

IUCN - The World Conservation Union

Founded in 1948, IUCN - The World Conservation Union - is a membership organisation comprising governments, non-governmental organisations (NGOs), research institutions, and conservation agencies in more than 100 countries. The Union's objective is to promote and encourage the protection and sustainable utilisation of living resources.

Several thousand scientists and experts from all continents form part of a network supporting the work of its six Commissions : threatened species, protected areas, ecology, environmental strategy and planning, environmental law, and environmental education and communication. Its thematic programmes include forest conservation, wetlands, marine ecosystems, plants, as well as population and natural resources. These activities enable IUCN and its members to develop sound policies and programmes for the conservation of biological diversity and sustainable use of natural resources.

MEPA - The Meteorology and Environmental Protection Administration

Founded in 1981, MEPA - The Meteorology and Environmental Protection Administration - was created as the central organisation for all environmental protection and management activities in Saudi Arabia in addition to its role as the National Meteorological Agency. Its responsibilities are to create and carry out programmes to conserve, improve, and protect natural resources and the environment, as well as to control air, water, and land pollution.

These protection activities are to be directed at enhancing "the health, safety and welfare of the people and to promote their overall economic and social well-being". MEPA's functions are to conduct environmental surveys, recommend regulations and other measures, assess levels of environmental pollution, stay abreast of regional and international developments in environmental protection, and establish standards and specifications.

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Environmental Protection in Islam

Second Revised Edition

Dr. Abubakr Ahmed Bagader
Dr. Abdullatif Tawfik El-Chirazi El-Sabbagh
Dr. Mohamad As-Sayyid Al-Glayand
Dr. Mawil Yousuf Izzi-Deen Samarrai

in collaboration with

Othman Abd-ar-Rahman Llewellyn

IUCN Commission on Environmental Law

Meteorology and Environmental Protection Administration (MEPA)
of the Kingdom of Saudi Arabia

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couverture design of Qur'an, Surat 15, ayah 19 : "And the earth have We spread out,
and placed therein firm hills, and caused each seeing thing to grow therein".

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In the Name of God, Most Gracious, Most Merciful

Preface to the First Edition

Praise be to God, Creator of all; The Cherisher and Sustainer of the Worlds. Blessings and Peace be upon Muhammad, God's Prophet and Apostle.

The preparation of this paper was first mooted during the process of establishing a central administration for the protection of the environment in the Kingdom of Saudi Arabia, the responsibilities of which included the development and submission of recommendations to the Government of the Kingdom of Saudi Arabia pertaining to laws and regulations for the protection of the environment.

In this context, several colleagues were consulted amongst whom was Dr. Wolfgang Burhenne, Chairman of the IUCN Commission on Environmental Policy, Law and Administration, who was enthusiastic for the paper and persevered at all times to its completion.

In view of Saudi Arabia's position as the cradle of Islam, it was natural that the subject of this paper took on international dimensions. The preparation of the paper was first discussed at international level during the ad hoc meeting of senior government official experts in environmental law, held in Montevideo (Uruguay) in 1981, where the proposal was very well received.

One of the most important reasons motivating the preparation of this paper was based on the belief of both my colleagues and I in the importance of the concept of environmental management in the process of conservation of nature and sustainable development.

The implementation of environmental management depends on the existence of appropriate legislation, and legislation becomes more effective and useful when it emanates from a nation's creed and when it represents its cultural and intellectual heritage. This strong relationship between the effectiveness of legislation and the strength of its cultural roots appears to me to be all the more necessary when dealing with environmental issues, especially in Islamic societies. For Islam presents a way of life that encompasses an overall view of the universe, life, man and the inter-relationships existing between them and also combines conviction, belief, legislation and enforcement of this legislation.

It is also appropriate to refer to the existence of other reasons for the preparation of this paper:

1. The ever-increasing need to devise and formulate legislation for the protection of the environment, especially in view of the rapidly increasing technological and industrial progress in all fields and aspects of development.
2. The insufficiency of the present legislation now applied in contemporary societies and its inadequacy to achieve the required protection of the natural environment.
3. The urgent need, particularly in Islamic countries, to formulate a clear method and plan that would help all responsible authorities and individuals alike in these countries to define, determine and lay down the necessary procedures and measures for the conservation and protection of the environment as well as for putting these procedures into effect.

The present work aims at presenting a preliminary paper in this field and it is hoped that this will motivate more comprehensive and specialized research in the future. It objectively defines the Islamic concept of the environment, the relationship of man with the environment, and the interaction of both with regard to man's sustainable utilization and development of natural resources.

