of devils, God (May He be exalted) says: «Verily, spendthrifts are brothers of the devils and the Devil is ever ungrateful to his Lord» (the Qur'an, 17:27).

Other authentic detailed Hadiths are there on the prohibition of extravagance, squandering, and splashing out money.

Other ethical values stimulating good and preventing harm include lenience, pity, and merciful treatment with all things and even with inanimate matters. The Prophet (May God's Peace and Blessings be upon him) says: «God is lenient and loves lenience in all matters». ⁶⁹ According to another narration, «Verily, whenever lenience is found in anything, it beautifies it and whenever it is taken out from anything it damages it». ⁷⁰ Many other similar verses and Hadiths encouraging merciful behavior with everything to the extent that God consigned a woman to fire because of a cat which she confined until it died. This is contrary to the man whom God admitted to Paradise because of a dog, which he quenched its extreme thirst. God also threatens those who kill sparrows and animals for no respectable legal purpose. Similar threats are there for anyone who unjustly cuts a lote-tree, under the shade of which travelers and beasts take shelter, God will bring him into Hell headlong. ⁷¹ The corpus of these moral values contributes to the complete preservation of environment and guarantees prevention of violation and corruption.

Second: Human, intellectual, and scientific perspective

The Holy Qur'an states repeatedly that man is originally created from dust and then mud, so earth is the mother of mankind after their mother Eve and to it we shall all return at the end, God (May He be exalted) says: «Thereof (the earth) We created you, and into it We shall return you, and from it We shall bring you out once again» (the Qur'an, 20:55). If good treatment and kindness are due to mothers, the same proper treatment should go to the original mother, the earth. Finally, all should return and go back to the earth after death. This perspective leaves deep spiritual effects on man's close relationship with the earth. He thus loves and looks after the earth as possible as

he could. This meticulous verified knowledge of the legal texts has resulted in ideal ecological behaviors. (In this regard, the Qur'anic directions have actually left a plain practical effect on the Islamic civilization, in which the aestheticism as an ecological cultural conception occupies a remarkable role in creating gentle human behaviors toward ecological sceneries).⁷² The Qur'an alludes to this meaning, as God (May He be exalted) says: «It is only those who have knowledge among His servants that fear God» (the Qur'an, 35:28).

Third: Positive view of the environment

As far as Islam is concerned, the environment is an embodiment of good. It is in essence functioning in the interest of man and is ultimately yielding fruitful outcome to his advantage. Many verses are there to substantiate that God has created it for man's interest, God (May He be exalted) says: «He it is Who created for you all that is on earth» (the Qur'an, 2:29). Man should thank God for this grace and exert his utmost endeavor to keep it safe through continuous reform, away from damage and corruption. All good and blessed things in the environment are sufficient for human happiness and welfare if they have been used, invested, and distributed in the optimal manner, a fact that many verses confirm, for example, God (May He be exalted) says: «He (God) blessed it, i.e., the earth, and measured therein its sustenance (for its dwellers) in four equal Days. This for all those who ask (about its creation)» (the Qur'an, 41:10). For Islam, the scarcity of resources is baseless. In fact, resource abuse, exploitation, overconsumption, unjust distribution, and wrong redistribution form the problem.⁷³

Fourth: Legal perspective and reward/punishment

principle

In its treatment with ecological problems, Islam is not sufficient with the above-mentioned moral dimensions, but it also puts the reward and punishment principle in force in this life and in the life hereafter. This is in addition to other appropriate regulatory laws such as penalizing ecological crimes. It is well known that Islam has enacted the strictest penalty for the crime of mischief on earth, as God (May He be exalted) says: «The recompense of those who wage war against God and His Messenger and do mischief in the land is only that they shall be killed or crucified or their hands and their feet be cut off from opposite sides, or be exiled from the land. That is their disgrace in this world, and a great torment is theirs in the Hereafter» (the Qur'an, 5:33). Evidently, mischief-making may in some cases include some ecological crimes. God even unveiled some of these crimes when describing the mischief-makers: «And when he turns away, his effort in the land is to make mischief therein and to destroy the crops and the cattle, and God likes not mischief» (the Qur'an, 2:205). Furthermore, the general principle of Islamic Law states that every offense against the law with damage or harm ensued, for which God enacts prescribed punishments to ward it off and deter people or else entrust just authority with their jurisdiction to prescribe the proper discretionary punishment.⁷⁴

Fifth: Benefit-interest-based dimension (common interests and reciprocal rights)

In addition to the above-mentioned salient dimensions suggested for the treatment of ecological problems and dangers, Islam focuses on the dimension of common interests and reciprocated interests between man and environment in the light of the following:

Man is an inherent part of the environment. God has created man to reform and take care of the environment. He could not achieve this goal unless the environment is whole. In other words, he can use it only when it is whole and useful, for he is the chief beneficiary. The Holy Qur'an presents directions that are new in religious realm, when God has commanded to cultivate and use the earth and get its benefits in the same way He has commanded the performance of *salah* (prayer) and *dhikr* (devotional remembering of God); God (May He be exalted) says: «O you who believe, when the call is proclaimed for the prayer on the day of Friday, come to the remembrance of God (i.e. prayer) and leave off business (and every other thing). That is better for you if you did but know. Then when the prayer is ended, you may disperse through the land, seek the Bounty of God (by working, etc.), and remember God much: that you may be successful» (the Qur'an, 62:10-11). In the same manner that God commands the performance of *dhikr* and refraining from transactions at the time of *salah*, He also commands to disperse through the earth for reforming and cultivating to get benefits, profits, and fruits thereof. This meaning is confirmed in many verses, for example, God (May He be exalted) says: «He it is Who has made the earth subservient to you (i.e. easy for you to walk, to live and to do agriculture on it); so walk in the path thereof and eat of His provision. And to Him will be the Resurrection» (the Qur'an, 67:15). He thus commands walking through the earth in pursuit of sustenance and abundance.

These verses and others similar to them clearly indicate the obligation to use the environment as a part of an environmental behavior entrusted to man to undertake it compulsorily within his general role in the life. This Qur'anic direction left real effect on the course of Islamic civilization as manifested through the

aesthetic reading thereof. Hundreds and even thousands of poetry divans and literature collections chanted the beauty of nature and expressed Muslim deep passion regarding it. Buildings, carpets, and different tools are also embellished with wonderful designs and decorative forms that echo the beauties, charms, and wonders of natural views.⁷⁵ As man uses environment scientifically, culturally, spiritually, physically, and aesthetically, he should remember these divine bounties and thank God for them. He should respect and preserve them from destruction. We can then see the relationship between God's numerous graces and the ban of mischief-making on the earth, God (May He be exalted) says: «Remember the graces (bestowed upon you) from God and do not go about making mischief on the earth» (the Qur'an, 7:74).

Message of universal mercy

This Islamic approach left an impressive effect on the practical behavior dependent upon universal lenience and mercy that God declared as the purpose and objective of Muhammad's Mission. God (May He be exalted) says: «And We have sent you not but as a mercy for the whole creation (all that exists)» (the Qur'an, 21:107). "All that exists" includes plants, humans, and animals. In order not to forget this mercy, God commands a Muslim to initiate all his activities, movement, rest, quietness, reading and learning, education, and creative achievements with *bismillah ar-rahman ar-raheem*, i.e. in the Name of Allah, the Merciful, the Compassionate, following the Constitution of Islam (the Holy Qur'an) that begins all of its *surahs* with this verse and only one *surah* is exceptional. It is also in submission to God's order to his Honorable Prophet: «Read, in the Name of your Lord Who has created (all that exists)» (the Qur'an, 96:1). The Prophet thus declared anything initiated without God's

name: *bismillah ar-rahman ar-raheem*, devoid of blessing.⁷⁶

The Islamic thought pays such utmost importance to the material world and the environment in terms of optimal use, since they are sources of inventiveness and creative thought and stand for evidence of God's existence and Perfect Attributes. On the contrary, the Greek culture, which forms one of the main roots of Western culture, places the utmost importance on the mere rationalization. For this culture, pursuing the truth through the physical world is to little avail, as manifested in the Plato's Philosophy and its extensions where the world of matter is only perceived as shadows of realities found in the World of Forms.⁷⁷ Some went to the extremes and denied the facts of material things.⁷⁸

Principle of reciprocal rights

Using the wonderful Islamic principles in this area is equal to the principle of reciprocal rights, namely every right implies a duty. The Prophet (May God's Peace and Blessings be upon him) alludes to this principle in the relationship of God with his servants when the Prophet asked: "Do you know what is the right of God upon His servants?, and what is the Right of His servants upon Him? " I said: "God and His Messenger know better." Upon this the Prophet said, "God's Right upon His servants is that they should worship Him Alone and associate nothing with Him; and His servants' right upon Him is that He should not punish who does not associate a thing with Him."⁷⁹

This Hadith lays down the key rule of treatment reliant on reciprocal rights, namely on rights and obligations. No one enjoys absolute rights without any obligation thereupon, for every right implies duty. This is the rule of justice and balance. It is a general principle in the Islamic law that the Prophet mentioned even in the context of the relationship between a servant

and God, as a sign of God's favor of man. The Prophet emphasizes the rights even due to one's limbs when stating: «Your body has a right on you, your eyes have a right on you, and your wife has a right on you, and your guest has a right on you».⁸⁰ According to another authentic Hadith, Salman of Persia said to Abu ad-Darda': «Indeed your Lord has a right upon you, yourself has a right upon you, your family has a right upon you, and your guest has a right upon you. So give each the right they are due. Abu ad-Darda' then went to the Prophet and mentioned that, then he said: Salman has told the truth».⁸¹ This principle enroots the importance of thanking God for these bounties and blessed graces coming from the earth and the heaven (the universe) as well as doing what is good and useful and preventing what is harmful and detrimental, as a principle firmly believed in a believer's heart, thought, and perception.

Sixth: The correct use of things to work properly

Islam states that it is impermissible for a Muslim to tell a lie even about animals and other beings. Like humans, a Muslim should not deceive or lie in his treatment with animals. The animals should then be given their usual natural fodder and a person should spare the nature and environment his harmful intervention, as every ecological violation is legally forbidden according to the authentic Hadith: «Harm is forbidden to initiate or to reciprocate»,⁸² which forms a general legal maxim and collective Islamic principle. As a result, the Islam view entertains doubts and due reservations regarding the endeavors of genetic engineering to change the working systems of nature until they are proven safe and free from ecological damage and destruction.

The Islamic Fiqh (Jurisprudence) Council issued a resolution number (100/2/d10) stipulating, for allowing genetic

engineering, “to take all possible precautionary measures to prevent any possible damages – even on the long term – that may befall man, animals, or environment.”⁸³ It is not hidden that grave consequences and dangerous effects may be ensued because of manipulation with genes, genetic characteristics, and the nature of fodder. Some problems have already appeared, such as bovine spongiform encephalopathy (BSE) and similar animal disease as well as the problems of ozone layers. Here, we come to realize how deep and accurate is the Islamic view concerning the necessities of taking all possible precautionary measures to preclude any change in nature.

For Islam, it is strictly unlawful to manipulate with God’s creation and it is even a devilish act that God ascribed to Satan: «Verily, I will mislead them, and surely, I will arouse in them false desires; and certainly, I will order them to slit the ears of cattle, and indeed I will order them to change the nature created by God. And whoever takes Satan as a friend instead of God, has surely suffered a manifest loss» (the Qur’an, 4:119). Early scholars explained the change of creation to mean the manipulation with sound instinct and natural form and configuration⁸⁴ of man, animal, or environment.

Seventh: Protecting the environment from damage and mischief

Islam paid utmost attention to the protection of environment from unnecessary damage and considered it a form of spreading mischief on the earth that is worthy of painful punishment. Describing the wrongful mischief-makers, God (May He be exalted) says, «And when he turns away, his effort in the land is to make mischief therein and to destroy the crops and the cattle, and God likes not mischief» (the Qur’an, 2:205). The exegetes mention that this verse was revealed when some persons killed

the animals and set fire to farms.⁸⁵ Dr Al-Qaradawi mentioned a collection of authentic Hadiths on the prohibition of destroying anything unjustly and vainly.

For example, the Prophet (May God's Peace and Blessings be upon him) said: «Whoever kills a small bird for no reason, it will beseech Allah on the Day of Resurrection saying: O Lord, so and so killed me for no reason. And he did not kill me for any beneficial purpose» (Narrated by Abu Dawud). The Prophet also said: «Not a man would kill a bird or what is more valuable than it unjustly but God will hold him accountable for it». (Narrated by Ahmad, an-Nasa'i, and Al-Hakim who judged it as authentic). In his commentary on these two Hadiths, sheikh Al-Qaradawi said, "Reading these two Hadiths, a jurist concludes that it is forbidden to kill animals for any purpose other than eating." Imam Al-Mundhri also cited these two Hadiths in his book: "At-Targheeb wat Tarheeb," under the title, "*at-tarheeb min Al-muthla bil-hayawan wamin qatlihi li ghayr aklihi,*" that is, Strict Discouragement from maiming animals or killing them unjustly, not for eating.

Reading these Hadiths, the People for the Ethical Treatment of Animals also conclude that it is obligatory to respect these living animals and keenly keep their lives safe unless when necessary. Ecologists also deduce from the two Hadiths that it is necessary to preserve the ecological components, prevent ecological abuse and destructive risks, and save living beings from unnecessary extinctions.⁸⁶

Islam is strictly keen on protecting livestock and saving living species from extinction. The Prophet (May God's Peace and Blessings be upon him) forbade from killing dogs⁸⁷ and even threatened anyone who unjustly cuts a lote-tree under the shade of which travelers and beasts take shelter that God will bring him into Hell headlong.⁸⁸ Islam also safeguards the

agriculture and forestation. The Prophet (may God's Peace and Blessings be upon him) said, «No Muslim plants a plant, then whatever is eaten from it is charity and whatever is stolen from it is charity, and whatever is subtracted from it is charity to be rewarded on the Last Day» (Narrated by Muslim). The Prophet even commanded to afforest and plant to the last breath of one's life and to the last moment of the universe life, he said: «If the Last Day comes while you have a palm-cutting in your hands and it is possible to plant it, you should plant it».⁸⁹

Natural reserves and reserved states: In this context, it is worth mentioning that Islam specified some natural reserves where animals and plants lived and grew freely and safely and no one could harm them unless necessary, for example, the fierce deadly animal was only exceptional. A Muslim, male or female, is prohibited to hurt animals or cut down trees in the state of *ihram*, that is, ritual state for Hajj and 'Umrah when a person wears special clothes during the days of Hajj. God (May He be exalted) says: «O you who believe! Kill not the game while you are in a state of *ihram*» (the Qur'an, 5:95).

Eighth: Keeping the environment clean

The Islamic teachings confirmed the importance of keeping the environment clean as well as the cleanup of man, environment, tools, mechanism, etc. God commands purity and cleanup in a great number of verses and Hadiths. It is enough to know that the term *tahara* (i.e. purity and cleanup, physical and spiritual) has been mentioned 31 times in the Holy Qur'an. The validity of some acts of worship is even made conditional upon purity such as prayer and the permissibility to have intimate relations with one's spouses. Purity and cleanup are also reasons for getting people's love and affability.

Ninth: Indirect solutions

The ecologists suggest some indirect solutions for ecological problems such as problems of poverty, food, starvation, and medicine⁹⁰ through the comprehensive development and the eradication of poverty. As far as Islam is concerned, Islam pays utmost care for these matters through the duties of charity, obligatory or supererogatory, expiations, and cooperative social solidarity as well as imposing work and production at different fields of agriculture, industry, and commerce.

Tenth: Policy of awareness-raising and minimizing expenditures

The Holy Qur'an focuses on the ecological education and the sound awareness-raising concerning the environment, its effects, benefits, perks, and problems as well as proper ways of ecological treatment to overcome these problems through the rationalization policy referred to earlier.

Ecological Balance Versus Ecological Disruption

Ecological balance: the concept and the Qur'anic way to achieve it

For the ecologists, ecological balance refers to stabilizing the elements and diverse components and organisms of the ecosystem in their natural state.⁹¹ As for the ecosystem, it is the continuous network of interactions between the various ecological organisms and their environment through the relationships and ties that the Originating Creator founded for balance to come true. The ecosystem includes all the living organisms such as man, animals, plants, trees, and inanimate elements such as water, dust, air, minerals, sun rays, and the components of gas atmosphere. In fact, God assigned specific roles and effects to each atom of the macrocosm's components including the suns, the stars, the planets, and earth's organisms

to achieve ecological balance. God (May He be exalted) says: «And verily in the heaven we have set mansions of the stars, and We have beautified it for beholders. And We have guarded it from every outcast devil, save him who steals the hearing, and them does a clear flame pursue. And the earth have We spread out, and placed therein firm hills, and caused each seemly thing to grow therein. And we have given unto you livelihoods therein, and unto those for whom you provide not. And there is not a thing but with Us are the stores thereof. And we send it not down save in appointed measure. And We send the winds fertilizing, and cause water to descend from the sky, and give it you to drink. It is not you who are the holders of the store thereof. It is indeed We, and only We, who give life and bring death, and We are the ultimate inheritor (of everything)» (the Quran, 15:15–22).

The honorable verses point out the living ecological components and the inanimate components such as suns, planets, stars, mountains, and rains. They made it plain that God created all these brings in an absolute exactness and perfection in a certain determined measure to bring about ecological balance. Life and death are also two ecological beings for the achievement of the wished balance: «Should He not know what He created? And He is the Subtle, the Aware» (the Qur'an, 67:14). The modern science proves what the Holy Qur'an mentioned in this verse and other similar ones that the plants are distributed in balanced ratios on the earth. Similarly, there is a balance between the amount of carbon dioxide absorbed and the amount of oxygen released. For example, the oxygen ratio in the atmosphere is exactly 20%; if this ratio increases, the earth becomes hell with the first spark of fire, but if this ratio decreases, the mass of living organisms falls suffocated. Similarly, the carbon dioxide is less than 1%. If this ratio increases,

humankind will die poisoned and if it decreases, all plants will die and life comes to a deadly end.⁹² The universe is created and planned in an exact measurement. God (May He be exalted) says: «He raised the sky high and has placed the scale, so that you should not be wrongful in weighing. Observe the correct weight with fairness and do not make weighing deficient» (the Qur'an, 55:1–12).

The Outset of Surat ar-Rahman and Ecological Balance

«The Rahman (i.e. the All-Merciful Allah) has taught the Qur'an. He has created man. He has taught him (how) to express himself. The sun and the moon are (bound) by a (fixed) calculation. And the stars and the tree both prostrate (to Allah). He raised the sky high and has placed the scale, so that you should not be wrongful in weighing. Observe the correct weight with fairness and do not make weighing deficient. As for the earth, He has placed it for creatures, in which there are fruits and date palms having sheaths as well as the grain having chaff and fragrant flowers» (the Qur'an, 55:1–12). In these introducing verses, the Qur'an emphasizes the command to observe the correct weight and exact measure with fairness for each being and atom in the universe. This fine measure and balance go amid all living organisms (man, animals, and plants); balance judges the relationships between what man takes from others and what they give as previously stated.

The Qur'an also forewarns against deficient weighing. The modern science states that the forces underlying the eco balance (including the earth and heavens) are many, such as gravity, nuclear forces, centrifugal forces, winds, mountains, and even every atom of the universe; its force and regular motions, as well as all relevant types of these forces from galaxies to atoms, including plants, animals, and seas, are all

essential components of God's creative balanced creation, which is an embodiment of eco balance and fine scales.

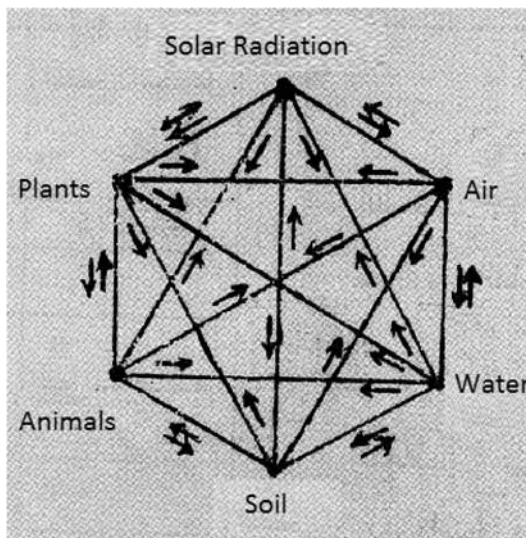
For example, God has created two forces between the heavens and the earth, namely the gravity and centrifugal force and thus the planets and other astronomical celestial bodies keep their due orbits and distances from one another. God (May He be exalted) says: «Allah it is Who raised up the heavens without visible supports, then mounted the Throne, and subjected the sun and the moon (to His Laws), each runs unto an appointed term; He orders the course; He details the revelations, that haply you may be certain of the meeting with your Lord. And He it is Who spread out the earth and placed therein firm hills and flowing streams, and of all fruits He placed therein two spouses (male and female). He covers the night with the day. Behold, verily in these things there are Signs for those who consider!» (the Qur'an, 13:2-3). The verses indicate the elements that bring about the cosmic deep delicate balance.⁹³ The mass of earth size, the earth distance from the sun, and the outer shape of earth are significantly important for balance. On the one hand, if the earth size is less than it is, its gravity will be weaker and will not be able to keep the surrounding atmosphere. On the other hand, if the size is bigger, it will attract all the toxic gases and poison the atmosphere causing life to end on the earth surface, another salient factor of adaptation to be added to the size, which is the interior structure of earth. The layers forming the earth planet earn it a magnetic field that plays an effective role in preserving our life.⁹⁴

It is scientifically proved that ecological imbalance occurs due to man's detrimental intervention to add, modify, or change by scientific methods. Thus, God forbade this form of harmful intervention in several verses and made this change a form of man's obedience of the wicked devils. Relating the account of

dismissing Satan from paradise because of his refusal to prostrate himself to Adam, God (May He be exalted) says: «God cursed him. And he (Satan) said: “I will take an appointed portion of your servants. Verily, I will mislead them, and surely, I will arouse in them false desires; and certainly, I will order them to slit the ears of cattle, and indeed I will order them to change the nature created by God.” And whoever takes Satan as a friend instead of God, has surely suffered a manifest loss» (the Qur’an, 4:119). Thus, God ascribed every form of ecological corruption in earth, heaven, seas, and atmospheres to man, God (May He be exalted) says: «Evil (sins and mischief) has appeared on land and sea because of what the hands of men have earned (by oppression and harmful actions), that He i.e. God, may make them taste a part of that which they have done, in order that they may return i.e. beg His Pardon)» (the Qur’an, 31: 41).