Many colleagues have participated in both enhancing and achieving this work. Previously, I have mentioned Dr. Wolfgang Burhenne and I now mention Dr. Hamad Al Erainan, Dean of the Faculty of Arts and Humanities, King Abdulaziz University, Jeddah, for his kind support; also I would mention Mr. Omar Bakhshab who prepared a preliminary report on the subject in 1981; Dr. Abdul Elah Banaja, Dean of the Faculty of Science, King Abdulaziz University, Jeddah; Dr. Mustafa A. Al Deghather, Director General of Environmental Protection Division (MEPA); Dr. Nizar Ibrahim Tawfiq, the Director General of the National Meteorological and Environmental Protection Centre (MEPA); and Dr. Zaki Mustafa, Secretary General of the Saudi-Sudanese Commission for the Development of the Red Sea Resources.

In regard to the Authors, it is my belief that in achieving this work they have placed a basic milestone on the path of connecting Islam with one of the most complicated and useful branches of the applied sciences.

May Allah guide us to the right aim.

Abdulbar Al-Gain
Vice-President of IUCN
1983 AD / 1403 H

Jeddah, Saudi Arabia.

Acknowledgements to the First Edition

We should like to extend our thanks and appreciation to His Excellency Dr. Hamad Al Erainan, Dean of the Faculty of Arts and Humanities, King Abdulaziz University, Jeddah, for taking the initiative in proposing to the Meteorology and Environmental Protection Administration (MEPA) that the Department of Islamic Studies at King Abdulaziz University would undertake the present study.

We should also like to thank all who contributed to this work and shared in discussing it, especially Dr. Abdulbar al-Gain, Vice-President of the Meteorology and Environmental Protection Administration and Vice President of the International Union for Conservation of Nature and Natural Resources; Dr. Abdul Elah Banaja, Dean of the Faculty of Science, King Abdulaziz University; Dr. Mustafa A. Al Deghather, Director General of Environmental Protection Division (MEPA); Dr. Nizar Ibrahim Tawfiq, the Director General of the National Meteorological and Environmental Protection Centre (MEPA); and Dr. Zaki Mustafa, Secretary General of the Saudi-Sudanese Commission for the Development of the Red Sea Resources.

Also, we should like to refer to the specialized expertise of Dr. Wolfgang Burhenne, Chairman, IUCN Commission on Environmental Policy, Law and Administration, which helped us carry out our task and achieve our purpose.

Finally, we should also refer to the great benefit and help we received from the preliminary work carried out by Mr. Omar Bakhshab and other researchers in this field.

Allah is our ultimate satisfaction.

The Authors
1983 AD / 1403 H

In the Name of God, Most Gracious, Most Merciful

Preface to the Second Edition

Praise be to God; Creator of all, The Cherisher and Sustainer of the World, Prayer and Peace upon Muhammad, God's Prophet and Apostle.

Today, Mankind finds himself at a point in history that is pivotal in terms of the very nature of his relationship to the natural world. His footprint is to be found everywhere throughout the Planet, in the air, in the deep seas, the forests and the polar ice.

Human activities over the last century have so affected natural processes that the very atmosphere upon which life depends has been altered. These impacts are of such a magnitude that Nature itself, as an independent self regulating force has been compromised and will require human intervention; intervention which itself could further alter natural processes.

Thus, in embarking upon such an unprecedented intervention in natural processes, it becomes increasingly important to carefully examine the basis of the relationship between our species and the natural world. It is particularly important to examine alternatives to the philosophic regime which has shepherded human society into the present state, and to seek an environmental sustainability in that relationship which can continue in perpetuity.

As Muslims, constituting 20% of the World's population, we must examine these issues carefully because future events in Islamic nations have the potential to create an environmental impact of major magnitude. Most Islamic nations are developing and must expand economically in order to meet basic needs. Should this expansion pass through the same evolutionary cycle as prior industrial development, the environmental impacts could be disastrous. Consequently, Islamic nations must seek modalities which will enable them to "leapfrog" ahead to environmentally less damaging forms of economic expansion.

The Islamic World's phenomenal economic expansion has created a need for increasingly sophisticated environmental policy as development continually poses new questions for examination. Islam offers great advantage for environmental conservation, protection and sustainable development in that it is a source for law that is consistent with cultural values of Islamic Society and can be imported with ease into environmental policy that is both effective and implementable.