God submitted earth to man in the best state of reform, beauty, and perfectibility. It was man’s duty to keep this reform, beauty, and grace since he is responsible for that, as God (May He be exalted) said: «And do not do mischief on the earth after it has been set in order» (the Qur’an, 7:56). The problem is not in human intervention and activities in nature but in the anticipated damage because of following personal desires with no care for truth, justice, and the Hereafter. God (May He be exalted) says: «And if the truth had been in accordance with their desires, verily, the heavens and the earth, and whosoever is therein would have been corrupted!» (the Qur’an, 23:71). These verses indicate that activities intended to bring about corruption and destruction only stem from following desires and pursuit of dominance that lead to ecological damage and world destruction. That is why God revealed the Heavenly laws and ended them with the Holy Qur’an to reform man, inside

and outside, to have a good behavior through the true creed and firm belief in God's Oneness and Attributes. Man then feels God's Watch over his all actions. Similarly, the belief in the Last day, the Day of Reward and Punishment, affects man's behavior, so he fears that Horrible Lasting Day that will be so long for mischief-makers and wrongful tyrants. The two foundations of continuity and balance are matter and energy, since the interaction of energy with inorganic matter gives rise to organic matter that helps form living bodies, which turn decayed to return to the inorganic state. Matter is in a continuous rotating cycle contrary to the energy, that is, the sun provides the earth with the necessary energy continuously.



When both a snail and alga exist together, a balanced system is formed with food and oxygen provided, so each of these organisms gets the necessary supplies from these ambient conditions. Natural ecosystems are then in a state of balance. Upon the intervention of man, however, to introduce new technolo-

gies such as providing irrigation to dry areas or taking out some ecological elements such as cutting forests down, ecological crises appear.⁹⁵ The ecological balance is there at first through this firm link between man and other living organisms as well as plants including trees. God made the life of these organisms supportive to and conditional on one another. Living organisms inhale oxygen from plants. Plants take carbon dioxide from the living organisms and release oxygen. It is God's wisdom that made the amounts of plants on earth suitable for the atmosphere size; the plants convert carbon dioxide into nutrients and chemical energy used to fuel the organisms' activities through the process of photosynthesis to form the chlorophyll. This fine balance between the two worlds; each of them takes and releases in an exact manner and hence integrity and balance ensued.⁹⁶ In fact, each race, species, or even each atom plays a specific role and task in the macrocosm to bring about balance.

Dr Abdul-Badee'Hamza Zalal said, "The results and findings of ecological studies and researches indicated that the extinction of only one species of the biological organisms found in any ecological region around the world leads to the disintegration, damage, and disruption of the whole biological ecological cosmic web leaving it to meet unknown fate. The damage is not confined to the region where the ecological disruption took place. It moves to other adjacent regions... all species, forms, and sizes of the living organisms including plants, animals and microbiology have significant roles in ecological balance. They perform an intricate, delicate, and balanced interaction with one another but human various activities may indirectly disrupt it."⁹⁷ Different genera, many species, and varieties of multiplying organism play a serious role to achieve ecological balance, for God never creates a genus, a species, or an organism in vain; they are all created for purposeful benefits and wisdoms. For

example, the varieties of plants yield many benefits:

1. The continuous benefits, profitability, and integrity: The Holy Qur'an indicates this fact when God (May He be exalted) says: «And put forward to them the example of two men; unto one of them We had given two gardens of grapes, and We had surrounded both with date-palms; and had put between them green crops (cultivated fields)» (the Qur'an, 18:32). Al-Razi said, «Know well that God ascribed several descriptions to this garden... the third description: «had put between them green crops (cultivated fields)», which conveys the following: first, the earth is decreed to have all kinds of sustenance and fruits; second, the earth is decreed to be of great vastness and far-distanced corners; third: these facts result in various benefits based on seasonal basis, which is proven another fruit. The benefits are always abundant and continuous...» Again, in his comment on God's statement: «And he had fruit» (the Qur'an, 18:34), he understood it to mean different kinds of property and wealth.⁹⁸
2. Protecting crops and fruits from epidemics: the fact that there exists different species of flora in each ecological region is an ecological protection. Conversely, cultivating only one species in a certain area is liable to many epidemic diseases, as happened in America at the 1960s when they allocated some areas for growing wheat, but epidemics destroyed it completely. The ecological variety in the verse is connected with varieties of crops.
3. Increasing the soil fertility to resist drought, affliction, and temperature and protect underground water supplies in soil.
4. Shielding against winds and storms and protecting soil erosion and desertification. The verse states this fact: «We

had surrounded both with date-palms». Farmers make similar green walls around their orchards.

5. Preserving the survival and multiplication of the living organisms as enhanced by the existent varieties of plants.⁹⁹

Reasons for Ecological Imbalance

The phenomenon of ecological imbalance may be referred to the following reasons:

1. Human behaviors and activities that violate the moderate limits in industrialization, some pharmaceutical, insecticide, and pesticide industries. For example, 125,000 birds were killed over a year and half when farmers of a state of the United States complained about the attacks that falcons and owls did against their chickens. Thereupon, rats thus rapidly increased and caused graver losses in farms. Similarly, when vermicides used to kill a specific worm, many epidemics spread over there, such as red-back spiders and mole crickets, because the vermicides killed the natural enemies of these epidemics.¹⁰⁰ Ecological intervention resulting in changing the living and nonliving elements and creatures could leave dangerous effects. Some countries intervened to increase profits gained from cattle feeding them with animal protein and similar substance, which led to the rise of Bovine Spongiform Encephalopathy (BSE).
2. Introducing a new element to a balanced ecology:
 - 2.1. Introducing a new element to a balanced ecology such as intervening rabbits to Laysan Island, Hawaii, because of the abundance of grass. However, the rabbits grew and increased rapidly. The Island was swarming with rabbits, which exhausted all the available grass and soon they starved to the death, besides the pollution

ensued.

- 2.2. Introducing water hyacinth to Egypt as an ornamental plant: However, this plant grew rapidly and spread everywhere causing water pollution and providing a proper environment for the growth of snails and Bilharzias. It also emerged as an ecological disaster because of the loss of River Nile water through transpiration.
3. Getting out a living being from a balanced ecology
 - 3.1. Cutting down forests for regular cultivation or housing: This action results in soil erosion and dislodgment of animals from their familiar land.
 - 3.2. Killing falcons in America as mentioned above.
4. Change of natural factors
 - 4.1. Backfilling natural pools and wetlands, which led to the destruction of the local flora and fauna and gave rise to new organisms.
 - 4.2. The occurrence of folds in earth crust, which led to changing the lands, water bodies, and types of organisms.¹⁰¹

Way to Treatment:

Bringing about the necessary ecological balance provides the proper treatment with these ecological problems through the abidance by the following three principles: prevention of mischief, reform, and good behavior.

First: It is necessary to prevent anyone, no matter whom, from doing any harmful action against the environment in all areas. This prevention cannot materialize actually without reforming man's soul and spirit, mind, and heart. This reform comes through the following points:

- a. Implanting the true creed, firm belief, righteousness, and careful observation of God's watch over all one's

actions: «To worship God sincerely as if you see Him, but if you see Him not, He surely sees you».

- b. Reforming behaviors through the proper education, training, and continuous discipline as well as teaching high virtues and noble morals, particularly lenience, kindness, and mercy. Assiduous training is necessary to abandon and even eliminate all immoral acts, especially cruelty, corruption, and mischief.

Second: Issuing international, national, and regional legislations and laws against all actions that result in ecological damages or imbalance.

Third: Religious awareness-raising: it is necessary to explain the Shari'a prohibition of all forms of ecological mischief and damage as well as the prohibition of immoderate and prodigal behaviors, greed and avarice, and pursuit of immoral behaviors to gain or increase profits at any expense even if these behaviors may endanger the ecological balance.

Fourth: Turning the ecological awareness-raising to be part and parcel of culture, human nature, and intellectuality.

Notes

- 1 See, e.g., Al-Qamoos Al-Muheet, Lisan Al-Arab, and Al-Mu'jam Al-Waseet (*qasada* entry).
- 2 Ibn 'Ashur, *Maqasid ash-Shari'ah Al-Islamiyyah*, ed. Muhammad A. Al-Misawi (Jordan: Dar an-Nafaes: 1421), p. 251.
- 3 Ahmad ar-Raysuni, *Nazariyyat Al-Maqasid 'Inda ash-Shafi'i* (IIIT Edition), p. 7.
- 4 See, e.g., Al-Qamoos Al-Muheet, Lisan Al-Arab, and Al-Mu'jam Al-Waseet (*ba'a* entry)
- 5 Zaynuddin Abdul-Maqsud, *Al-Beeah wal Insaan* (Cairo: 2nd ed. 1981); Dr Abdul-Majeed an-Najjar, *Qadaya Al-Beeah min Manzur Islami* (Research and Studies center edition: 1999), p. 19–20.
- 6 Rasheed Al-hamad & Muhammad Saeed, *Al-Beeah wa Mushklatiha* (Kuwait: Al-Falah Book-store, 1986), p. 86; Dr Abdul-Majeed an-Najjar, *Qadaya Al-Beeah*, p. 23.
- 7 Ahkam Al-Qur'an (Beirut: Dar a-Fikr), 3:165.
- 8 Narrated by Malik, *Al-Muwatta'*; ash-Shafi'i, *Musnad* (1:324); Ahmad, *musnad* (1:313, 5:326); Al-Hakim, *Al-Mustadrak* (2:66) and he said, "It is authentic in accordance with Muslim standardization of authenticity and adh-Dhahabi approved his judgment"; Al-Bayhaqi, *sunan*, (6:69); ad-Daraqutni (2:77). See also *Majma' az-Zawaed*: (4:204) and *Al-Kitani's Misbah az-zajjah*: (3:48).
- 9 See Al-Bukhari with Ibn Hajar's Commentary: *Fath Al-Bari, Kitab Al-Imaan*, 1:163.
- 10 Muslim, *Saheeh, Kitab Al-Imaan*, 1:163.
- 11 Ibn Hajar, *Fath Al-Bari*, 1:52–53.
- 12 Al-Bukhari, *Saheeh, Kitab Al-Jihad* was Siyar (Hadith number: 2827)
- 13 Al-Bukhari, *Saheeh, Kitab Al-Mazalim*, Bab: *Man Akhaza Al-Ghusn wama Yu'zi an-Nas fi-Tareeq Farama bihi* (Hadith number: 2340); Muslim, *Saheeh* (Hadith number: 1914)
- 14 Ibn Majah, *Kitab Al-Adab*, Bab: *Imatad Al-Adha'an at-tareeq* (Hadith number: 3682).
- 15 Muslim, *Saheeh* (Hadith number: 8); Abu Dawud, *Sunan* (Hadith number: 4695); Ibn Mandah, *Kitab Al-Imaan*, (Hadith number: 9) and he said: the authenticity of this report is unanimously affirmed; Ahmad, *Musnad*, through an authentic chain of transmission (1:179), and an-Nasa'i through a chain of transmission authenticated by Al-Albani, *Saheeh an-Nasa'i* (Hadith number: 5005)
- 16 Muslim, *Saheeh* (Hadith number: 10)
- 17 Ibn Kathir, *Tafseer Al-Qur'an Al-Azeem*, 6:356; Al-Haythami, *Majma' az-Zawaed*, on the authority of Ibn 'Abbas: 1: 44; Al-Haythami said, the chain of transmission has Shahr Ibn Hawshab, a dubious source. Al-Bayhaqi also narrated it in the wording: «to work sincerely...» and judged it as in line with Muslim standards of transmission.
- 18 Muslim, *Saheeh* (Hadith number: 1955); Abu Dawud (Hadith number: 2815)
- 19 Al-Bukhari, *Saheeh, Kitab Al-Muzara'ah*, Bab: *Fadl az-Zar' wal Ghars* (Hadith number: 2195); Muslim, *Saheeh, Kitab Al-Musaqah*, Bab: *Fadl Al-Ghars was-Zar'*.
- 20 Al-Baghawi, *Sharh Kitab as-Sunnah, Kitab az-Zakah*, 3:186.
- 21 At-Tirmishi, on the authority of Jabir (Hadith 1379), and he said: It is Good and Authentic; Abu Dawud, *Sunan, Kitab Al-Kharaj*, Bab: *Ihya' Al-Mawat* (Hadith: 3037); Ahmad, *Musnad* (Hadith: 1434); Al-Bukhari reported it from the statement of 'Umar (Hadith: 2335). Ibn Daqeeq Al-'Id (Al-Iqtarah: 96) and Al-Ayni ('Umdat Al-Qari: 12:246) classified it as authentic.
- 22 Ahmad, *Musnad*, and Al-Bukhari, *Al-Adab Al-Mufrad*. Al-Haythami said, the transmitters thereof are highly truthful and praiseworthy. See Al-haythami, *Majma' az-Zawaed*, 4:66; Al-Abani, *Saheeh Al-Jami'* (Hadith: 1424), *saheeh Al-Adab Al-Mufrad*, (Hadith: 371). Al-Abani also classified it as authentic in line with Muslim standards of authenticity, see *as-silsilah as-Saheehah* (Hadith: 9).
- 23 Narrated by Ahmad, Ibn Majah, and an-Nasa'i. Al-Hafiz Al-'Iraqi classified it as authentic, see *Tarh at-Tathreeb*, 2:30; Al-Albani also said, it is good and authentic, see *Saheeh an-Nasa'i* (221) and *Saheeh Ibn Majah* (279).
- 24 At-Tabarani, *Al-Mu'jam Al-Kabeer*, (Hadith: 3051) and Al-Albani classified is as Good, see *Saheeh Al-Jami'* (Hadith: 5923)
- 25 Muslim, *Saheeh*, *Kitab Al-Birr*, Bab: *Fadl Izalat Al-Aza'an at-Tareeq* (Hadith: 2618).