In seeking culturally appropriate modalities, the principles of Islam are providing guidance for environmental managers; since Islam represents more than a belief system,

it is a way of life and a well defined set of values providing specific guidance for virtually every aspect of life. Islam offers a font of inspiration which can be translated into policies for development, for regulation and law, for influencing public attitudes, and for achieving a sustainable relationship between mankind and the natural world provided by his Creator.

As the agency with responsibility for environmental management in Saudi Arabia, MEPA is involved in the establishment of national environmental policy. Since the agency operates within the cradle of Islam, it is imperative that such policy reflects the values and tenets of our beliefs. It was with this intention that we first began, in association with the International Union for the Conservation of Nature, the original research that led to the first edition of *Islamic Principles For Conservation of the Natural Environment*.

The first edition was extremely successful in addressing this need. Over 85,000 copies were distributed, reaching and "influencing" people throughout the world. It has continually served as important source material for connecting Islam with environmental conservation at educational and practicing levels.

Thus, in the second edition of *Islamic Principles For Conservation of the Natural Environment* research was expanded in order to address situations which were not present before. It is presented here in the hopes that it may offer further guidance and inspiration to both Muslims and non-Muslims alike as they seek solutions to the challenges of environmental conservation.

As with the prior edition, many individuals have contributed to this effort in offering suggestion, inspiration and guidance. In addition to the excellent theological research of the authors, Othman Llewellyn provided major contributions in terms of both content and editorial care. Wolfgang Burhenne, Legal Advisor of IUCN, as with the first edition, has been constant in his support and encouragement. A number of additional contributions are mentioned in the acknowledgements section that follows.

It is my belief that the authors of this edition have provided a valuable framework, connecting Islam with that most complex of sciences and providing environmental managers with an important context for reflecting upon the complexity of their obligation and meeting their responsibilities to future generations.

May Allah guide us to the right aim.

Abdulbar Al-Gain
President, MEPA
Saudi Arabia
1993 AD / 1413 H

Acknowledgements to the Second Edition

We wish to extend our deepest appreciation and thanks to all of our colleagues who took part in the production of this expanded edition of our Basic Paper on Islamic Principles for the Conservation of the Natural Environment. In particular, we should like to mention Dr. Abdulbar Al-Gain, President of MEPA, Mr. Abdulwahab M. Dakkak, Director General of Natural Resources, MEPA, Dr. Ali M. Dakkak, King Abdulaziz University, and Dr. Wolfgang Burhenne, who once again has contributed his well-known specialized expertise.

We thank Mr. Othman Llewellyn for his care in expanding and revising this edition, and express our appreciation of the kindness of the Kingdom of Saudi Arabia's National Commission for Wildlife Conservation and Development and its Secretary General, Dr. Abdulaziz H. Abuzinada in authorizing Mr. Llewellyn to collaborate on this work.

We wish to also express our gratitude to those who contributed to the improvement of this publication, in particular Dr. Anas M. Al Zarqa (King Abdulaziz University, Jeddah), Mr. Ali Al Sammany (National Commission for Wildlife Conservation and Development), Mr. Abdullah Ba-Dhorise and Mr. Naif Shalhoub (MEPA).

Finally, we thank Dr. Mawil Izzi-Deen Samarrai for undertaking on our behalf the task of reviewing and supervising all the changes and additions that were made.

May God grant all of us success in our striving toward the truth — it is for Him that we we make our endeavour.

The Authors
1993 AD / 1413 H

In the Name of God, Most Gracious, Most Merciful

Environmental Protection in Islam

An Islamic study prepared by:

Dr. Bagader, Abubakr Ahmed, born in Makkah, Saudi Arabia (Professor of Sociology, Faculty of Arts and Humanities, King Abdulaziz University, Jeddah).

Dr. El-Sabbagh, Abdullatif Tawfik El-Chirazi, born in Hamah, Syria (Associate Professor, Department of Islamic Studies, Faculty of Arts and Humanities, King Abdulaziz University, Jeddah).

Dr. Al-Glayand, Mohamad As-Sayyid, born in Manshiyyat al-Umara', Egypt (Professor of Islamics, Dar Al-Uluum, University of Cairo, Egypt).

Dr. Samarrai, Mawil Yousuf Izzi-Deen, born in Ba'qubah, Iraq (Professor of Islamics, Cardiff, U.K.).