- 26 Al-Bukhari, *Saheeh, Bab: Kans Al-Masajid wa iltiqat Al-Khiraq wal Qadha wal 'Idan*, (Hadith: 446); Muslim, *Saheeh* (Hadith: 956).
- 27 Muslim, *Saheeh* (Hadith: 553)
- 28 Ahmad, *Musnad* (12:23); the editor sheikh Ahmad Shakir said, its chain of transmission is authentic, and Al-Albani said that its chain of transmission is good, see *as-Silsilah as-Saheehah*, 7:860 (Hadith: 3292)
- 29 At-Tabarani, *Al-Mu'jam Al-Kabeer* (Hadith: 3051) and Al-Albani classified is as Good, see *Saheeh Al-Jami'* (Hadith: 5923)
- 30 Ahmad and Ibn Majah, see *Nayl Al-Awtar*, 9:153
- 31 Al-Bayhaqi, *Al-Sunan as-Sagheer*: 3:378; Ibn katheer (Irshad Al-Faqeeh: 2:320) said: A statement to this effect has been narrated from Abu Bakr through various ways of transmission. Ibn Hajar (Al-Isabah: 3:80) judged it as good. See *Nayl Al-Awtar*, 8:74.
- 32 Al-Bayhaqi, *Al-Sunan Al-Kubra*, 9:91; Ibn Asaker, *Tareekh Dimashq*, 2:9, who add: Do not demolish any building!
- 33 See, e.g., the authentic collections of Al-Bukhar and Muslim and the Four Books of Sunan where independent parts and chapters have been devoted to these issues.
- 34 See, e.g., Al-Mustasfa, p. 251; Al-Mahsul, 2/2/220; ash-Shatibi, *Al-Muwafaqat*, 1:38; Ibn Ashur, Al-Maqasid, ed. Dr. Ibn Al-Khuja, 2:27; ar-Raysuni, *Nazariyyat Al-Maqasid 'inda Al-Imam ash-Shatibi*.
- 35 For more information, see 'Abdul-Qadir 'Auda, *at-Tashree' Al-Jina'i fil Islam* (Cairo: Dar at-Turath), 2:632.
- 36 See, e.g., *Al-Qamoos Al-Mueet, Lisan Al-Arab*, and *Al-Mu'jam Al-Waseet* (entry: *fasada*)
- 37 *Al-Mufradat fi Ghareeb Al-Qur'an*, 379.
- 38 See *Al-Mu'jam Al-Mufahras* (entries: *fasada* and *salaha*).
- 39 See *Mu'jam Alfaz as-Sunnah an-Nabawiyyah* (entries: *fasada* and *salaha*).
- 40 *Kitab Al-'Uqubat Al-Ilahiyyah*, p. 178–179.
- 41 *Ibid*: 69.
- 42 See, e.g., *Al-Qamoos Al-Muheet, Lisan Al-Arab*, and *Al-Mu'jam Al-Waseet* (*salaha* entry)
- 43 *Al-Mufradat fi Ghareeb Al-Qur'an*, p. 284.
- 44 See, e.g., *Al-Qamoos Al-Muheet, Lisan Al-Arab*, and *Al-Mu'jam Al-Waseet* (*hasana* entry)
- 45 Refer to *Mu'jam Alfaz as-Sunnah an-Nabawiyyah; Al-mufradat*, pp. 118–119 (entry: *hasana*).
- 46 Al-Bukhari with Ibn Hajar's commentary: Fathul-Bari, 1:114; Muslim, *Saheeh*, 1:40; Ahmad, 1:27,51,52; 2:107,436;4:139,164.
- 47 For more information, see Sheikh Al-Qaradawi's remarkable book: *Dawr Al-Qiyam wal Akhlaq fi Al-Iqtisad Al-Islami* (Cairo: Wahbah Bookstore, 1415), pp. 151–152.
- 48 Muslim, *Saheeh* (Hadith number: 1955)
- 49 Al-Bayhaqi, *Shu'ab Al-imaan*, on the authority of aishah. Al-Albani deemed it good in *Saheeh Al-Jami' as-Sagheer* (1880).
- 50 Al-Bayhaqi, *Shu'ab Al-imaan*, on the authority of aishah. Al-Albani deemed it good in *Saheeh Al-Jami' as-Sagheer* (1891).
- 51 Muslim, *Saheeh* (Hadith number: 8); Abu Dawud, *Sunan* (Hadith number: 4695); Ibn Mandah, *Kitab Al-Imaan* (Hadith number; 9) and he said: the authenticity of this report is unanimously affirmed; Ahmad, *Musnad*, through an authentic chain of transmission (1:179), and an-Nasa'i through a chain of transmission authenticated by Al-Albani, *Saheeh an-Nasa'i* (Hadith number: 5005)
- 52 Muslim, *Saheeh* (Hadith number: 10)
- 53 Ibn Katheer, *Tafseer Al-Qur'an Al-'Azeem*, 6:356; Al-Haythami, *Majma' az-Zawaed*, on the authority of Ibn 'Abbas: 1: 44; Al-Haythami said, the chain of transmission has Shahr Ibn Hawshab, a dubious source. Al-Bayhaqi also narrated it in the wording: «to work sincerely...» and judged it as in line with Muslim standards of transmission.
- 54 Al-Isfahani, *Al-Mufradat*.
- 55 Dr ar-Raysuni, research on Medical Ethics presented to the first symposium organized by CILE, p. 9.
- 56 Al-Bayhaqi, *Shu'ab Al-Imaan*, 5:63.

- 57 Al-Mundhiri, *at-Targheeb wat-Tarheeb*, 4:150.
- 58 See, e.g., Al-Qamoos Al-Mueet and Lisan Al-Arab (entry: *waqa*)
- 59 Fareed Wajdi, *See Al-Mu'jam Alfaz Al-Qur'an Al-kareem and Mu'jam Alfaz as-sunnah*.
- 60 Narrated by at-Tirmidhi.
- 61 Ibn Asakir, *Tareekh Dimashq*, 70:252; Abu Nu'yam, *Hilyat Al-Awliyyaa*: (Biography of 'Umar), Ibn Hajar, *at-Taqreeb*, p. 304.
- 62 *Uyun Al-Anba fi Tabaqat Al-Atibba* (Beirut: 1965), p. 45; see also Dr. Muhammad Ali Al-Bar, *Ibid*: p. 3.
- 63 See, e.g., *Al-Qamoos Al-Muheet*, *Lisan Al-Arab*, and *Al-Mu'jam Al-Waseet* (*rahima* entry)
- 64 Narrated by Ahmad and at-Tirmidhi through an authentic chain of transmission (Hadith: 1924); Abu Dawud (Hadith: 4902). In *Mukhtasar Al-Maqasid Al-Hadith* (84), az-Zarqani said: it is authentic Hadith and so did Al-Albani in the authentic collection of at-Tirmidhi (Hadith: 1924).
- 65 Al-Bukhari, *Saheeh*, (Hadith: 6011); Muslim (Hadith: 2999)
- 66 Al-Bukhari, *Saheeh & Al-Adab Al-Mufrad*, *Bab: Rahmat an-Nas wal Baha'im*, see also the commentary of *Fath Al-Bari*.
- 67 *l'lam Al-Muwaqqi'een*, 3:3.
- 68 Ad-Dahlawi, *Hujjat Allah Al-Balighah*, 1:191–194; Abdurrahman Habannakah Al-Maydani, *Al-Akhlaq Al-Islamiyyah*, 1:517.
- 69 Al-Bukhari and fath Al-Bari, 10:375; Muslim, *Saheeh* (Hadith: 2165)
- 70 Muslim, *Saheeh* (Hadith: 2593)
- 71 See Books of Hadiths and Abu Dawud, *Sunan, kitab Al-Adab, Bab: Qat' as-Sidr* (Hadith: 5239).
- 72 Dr. Abdul-Majeed an-Najjar, *Qadaya Al-Beeh min Manzur Islami*. P. 119.
- 73 Dr. Ali Al-Qaradaghi, *Al-Muqaddimah fi Al-Mal wal Milkiyyah wal Iqtisaaad* (Jordan: Dar Al-Basha'ir Al-Islamiyyah), p. 29 ff.
- 74 For more information, see Abdul-Qadir Auda, *at-Tashree' Al-Jina'i fi Al-Isam*.
- 75 Dr Abdul-Majeed an-Najjar, *Qadaya Al-Beeh*, p. 221–232.
- 76 Narrated by Al-Khateeb and Al-Hafizh ar-Rahawi, from whom As-Subki reported it in his *Tabaqat* (1:6) as follows «Every respectable matter that begins without *bismillah ar-rahman ar-raheem* is devoid of blessing». However, it is a weak report as Al-Albani said in *Al-Irwa* (1:29). Imam Ahmad also reported it as follows: «Every respectable matter that begins without God's mention...», see Ahmad, *Musnad*, 2:359.
- 77 Dr. Abdul-Majeed an-Najjar, *Qadaya Al-Beeh min Manzur Islami*. P. 233.
- 78 At-Taftazani, *Sharh Al-Aqeedah*, p. 7.
- 79 Narrated by Al-Bukhari and Muslim, see *Saheeh Al-Bukhari* and its commentary: *Fath Al-Bari*, *Kitab Al-Jihad*, 6:58.
- 80 See *Saheeh Al-Bukhari* and its commentary: *Fath Al-Bari*, 4:191–193; Muslim, (Hadith: 1159); *an-Nasa'i*, 4:209–215.
- 81 See *Saheeh Al-Bukhari* and its commentary: *Fath Al-Bari*, 4:182–184; 10:443.
- 82 Narrated by Malik, *Al-Muwatta*; ash-Shafi'i, *Musnad* (1:324); Ahmad, *musnad* (1:313, 5:326); Al-Hakim, *Al-Mustadrak*, (2:66) and he said, "It is authentic in accordance with Muslim standardization of authenticity and adh-Dhahabi approved his judgment"; Al-Bayhaqi, *sunan*, (6:69); ad-Daraqutni (2:77). See also *Majma' az-Zawaed*: (4:204) and *Al-Kitani's Misbah az-zajjah*: (3:48).
- 83 The Magazine of the Islamic Fiqh Academy, issue: 10, 2:451 ff.
- 84 Ar-Razi, *at-Tafseer Al-Kabeer* (Beirut: Dar Ihya' at-Turath Al-Arabi, 11:48–50); Ibn Attiyyah, *Al-Muharrar Al-Wajeez* (Qatar: 4:232, 11:453)
- 85 At-Tabari, *Jami' Al-Bayan*, 2:317–318.
- 86 Yusuf Al-Qaradwi, *as-Sunnah Masdaran lil Ma'rifah wal Hadarah*, p. 174.
- 87 Narrated by the Four Collectors of *Sunan*, see Al-Qaradawi, *Ibid*: 175.
- 88 Abu Dawud, *Sunan, kitab Al-Adab, Bab: Qat' as-Sidr* (Hadith: 5239)
- 89 See Books of Hadith and Sunnah, and refer to Al-Qaradawi, *ibid*: p. 172.
- 90 Dr. Da'eed Al-Haffar, *Bee'ah min Ajl Al-Baqaa'* (Diha: Dar ath-Thaqafah).
- 91 Wikipedia Encyclopedia; Dr. Ahmad Mileeji, *at-Tawazun Al-Beei bayn Al-'Ilm wal-Imaan* (Dubai International Holy Qur'an Award)

- 92 See the website of Adul-DaemAl-Kaheel, as quoted from Hehner, B.E Blue Planet (Harcourt, 1997)
- 93 See, *Al-Qur'an Al-Kareem and Al-Fizyaa Al-Hadeetha*, and Islamic Encyclopedia website, article by Eng. Ibraheem 'Ubar, April 16, 2013.
- 94 See (<http://www.hadielislam.com>), a research by Dr. Zaghlul an-Najjar on the Scientific Miracle of Earth Balance.
- 95 See the Scholarly Encyclopedia, Ecological Balance Article.
- 96 Ibid.
- 97 See, his research paper on the website of the International Commission on Scientific Signs in the Qur'an.
- 98 Ar-Razi, *at-Tafseer Al-Kabeer* (Dar Ihyaa at-Turath Al-'Arabi), 21:124–125.
- 99 For more information, see *Al-Mawsu'ah Al-'Arabiyyah Al-'Alamiyyah*, ^(148/3, 51/41); Al-Audan et al., *Madkhal ila Al-'lum Al-Beeiyyah*, p. 258; Dr. Abdul-Badee' Zalali, *Ahammiyyat at-Tanwa' Al-Bee'i*, a research paper on the website of the International Commission on Scientific Signs in the Qur'an and Sunnah.
- 100 Ibid., see also articles on [www. Beezah.com](http://www.Beezah.com).
- 101 See the article: "Ecological Balance" on the following website: Allaa Bayoumi Online.

Comments on the Research:
“Sharia-set Objectives as a Framework for Addressing
Contemporary Environmental Challenges:
The Ethical Governing Rules”
Integral Ecology

Franz-Theo Gottwald
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Outline

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Chapter One: **An Integral Approach to Environmental Issues** **(Integral Ecology) – A Meta-Ethical Framework**

There are numerous approaches and theories about the environment and ecology. Currently, more than 200 perspectives have been identified that provide answers and solutions to different aspects of the global environmental crisis and respective ecological processes and environmental dynamics.¹ Each of these approaches provides important insight into certain fields of ecology, but often remain silent concerning other important dimensions.²

Integral ecology was established to provide a science-based holistic approach for clustering the different individual perspectives and their ethics. Its aim is to find solutions to contemporary issues in light of interdisciplinary, multidisciplinary, and transdisciplinary mental models. Its focus is the attempt of uniting and integrating insights from multiple paradigms into a comprehensive and holistic theoretical framework.³ Simultaneously, it serves also as a meta-ethical framework, especially useful for comparing different ethical or religious approaches to human environmental behavior.

In order to reach a holistic and broad understanding of ecological approaches and solutions to environmental problems, Integral Ecology applies the integral theory developed by Ken Wilber and other contemporary scholars from different disciplines. They conceived and advanced an AQAL model (All Quadrants – All Levels) that is currently used in more than 35

professional disciplines and helps reorganize specific knowledge and identify new relations in knowledge systems and their related human cognitive as well as ethical behavior.⁴ It comprises four irreducible perspectives (objective, interobjective, subjective, and intersubjective), which must be taken into account in order to understand and solve specific problems in environmental ethics related to human collective behavior on earth.⁵ These perspectives are represented by the interior and exterior of individual and collective realities:

<p>I</p> <p>Intentional (Subjective)</p> <p>Thoughts, emotions, memories, states of mind, perceptions, and immediate sensations</p>	<p>It</p> <p>Behavioral (Objective)</p> <p>Material body (including brain) and anything that you can see or touch (or observe scientifically) in time and space</p>
<p>We</p> <p>Cultural (Intersubjective)</p> <p>Shared values meanings, language, relationships, and cultural background</p>	<p>Its</p> <p>Social (Interobjective)</p> <p>Systems, networks, technology, government</p>

These four categories not only apply to human beings, but can be applied to all living organisms. Given that this essay is designed as a comment on Qur'an environmental core values and principles elaborated by Sheik Ali al-Qaradaghi, the four perspectives are explained in relation to human beings, their ethics, and environmental behavior.

The intentional category of intersubjective awareness

embraces all conscious processes like thoughts, beliefs, conditions, emotions, and memories. The cultural perspective (WE) defines the cultural relationship of humans structuring the inner as well as the intercultural memes. It inherits shared values, meanings, languages, ideologies, worldviews, and religious systems. The intentional and cultural categories are of great importance for ecological solutions. Integral ecology advocates the perspective that organisms have a subject and an intersubjective dimension. It describes how the internal states and developments of I and WE determine the relationship between human and nature. Until now, ecologists have not paid much attention to the importance of individual awareness and cultural collective dimensions in safeguarding environmental well-being.

The behavioral perspectives, that is, the objective observation of behavior and physical effects, play a leading and dominating (IT) role in approaching environmental challenges. The main focus of most ethics is to address better or more balanced behavior in time and space. Thus, a large number of end-of-the-pipe-technologies for environmental improvement have been developed. Furthermore, social human relationships as part of a certain legal or administrative system shape ecological models of behavior. Economic variables and political dynamics are paramount in determining and shaping processes and behavior on a systemic preformative basis, thus organizing specific behaviors.

Taking all these together, Integral Ecology provides the heuristics for framing different methods of environmental studies as well as individual or collective behaviors. It simultaneously allows for facilitating inter- and transdisciplinary analyses of complex and controversial debates on environmental issues within and between different cultural or religious backgrounds.

Chapter Two: Integral Ecology and Sharia Environmental Objectives – Definition and Understanding

In this chapter, using this meta-ethical, interculturally valid, and resilient approach, we will model Sheik al-Qaradaghi's ethical statements on Sharia-set objectives to address contemporary environmental challenges. Thus, we will demonstrate our understanding of the Islamic belief system and simultaneously document its closeness to modern approaches of environmental ethics.

1. Subjective – Individual Person and Behavior (I)

A firm belief in God is the foremost requirement for keeping the environment safe and free from any contamination. Three components are required: worship of God, fear of God (*taqwa*), and work for God.⁶ The first one assures that all good deeds are directed at God and show adherence to religious rituals. Fearing God enables a believer to observe God's rules carefully and to act righteously. A human neither believing in God nor fearing Him will transgress on this earth.⁷ The third component "to work for God" affirms the general meaning of worship and endeavors to do the best work in order to reach perfection, high standards, and creativeness. All three components are contained in the Islamic principle of *ihsaan*. The Arabic word is derived from *ahsana* (i.e. to do what is good). *Ahsana* refers not only to doing good deeds for others, but also doing good for one's own self. Consequently *ihsaan* can be summarized as: to worship God sincerely as if you see Him, even if you do not see Him, He surely sees you.⁸ Therefore, the principle of *ihsaan* leads to perfectibility.

In order to treat nature with care and respect, self-reforma-

tion and self-observation are important aspects. An essential component of the Islamic faith is the purification of the soul. Humans should purify and clean themselves of evil and vices. The foremost precondition in purifying the soul is belief in and worship of God. Furthermore, self-reflection and self-reformation are necessary for reforming the environment. In Arabic, reform refers to *islaah*. It is defined as the process of removing all that could corrupt, and by doing everything good and useful. *Islaah* refers to the physical side by reforming the environment as well as the spiritual side of human development through a firm belief in Islam. In the process of purification, *ihsaan* and *taqwa* play a significant role. They help man to control his powerful desires and to restrain him or her from wrongdoing. Only human beings with a balanced soul are able to preserve and safeguard their surroundings.

2. Intersubjectivity – Human Social World and Social Nature (WE)

The universe was created for human use, sustenance, and happiness. The environment is an embodiment of good. It functions for the interests and advantages of mankind. Humans and earth cannot be considered separate from each other. Man is created from water and dust, and therefore Islam regards the environment as the Mother of Humanity.⁹

The earth was created for all creatures on this earth, including humankind, animals, and other types of organisms. Man alone has been entrusted with stewardship (*khilaafah*) for this earth. This position enjoins humans to govern, reform, and build this world in justice and fairness. It is therefore man's duty to maintain this world in balance and harmony as God created it.

Muslims believe that the environment is the creation of

God and therefore humans have to pay their respects and feel responsible for it. Islam expects Muslims to thank God for the creation of animals and nature and to exert the utmost diligence to keep all safe.

Islamic sources are aware that humans misuse the task to govern over the world. Man commits mischief on earth through grave sins and crimes such as disbelief, murder, oppression, aggression, adultery, indecency, drinking of alcohol, drug addiction, and through harmful practices against the environment.¹⁰ These are common vices among oppressors, the arrogant, tyrants, and hypocrites.

Moral behavior and good manners grounded in the Islamic belief system constitute the fundamentals and the essence of the Islamic faith. It is a duty to treat animals, insects, and other organisms with care and respect and to avoid any form of abuse and harm. Muslims should express compassion, care and concern, sympathy, and empathy for the suffering of others coupled with the wish to share in their distress. Moral cultural concepts like goodness, righteousness, justice, piety, mercy, lenience, and truth are part of Islamic ethics. Conversely, Islamic ethics condemn bad relations toward other life forms like extravagance, squandering, wasting money, prodigality, and excessiveness. Good deeds shown to other living beings and nature are highly rewarded in Islam. Consequently, bad deeds are highly punishable either in form of the enforcement of Sharia law or in the afterlife.

3. Behavior of Natural Organisms, Life Forms and Matter (IT)

Islamic sources reveal a comprehensive and broad understanding of the laws of the entire universe and all contained in it. They deal with physical elements of the ecology such as solid,

liquid, various gases, and natural powers as well as urbanism, animals, and plants.¹¹ Further, scientific facts about inanimate components such as the sun, planets, stars, mountains, and rain are included in the Qur'an.¹²

The creation of the universe and what is within it is an indication and proof of the existence of God, His Omniscience, Absolute Will, Omnipotence, and other Divine attributes. The creation of the world leads to God, as God is neither a creator nor worthy of worship without His creation. The IT of nature, the environment, the ecology and all life forms, the universe, and earth have been created in perfect balance and delicate precision. God assigned specific roles and tasks to each element on this earth. Everything in this world is purposefully beneficial and full of wisdom and nothing in time and space is created in vain.

Any forms of imbalance in nature occur due to human actions. Man's intervention with the introduction of new technologies such as providing irrigation to dry areas or taking out some ecological elements such as clear-cutting forests, cause an ecological imbalance. Islamic sources recommend humans to upholding ecological balance by maintaining elements, diverse components, and organisms of the ecosystem at their natural state. This can be in the form of cultivating trees, crops, and plants to create biodiversity.¹³ The preservation and good animal husbandry is also necessary to preserve an ecological balance. Islamic teachings recommend the cultivation of different types of crops as an ecological plant protection method. Furthermore, soil fertility should be increased to resist drought, plant diseases, and temperature variations and protect underground water supplies.¹⁴ The Qur'an also recommends planting crops and plants as windbreaks and protection against soil erosion and desertification.

4. Interobjective – Government and Revealed Legal System (ITS)

The Islamic religion encompasses a holistic and broad legal system – the Sharia. The objectives of Sharia (*maqasid*) aim to protect and safeguard Islamic religion, human life, and the entire universe. Legal scholars identify six to eight objectives of Sharia¹⁵ for preserving national security, which equally applies to political, social, economic, and ecological security or safeguarding the security of governments.¹⁶

Many objectives of Sharia aim at the protection and reformation of the environment as well as warding off aggressive actions against it. The objectives of Sharia can only be accomplished through a consideration of the environment as a complex system, an essential matter, and a necessity for a qualitative human life.

In order to prevent humans from endangering national security and the environment through corrupt practices, harmful actions, abuse, and mischief, Islamic law contains very strict and painful penalties. These are subject to international, national, and regional legislation and laws. Islamic law also focuses on reforming behaviors through education, training, and continuous discipline as well as teaching high virtues and noble morals.¹⁷ Raising religious awareness is regarded as an important mechanism to safeguard nature.

Chapter Three: Key Aspects of Environmental, Agricultural, and Food Ethics

When considering the actual socio-political developments and their relationship to environmental changes (i.e. climate change, soil degradation, water scarcity, and food security),

there are some key aspects, which will be discussed in the following subchapters. An integral ecology perspective helps in selecting these according to the requirements of the second decade of the 21st century. In addition to their factual relevance, they have been chosen because they permit drawing many parallels to the Sharia-set objectives. Finally, they fit into a multistakeholder global dialog based on a number of political, cultural, and religious backgrounds.

With respect to Chapter 2, the role of the individual person and his or her inner mind set and external behavior will be highlighted in the following subchapter on sustainable lifestyles, environmental awareness, eco-literacy, and personal consumption patterns.

After a description of the subjective, personal, or ego perspective (I), the following two chapters on stewardship and the role of women in agriculture as well as in working for the preservation of a healthy environment are written in keeping with tenets of cultural intersubjectivity, human social world, and social nature – the WE-Perspective of integral ecology.

Third, use of natural resources and minimizing suffering are two subchapters focusing on the behavior of natural organisms as well as toward different life forms (the IT perspective).

Finally, the interobjective perspective will explain the principles of justice, responsibility, prevention, and biodiversity as a normative measure for future developments on the planet (ITS perspective), which could be shared transculturally on a common legislative basis.

1. Environmental Awareness and Sustainable Lifestyle

The Islamic religion provides Muslims with a comprehensive ethical system. The foremost characteristics of Islamic ethics are the advice of harboring good intentions and doing good as

well as the prohibition of bad intentions or actions. Intentions and actions should always be devoted to the worship of and obedience to God. It is this particular sincerity that frees one's intentions from impurities and strengthens the soul.¹⁸ In order to be rewarded for a good deed from God, intentions need to be sound and sincere.¹⁹ Even though Muslims have access to a methodology and understanding of morals and values, there is a gap between theory and practice.

From an Islamic perspective, the reason for this gap can be traced back to an unbalanced soul. Muslim scholars have identified different components of the human soul. If one of these components outweighs the others, which are thus repressed, the internal state of an individual is in imbalance. Therefore, Islamic sources emphasize the constant process of purifying the soul. Only an individual with a purified soul can act ethically. At the same time, good deeds are an important mechanism in purifying the soul. Therefore, Islamic ethics and the purification of the soul are mutually interdependent.

Even though people in Western countries are highly aware of questions concerning the environment, there is still a gap between environmental awareness and knowledge and their transformation into concrete actions. However, environmental awareness constitutes the basis for environmentally appropriate behavior. The following ethical principles and moral maxims constitute the foundation for a just and fair treatment of the environment: moderation, longevity, durability, caution, responsibility for creation, and integrity.²⁰

Ecological awareness and a sustainable lifestyle are based on the voluntary commitment to safeguard the social and natural world, and to do as little harm as possible.

It appears that a sustainable lifestyle not only results from the intention to treat nature with care and compassion, other

motives play an even more essential role. One of these motives is the desire for a healthy life. Environmental awareness expresses itself through environmental actions by preventing hazards to human health. Information about water or food contamination mobilizes consumers to change their consumption behaviors. This change of behavior is usually beneficial to the environment as well. Furthermore, the motive to protect the earth for future generations can be an important tool in safeguarding environmental resources.

Purchase and consumption decisions in favor of a sustainable lifestyle are closely linked to environmentally just behavior. Environmental awareness is transformed into environmentally friendly behavior, for instance, through ecologically responsible food consumption. Every consumer decision in favor of organic food, for example, contributes to health and the preservation of nature.

Another motive for shifting to such a sustainable lifestyle can be found concerning quality-of-life issues. Ecologically responsible behavior is enhanced if nature is not just regarded as a basic condition for human existence, but as guarantor or medium for happiness, love of life, and harmony.

Research in the field of environmental psychology concerning motivations for changes in lifestyle toward a less consumption-oriented and more sustainable way of life has shown that contrary to motivation aligned with positive principles, values, or moral maxims, deficiency motivations rarely lead to environmentally correct behaviors. If fear of climate change, energy shortages, food supply shortages, fear of contaminated water, or similar deficits were the only motivators encouraging people to live more environmentally correct lives, the success rate would be much lower than that if their actions are guided by an environmental awareness that sees

the environment not just as another looming threat or itself threatened. Environmental actions or environmentally correct lifestyles therefore are not deficiency, but positively motivated. Deficiency-motivated action proves more prone to recidivism toward greed and environmentally harmful ways than positively motivated, earth-friendly actions. This means that eco-friendly conduct is based on an understanding for nature and the entire world, and regards the entire world as a source of happiness, contentment, and satisfaction and thus a reason for an eco-friendly and mindful way of life in awe of the beauty and richness of life. It is easier to uphold beauty and richness than overcoming scarcity. Whenever positive motivation is lacking, the gap between environmental knowledge and environmental actions widens. However, if a population shows little willingness toward adopting a sustainable lifestyle, environmental ethics will have to be converted into environmental law.

As argued, there exists a gap between awareness and actions. Therefore, it is essential to introduce conditions of reinforcement such as sanctions or fees, for example, for waste management and recycling. Reinforcement conditions are most effective with people who are distinctly and consciously aware of ecological well-being.

2. Stewardship

From an Islamic perspective, God made man the vice-regent or trustee (*khalifah*) on this earth. This task does not imply that humans can govern over the world without rules and obligations. On the contrary, man has the duty to carry out God's commands for the welfare of all mankind and creatures. Thereby humans ought to govern with mercy, fairness, and justice.

Following an applied integral ethical approach, the val-

ue-based declaration of fundamental ethical principles of the Earth Charter Initiative serves as a sound cultural guideline to orientate human stewardship toward all life forms and the environment. The Initiative was founded by the United Nations and advanced by civil society. The Earth Charter, launched in 2000, is concerned with ecological integrity and the cultural shift toward sustainable ways of living. The Charter condenses the ideals and values of many people in the world along the lines of an integrated ethical framework in order to protect the environment, combat poverty, establish social and economic justice, and promote democracy and peace as an obligation of collective action. It empowers the WE-dimension of a sustainable lifestyle globally, which is “founded on respect for nature, universal human rights, economic justice and a culture of peace.”²¹ The Earth Charter at the same time describes what stewardship can really mean.

The Earth is designated as home, and the preservation of a healthy biosphere, resources, and biodiversity is perceived as moral obligation of every human being as well as a collective duty. In this context, the preamble states that humans must resolve to live with a sense of “universal responsibility”,²² identifying themselves with the “whole Earth community”.

The Charter contains four major principles:

- *Respect and care for the community of life*

The Earth is understood as community. Life in its diversity should be recognized and respected regardless of its utility, usability, or value to human beings. Natural resources are common goods; their protection is a moral obligation to ensure survival of future generations. Social sustainability can be ensured by fostering freedom and democratic structures within societies and communities based on common goods.

- *Ecological integrity*

The second principle comprises the protection and recreation of ecological integrity. Natural processes, biodiversity, and biospheres must be maintained to ensure life-sustaining processes. Wild habitats, forests, grasslands, and the marine environment must be protected as intact ecosystems. In case of limited knowledge or lack of scientific evidence, the precautionary principle should be applied. Production and consumption processes should be based on the reduction of input and emissions, resource protection, renewable energy sources, and recycling methods. This principle seems to help understand what Islamic command means, to reform what is naturally given on earth. Reformers have to take measures along lines of ecological integrity.

- *Social and economic justice*

The eradication of poverty is stated as an ethical, social, cultural, and environmental imperative within the third principle. It comprises the “right to potable water, clean air, food security, uncontaminated soil, shelter, and safe sanitation, allocating the national and international resources required.”²³ All economic activities should promote sustainable development on the globe as a whole and the equitable distribution of wealth within and among nations. The Charter also claims the affirmation of gender equality. Every individual should have access to education, health care, and economic perspectives regardless of his/her gender, spiritual or religious beliefs, sexual orientation, or ethnical background. There seems to be no difference at all with the Islamic law.

- *Democracy, nonviolence, and peace*

The fourth principle aims at the reinforcement of dem-

ocratic structures and institutions. This includes the implementation of transparency, the support of participation, and the protection of human rights such as freedom of opinion, expression, peaceful assembly, association, and dissent.

The promotion of a culture of tolerance, nonviolence, and peace is interconnected with this principle. Furthermore, the importance of education and life-long learning, especially in relation to ecological awareness, are of great weight here. Ecological literacy is one major field of education. Especially by education in the Sharia aspect of stewardship, an adaptation to Islamic cultures of this principle of the Earth Charter could be promoted.

The Earth Charter and its four basic principles based on values shared by many people on this globe provide an applicable ethical approach for human stewardship toward nature. It might be worthwhile to elaborate on the concept of stewardship to understand the Sharia aspects contained in it as well as to stress the modernity, the role model for ecological behavior and sustainable lifestyles implicit in stewardship. One aspect of stewardship is a protective one, for instance, in defending life forms from threatening extinction. Another aspect of living stewardship is accepting the role of advocacy. It is clear that most of the life forms on earth do not have a voice, thus humans have to act as advocates for them. Many NGOs function as advocates. Therefore, it is imperative that advocacy be anchored firmly in every national legal system.

Another aspect of stewardship is custodianship. Many NGOs feel obliged to act as guardians for natural sites, hotspots of biodiversity, and ecologically endangered species. In the end, all of these different aspects of stewardship have to be broken down into concrete, socially and economically grounded mea-

asures. Measures like the ecological footprint, the ecological backpack, and material intensity per service unit have to be applied for obtaining definite proof of what makes up a good Khalifa in the 21st century. It seems not too difficult to make use of these measurements. One would be able to build practical bridges for the Islamic movements for conservation, preservation, defense, and protection of the environment. These might lead to a modern culture-based set of adaptations. A basis for legislation in favor of stewardship in its different aspects could be established.

3. Women in Rural Areas

Islam provides a holistic and comprehensive moral system, in which values and norms that build the foundation of internal processes and behavior in a society are embedded. It therefore shapes the subjective and intersubjective dimensions of individual behavior. Virtues like righteousness, justice, equality, piety, and mercy build the guiding principle of human interaction with their social world as well as the natural environment.

All of these virtues inseparably apply to men and woman equally. Thus, every person should have access to food, water, and resources to obtain a good standard of living. Numerous verses and *Ahadith* (a collection of traditions containing sayings of the prophet Muhammad (pbuh)) command Muslims to give to charity and provide decent living conditions for all.

Nevertheless, more than 70% of the poorest of the poor are women. The reason can be traced back to the economic, social, political, and legal discrimination of women worldwide. In Third World countries, 80% of food commodities are produced by women, but only 10% of these women own their own cropland and only 2% own property rights. The majority of the

work is performed by women, as they take care of the household and children, thus providing the family with food while also working in the field. Islamic legislation on land laws could be examined under this perspective.

According to the world hunger index 2009, discrimination of women and starvation are interconnected.²⁴ Therefore, gender equality and female empowerment are regarded as an important solution for world hunger as well as an acknowledgment of the pivotal role of women in preserving the environment. There is much potential for improvement all over the globe and not only in Arabic countries.

Market and export economy and industrialization are the reason for the loss of social and economic independence of women. Women are forced to work on large plantations; they are poorly paid, suffer under physically demanding work, and are not able to earn enough to support themselves and their families. At the same time, important knowledge is lost about traditional and local cultivation methods, agriculture techniques, and food quality, which has always been in the hands of women.

Educational level and starvation are interconnected as well. High illiteracy rates correspond with high starvation rates. In comparison to men, women have no or scanty access to education,²⁵ although education of women has a greater influence on the level of poverty than the education of men. Hence, improvement of educational chances also results in better living and health conditions. In Islamic societies as well as in many others, legislation must be overhauled to make the legal system more favorable toward women. In the 21st century, slavery must be interdicted and can no longer be tolerated. Literacy for all has to be promoted, especially among women in order to protect their well-being in rural areas for all generations living and future.

There is a major need for working toward gender equality and female empowerment in rural areas all across the globe.

4. Use of Natural Resources

Islam holds that the world was created in perfect order. All forms and matters in this universe interrelate with each other in harmony. In order to maintain balance on earth, the Qur'an established a set of ecological criteria and regulations such as a balance in the use of natural resources, avoidance of ecological abuse, destruction, and wrongful behaviors, as well as abstention from mischief and perilous practices.²⁶ The Qur'an forbids unnecessary overconsumption and overuse of food, water, and resources and any other form of exploitation. It advises a zero-waste economy.

The challenges associated with preserving, managing, and resolving natural resources jeopardize global peace and security in the 21st century.²⁷ Global trends such as demographic changes, increasing consumption, world hunger, environmental degradation, and climate change are placing significant and potentially unsustainable pressures on the availability and usability of natural resources such as land, water, and ecosystems. There is an urgent demand to respond to these challenges and risks with alternative approaches and strategy.

Ethical parameter for environmental balance

There are three different guidelines according to modern environmental philosophy and economics, which offer alternatives for handling natural resources responsibly: *efficiency*, *consistency*, and *sufficiency*.

Efficiency aims at a more efficient use of resources (materials and energy) in the process of manufacturing and distributing products and services. Increased efficiency can be achieved in

various ways: using improved raw materials, introducing new technologies, optimizing organizational processes, or reducing waste through recycling.

The *consistency approach* makes up the second guideline of a sustainability framework. This approach demands an adjustment of innovations in keeping with natural cycles. Even if these criteria are accomplished, the production still uses resources and causes emissions. Therefore, this approach should be complemented with *sufficiency strategies*.

Sufficiency strategies involve voluntary self-limitation regarding growth and consumption, and prefer a slower pace of further acceleration. Sufficiency can be accomplished in various ways: by reducing the consumption of animal products, local cultivation of food items, cooperatives and community-supported agriculture, car-pooling, car sharing, or decentralized energy supply.

Finally, a policy of efficiency, consistency, and sufficiency is needed when dealing with our precious ecosphere, which comprises all organic and inorganic raw materials as well as climate, towns, and rural areas.

The following describes two practical economic approaches, which provide a practical framework for handling resources. They have been tested in different settings worldwide. They have proven themselves to be easily adaptable within Islamic culture and economies, while being rooted in Sharia law.

Cradle to Cradle ®

Raw materials are taken and turned into products, which are sold and then usually end up in waste dumps or incineration plants. In this way, their material value is lost forever.²⁸ Faced with the contemporary challenge of increased losses of natural resources, industries, urban environments, and social systems

need to change immediately. The Cradle-to-Cradle® concept, developed by the German process engineer Michael Braungart and the American architect and author William McDonough, offers a method for cyclical use of resources. It offers an alternative to the present method of production whereby materials become nutrients that move within metabolic cycles and the concept of waste – as we know it – does not exist.²⁹

Cradle-to-Cradle® means a new way of thinking about utilizing material flows. The terms “eco-efficiency” and “eco-efficacy” are important aspects of the concept. The eco-efficiency approach takes into consideration only quantifiable parameters which outline problems to be ameliorated (e.g. greenhouse gas emissions), whereas the eco-efficacy approach additionally factors in qualifying parameters (e.g. the use of carbon dioxide as a nutrient).³⁰

Cradle-to-Cradle® has been adopted in the manufacture of a number of products: there are biodegradable T-shirts, hair sprays safe for drinking, air-freshening, indoor carpeting, recyclable office chairs, and many more.

Blue Economy ®

Sustainable innovations are the backbone of the Blue Economy® approach, which was developed by the futurologist Gunter Pauli who in diverse projects showed practicable ways toward a socio-ecological worthwhile future. In his book, “The Blue Economy – 10 Years, 100 Innovations, 100 Million Jobs,” he describes ways toward environmentally and resource-efficient modes of doing business, while simultaneously creating jobs and preserving the environment by a zero-waste technological approach.

The Blue Economy® vision meets the basic needs of all people with the resources at hand. It stands for a new way

of doing business: a cascade mechanism utilizes available resources, thus turning one product's waste into the base material for new cash flow. This creates jobs, builds up social capital, and increases incomes – while refraining from causing further environmental degradation and harm to our basis of life. This allows for a changeover from an economy where good things are expensive, and bad ones are cheap, toward a system with affordable beneficial and innovative items.³¹

The Blue Economy® concept is based on research done by ZERI (Zero Emissions Research and Initiatives) founded by Pauli in 1994. This network made up of creative minds from around the globe aims at identifying scientific solutions for pressing problems of our times. Their efforts are based on the premise “zero waste cannot be wasted”. ZERI pursues a zero-emissions target, that is, reducing waste and emissions to zero through innovative raw material use and comprehensive utilization of sustainable resources.³²

There are two basic guidelines in the Islamic religion, which might be of help in reorientating economic thinking within Islamic national economies as well as on the level of single companies. The first regulatory principle is the zero-waste doctrine. Wastefulness is a sin and not tolerable within Islamic economies. Positively speaking, Islamic economies should treat the world lightly and use a minimum of natural resources, especially if resources cannot be restored or substituted by other resources.

A second regulatory principle is the one of charity. Charity does have different meanings. In the framework of economic thinking, charity not only means benevolence among the participants of economic transactions, it moreover relates to sharing resources, thus exposing no one to starvation or living in poverty. Given that according to Islamic thinking all actions

are monitored, there is a transcendental reference guiding all economic behavior in accordance with these two principles. It goes without saying that when modernizing Islamic background societies, these principles might be transferred into specific legislation conducive to a more sustainable economic behavior on the level of national economics. It could also apply to individual companies or organizations and their economic performance.

5. Minimizing Suffering

From an Islamic standpoint, man as earth's steward has the obligation to govern this earth with justice and mercy. Therefore, Islam repeatedly enjoins man to treat all animals and organisms with care and compassion. Acting righteously and good toward animals, insects, and plants is highly rewarded in Islam. On the contrary, cruelty, oppression, and other bad deeds toward animals and other life forms in nature are highly punishable. The punishment of hell awaits those who disrespect living organisms.

In industrialized animal husbandry, mercy and respect toward animals are nonexistent. In most industrialized countries, agricultural animals are not considered sentient beings – although it has been scientifically proven that they actually are sentient, that is, in respect to perception of pain and distress. In industrial animal farming, livestock is regarded as a monetary variable that needs to be optimized. The aim of industrial animal husbandry is the production of fast-growing animals that require very less feed and space. Animals are seen as production factors, that is, an expression of a society that has no sense for the value of life and food.

Worldwide 56 billion animals are raised for food annually. This vast number gives an indication of the various ethical

implications: environmental pollution, disposal of liquid manure and dung, use of resources, emissions of climate damaging gases, and health issues.³³ Animal production also involves problems of welfare. Animals, kept for industrial food production, suffer from diseases and impaired health caused by selective breeding. They undergo harmful and invasive procedures such as amputations and castration without anesthesia. They live in controlled environments with little space, unable to express natural behavioral patterns. Because of selective breeding, unnatural group sizes, and boredom, they harm each other (e.g. feather pecking in hens). Modern animal husbandry involves various welfare problems, which also are subject to animal ethics.

In animal ethics, minimizing suffering is a central endeavor. Fraser, Weary, Pajor, and Milligan (1997) state three ethical concerns, which are commonly expressed regarding the quality of life of animals:

1. Animals should lead natural lives through the development and use of their natural adaptations and capabilities;
2. Animals should feel well by being free from prolonged and intense fear, pain, and other negative states, and by experiencing normal pleasures;
3. Animals should function well, in the sense of satisfactory health, growth, and normal functioning of physiological and behavioral systems.³⁴

In practice, industrial animal production is a far cry from these basic ethical principles. However, in Western countries, animal welfare has gained importance in consumer awareness. In the long run, welfare issues will contribute to consumer acceptance and the market success of animal products. Pro-

ducers in Germany and parts of the EU are aware of this public awareness and are working on animal welfare initiatives, standards, and certifications.

Given that Arabic countries import many industrial farming products from Europe, Brazil, Thailand, and other countries where no Islamic laws apply, the question of *halal* farm has to be answered in view of these imported food items. *Halal* should be administered from soil to plate, especially with regard to products of animal origin. The following broader *halal* standards than that applied so far (*halal* is only applied and certified with reference to slaughtering), a gradual shift from only animal production toward consumption patterns, which are empirically not conducive either to human health or to the environment, might be well worth considering.

Poor eco balance

Consumption of meat and animal-derived products continues to increase rapidly every year worldwide. In order to meet the demand, conventional animal husbandry has been hugely industrialized over the past decades. It massively contributes to not only harm to animals but also environmental degradation. Feeding animals requires and devours enormous amounts of land, fodder, water, and energy.

Global animal husbandry uses up to 30% of the entire ice-free surface of the earth. Production of animal proteins devours huge amounts of plant materials. Industrial nations can no longer meet their demand for animal feed. Therefore, the majority of feed is imported. In South America, and especially in Brazil, large swaths of the rain forest have been sacrificed for cattle herding and soy plantations. Forest destruction endangers not only regional structures and unique ecosystems but also world climate.

The meat industry, which uses 8% of this scarce potable water resource, is at the top of world water consumption. However, water consumption is not the only problem; elimination constitutes a bigger problem. A mid-sized fattening farm with 5000 calves annually produces around 10 million liters of liquid manure. A high proportion of these excessive amounts of excrement is spread as fertilizer and from the fields and pastures gets into the ground water and into rivers and streams. This makes meat processing also partly responsible for fish die-off, algal bloom, and approximately a third of acid rain.

Meat processing requires large amounts of energy. In the United States, for example, more than a third of raw materials and fossil fuels are required for raising animals for slaughter. Industrial animal production shows a deplorable life cycle assessment.

A report by the UN Panel for Sustainable Resource Management (part of the United Nations Environment Programme (UNEP)) states that in order to maintain resources and contain the dire consequences of climate change, only a substantial change in alimentation – away from animal-derived products – will offer the estimated 9 trillion people living on the earth in 2050 any hope for a sustainable life.³⁵

Integrative concepts

The manifold, negative ecological, socio-ethical, and health consequences of industrial livestock breeding show that a pioneering and all-inclusive concept for agriculture in general and livestock breeders in particular is urgently needed. Integrative concepts have to weigh the protection of farm workers against product quality, consumer protection, animal breeding, and animal welfare as well as profitability and sustainability. This concept has to address:

- Disease prevention and protection of farmers and their families
- Disease prevention and protection of neighbors and other residents near factory farms
- Consumer protection
- Healthy, resistant, and robust animals
- Healthy, residue-free, and clean foodstuffs
- Sustainable and viable agriculture
- Integrative concepts for sustainable treatment of resources (economy of closed cycles, managed grazing of livestock operations)
- Targeted habitat and environmental protection
- Political frameworks for sustainable and small-scale, regionally adapted agriculture (Greening)

To establish such an integrative concept in the Islamic world, the concepts of balance as well as a detailed concept of possible reforms in the living conditions of different life forms on planet earth in accordance with Sharia might provide useful guidance.

6. Principles of Justice, Responsibility, Precaution, and Biodiversity

Preservation and protection of the environment is strongly embedded in Islamic sources. Hence, certain characteristics and principles are of great importance; thanksgiving to God, justice, mercy, responsibility, lenience, truth, righteousness, and safeguarding biodiversity.

Secular environmental ethical theories identify four essential principles that aim to safeguard human and ecological balance: principles of justice, responsibility, precaution, and biodiversity. These principles should be discussed in an intercultural endeavor in order to clarify their universality.

Principle of justice

Justice constitutes the optimal condition of social cooperation, in which varying interests are equally considered. No one should be discriminated or suffer disadvantages because of origin, gender, race, religious affiliation, or other characteristics. In relation to the environment, the aspect of intragenerational and intergenerational justice is significant. Present generations should be able to meet their needs without compromising the needs of future generations. The principle of justice is therefore interdependent with the concept of sustainability.

This requires, for example, the field of agriculture to safeguard supplies, natural goods, fertile soils, water, and genetic resources of livestock and plants used for farming. However, the current conventional agriculture implements neither this principle of justice nor the principle of sustainability. Natural resources like water and fertile soils are decreasing rapidly and are exploited in an irresponsible manner. Consequently, present generations are jeopardized and future generations will carry the burden of these unconscionable methods of production.

The imperative of responsibility

Responsibility is an essential part of ethical motives and actions. The ethical principle of responsibility appeals to the individual to take responsibility for his/her own self and for his/her immediate social environment.³⁶ Through globalization and development of new technologies, the imperative of responsibility also includes liability for other cultures. In addition, the principle regards responsible actions toward ecological and natural resources as a necessity to enable a safe and healthy life.³⁷ Therefore, the imperative of responsibility cannot be

regarded separately from the principle of intergenerational justice.

The imperative of responsibility constitutes essential guidelines for individual consumption and sustainable lifestyles. It requires individuals to adjust consumption according to available information, awareness, and consideration of products with social and ecological standards,³⁸ in all countries of the world.

Ecological or organic agriculture is a good example for taking comprehensive responsibility for humans, animals, plants, and ecological systems.

Precautionary principle

According to the precautionary principle, harm and damage must be ruled out. The precautionary principle states: “Act so that the effects of your action are compatible with the permanence of genuine human life.” Humans are responsible for assuring a decent living for present and future generation.

It is often argued that a consistent application of the precautionary principle would inhibit any progress.³⁹ After all, there is no risk-free technology, and an entire pre-evaluation of all potential side effects is not possible. However, the precautionary principle does not aim at avoiding all risks. It rather advocates an independent and holistic evaluation process, which considers the entire picture. The assumption that everything in nature is interconnected is vital for ecology and agro ecology.

Ecological agriculture is highly adapted to the precautionary principle. The use of high-risk technology, GMOs, and nanotechnology is not permitted. Furthermore, organic farming opposes veterinary medication for promoting growth and efficiency of livestock.

The principle of diversity

Biological diversity is the key aspect for environmental balance, food and agricultural sustainability.

Biodiversity can be defined as the full range of variety and variability within and among living organisms and the ecological complexes in which they occur. It encompasses ecosystem or community diversity, species diversity, and genetic diversity. It also refers to the diverse and complex interactions of ecological systems and the mutual influence between humans and nature.

For centuries, small-scale family farmers have been maintaining biodiversity through cultivation and breeding worldwide. As a result, diverse plant varieties and animal species emerged adapted to local conditions. In order to accomplish optimal adaptability to the constant environmental changes, new genes need to be regularly crossbred. However, industrial farming caused an extreme extinction of species. Worldwide only five plant species and five farm animal species provide our food supply. Moreover, methods of chemical pest control have fatal consequences for biodiversity.

Especially in light of tackling problems like climate change and global hunger, the maintenance of biodiversity is an essential tool. Genetic resources are the raw materials that local communities and researchers rely upon to improve the quality and output of food production.⁴⁰ It is because of their genetic variability that plants, animals, microorganisms, and invertebrates are able to adapt and survive when their environments change.⁴¹ Maintaining and using a wide range of diversity – among and within species – means maintaining the capacity to respond to future challenges.⁴²

Ethical principles on ecology and international legal enactments

The principles of justice, responsibility, precaution, and biodiversity are subject to European environmental rights and legal enforcements. All over the globe, legal enactments are established or are close to becoming laws. Protection of the environment and sustainable development are policy areas, for example, of the European Union, and numerous initiatives have been developed in the last 40 years.⁴³ These initiatives resulted in legislation, policy papers, and verdicts. For the European Commission, it is therefore a main goal to systematically assess the potential economic, social, and environmental impacts of major new policy and legislative initiatives, and promote the systematic integration of environmental objectives into community policies.⁴⁴ In addition, it ensures the effectiveness of environmental legislation and funding in creating environmental benefits.⁴⁵

Furthermore, the UNEP aims to preserve, protect, and improve the environment. It contributes to the development and implementation of environmental law through its normative work or through the facilitation of intergovernmental platforms for the development of multilateral environmental agreements, principles, and guidelines that aim at addressing the global environmental crisis.⁴⁶

In order to solve environmental challenges on an international level, treaties and legal enforcement are an essential requirement. The Kyoto Protocol represents such a treaty. It is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its parties by setting internationally binding emission reduction targets.⁴⁷

Muslim organizations also represent an important body for

tackling environmental challenges. The Organisation of Islamic Cooperation (OIC) is the second largest intergovernmental organization after the United Nations with a membership of 57 states spread over four continents.⁴⁸ The Organization is the collective voice of the Muslim world and ensures the safeguarding and protection of the interests of the Muslim world in the spirit of promoting international peace and harmony among various people of the world.⁴⁹ The environment is one of the priority topics on the agenda of OIC. The Islamic Conference of Environment Ministers convenes once every 2 years.⁵⁰ At its fourth meeting in Tunisia in 2010, the Conference made a declaration on “Enhancing the Efforts of the Islamic World towards Environment Protection and Sustainable Development” and agreed on promoting cooperation between the Islamic countries on issues pertaining to the environment and sustainable development, within the framework of Islamic solidarity and joint Islamic action.⁵¹

Chapter Four: Propositions for Further Dialog

It seems there is a global consensus on the major environmental problems or major global problems, which will severely affect the future of global life-supporting environments. There is consensus on the climate crisis, the water and food scarcity crisis, the financial and capital market crises, the energy crisis, the demographic crisis in many highly or postindustrialized countries, the resource crisis as well as the many bi- and multinational conflicts and wars, and their destructive influences. It is relatively easy to identify the causes of these crises. There is broad agreement that human behavior, especially in the past

three centuries, created most of these problems.

On the contrary, there are many developments in science and technology promising solutions or part of solutions for one or more of these problems. A new holistic science has come up (quantum physics, quantum chemistry, neuroscience, and neurobiology). This science is based on insight into the unity of all life forms and the interconnectedness, interrelatedness of each and everybody. New economic theories on the common good and the global commons are in place (e.g. consider the Nobel Prize for Elena Ostrom 2009) and of utmost importance is the fact that all religions and philosophies agree on the urgency of empowering humankind on earth via holistic education and awareness-raising measures as soon as possible, thus giving them a chance to behave more in accordance with natural laws. All these approaches contain some basic concepts which seem to be similar: the concepts of balance, fairness, compliance, responsibility, etc. These concepts have to be discussed. In different cultures and religions, these concepts might have different meanings. A globally shared concept of environmental ethics meeting regional and religious requirements will require more serious debate.

Besides many more debates around the global vision of sustainability as agreed upon by the global community at the 1992 global conference in Rio de Janeiro, a call to the cultural creativeness will have to be initiated as well as to the media and communication sector enjoining them to apply all the knowledge along the lines of the iconic turn for promoting ecological literacy using modern means of multimedia channels and multimedia education. There is no such thing like global culture, but there are globally shared IT communications and media technologies, which could be used to communicate basic environmental philosophies and religious convictions and belief

systems. There is no doubt that Islam is rich in environmental knowledge and provides morale as well as legislation to guide human behavior in Islamic countries toward living decent lives in a sustainable lifestyle. This will require forceful and striking ways of communication.

Notes

- 1 Esbjörn-Hargens and Zimmermann (2009, p. 9).
- 2 *ibid.*, p. 12.
- 3 *ibid.*, p. 2
- 4 *ibid.*, p. 2.
- 5 *ibid.*, p. 3.
- 6 al-Qaradaghi (2013, p. 22).
- 7 *ibid.*
- 8 *ibid.*
- 9 *ibid.*, p. 8.
- 10 *ibid.*, p. 18.
- 11 *ibid.*, p. 4–5.
- 12 *ibid.*
- 13 *ibid.*, p. 35.
- 14 *ibid.*, p.40.
- 15 *ibid.*, p.14.
- 16 *ibid.*, p.15.
- 17 *ibid.*, p.41.
- 18 Schatzschneider (2013, p. 9).
- 19 *ibid.*
- 20 Gottwald (2010, pp. 137–153).
- 21 The Earth Charter Initiative – The Earth Charter.
- 22 *ibid.*
- 23 *ibid.*
- 24 *ibid.*, p. 197.
- 25 *ibid.*, p. 198.
- 26 al-Qaradaghi (2013, p. 5).
- 27 UN – Land, Natural Resources and Conflict.
- 28 EPEA – Background and Vision.
- 29 *ibid.*
- 30 *ibid.*
- 31 Blueeconomy – Pauli (2011).
- 32 Pauli (2011).
- 33 Gottwald (2008), p. 349.
- 34 Fraser (1997, pp. 187–205).
- 35 UNEP (2010).
- 36 *ibid.*, p. 157.
- 37 *ibid.*, p. 157.
- 38 Gottwald (2011, p. 103).
- 39 Gottwald (2012, p. 156).
- 40 Food and Agriculture Organization of the United Nations – Genetic Resources.
- 41 *ibid.*
- 42 *Ibid.*
- 43 Asser Institute – About.
- 44 European Commission – EMAS Environmental Policy.
- 45 *ibid.*
- 46 Division of Environmental Law and Convention – About DELC.
- 47 United Nations – Koyoto Protocol.
- 48 Organisation of Islamic Cooperation – About OIC.
- 49 *ibid.*
- 50 OIC-VET – Environment Capacity Building.
- 51 *ibid.*

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