The original Arabic version was translated into English by:

Abdul Rahman, Karam Mohsen (Senior Language Instructor, Department of Mass Communication, Faculty of Arts, King Abdulaziz University, Jeddah).

Second Edition prepared by the original authors in collaboration with:

Othman Abd-ar-Rahman Llewellyn, born in Colorado Springs, USA (Environmental Planner, National Commission for Wildlife Conservation and Development, Kingdom of Saudi Arabia).

SECTION ONE

A General Introduction to Islam's Attitude Toward the Universe, Natural Resources, and the Relation Between Man and Nature

1. All things that God has created in this universe are created in due proportion and measure both quantitatively and qualitatively. God has declared in the Qur'an, "Verily, all things have We created by measure"¹ and "Everything to Him is measured."² And He says, "And We have produced therein everything in balance."³ In the universe there is enormous diversity and variety of form and function. In it and its various elements there is fulfilment of man's welfare and evidence of the Creator's greatness; He it is Who determines and ordains all things, and there is not a thing He has created but celebrates and declares His praise. "Have you not seen that God is glorified by all in the heavens and on the earth — such as the birds with wings outspread? Each knows its worship and glorification, and God is aware of what they do."⁴ Each thing that God has created is a wondrous sign, full of meaning, pointing beyond itself to the glory and greatness of its Creator, His wisdom and His purposes for it. "He Who has spread out the earth for you and threaded roads for you therein and has sent down water from the sky: With it have We brought forth diverse kinds of vegetation. Eat and pasture your cattle; verily, in this are signs for men endued with understanding."⁵
2. God has not created anything in this universe in vain, without wisdom, value and purpose. God says, "We have not created the heavens and the earth and all that is between them carelessly. We have not created them but for truth."⁶ The vision of a universe imbued with value is thus revealed to us in the Glorious Qur'an. All things in the universe are created to serve the One Lord Who sustains them all by means of one another, and Who controls the miraculous cycles of life and death: "God it is that splits the seed and the date stone, brings the living from the dead and the dead from the living: That is your God — how are you turned away?"⁷

Life and death are created by God so that He might be served by means of good works. "Blessed is He in Whose Hand is dominion, and He has power over every thing: He Who has created death and life to try you, which of you work the most good."⁸ The Prophet Muhammad, upon him be blessings and peace, is reported to have declared, "Created beings are the dependents of God, and the creature dearest unto God is he who does most good to God's dependents."⁹ Thus all created beings are created to serve the Lord of all beings by performing their ordained

roles so as to best benefit each other. This leads to a cosmic symbiosis (takaful). The universal common good is a principle that pervades the universe, and an important implication of God's unity, for one can serve the Lord of all beings only by working for the common good of all.

3. Man is part of this universe, the elements of which are complementary to one another in an integrated whole. Indeed, man is a distinct part of the universe and has a special position among its other parts. The relation between man and the universe, as defined and clarified in the Glorious Qur'an and the Prophetic teachings, is as follows:
 - A relationship of meditation on, and consideration and contemplation of, the universe and what it contains.
 - A relationship of sustainable utilization, development and employment for man's benefit and for the fulfilment of his interests.
 - A relationship of care and nurture, for man's good works are not limited to the benefit of the human species, but rather extend to the benefit of all created beings; and "there is a reward in doing good to every living thing."
4. God's wisdom has ordained to grant human beings stewardship (khilafah) on the earth. Therefore, in addition to being part of the earth and part of the universe, man is also the executor of God's injunctions and commands. And as such he is only a manager of the earth and not a proprietor; a beneficiary and not a disposer or ordainer. Heaven and earth and all that they contain belong to God alone. Man has been granted stewardship to manage the earth in accordance with the purposes intended by its Creator; to utilize it for his own benefit and the benefit of other created beings, and for the fulfilment of his interests and of theirs. He is thus entrusted with its maintenance and care, and must use it as a trustee, within the limits dictated by his trust. For the Prophet, upon him be blessings and peace, declared, "The world is beautiful and verdant, and verily God, be He exalted, has made you His stewards in it, and He sees how you acquit yourselves."¹⁰
5. All of the resources upon which life depends have been created by God as a trust in our hands. He has ordained sustenance for all people and for all living beings. "And He has set within it mountains standing firm, and blessed it, and ordained in it its diverse sustenance in four days, alike for all that seek."¹¹ Thus, the utilization of these resources is, in Islam, the right and privilege of all people and all species. Hence, man should take every precaution to ensure the interests and rights of all others since they are equal partners on earth. Similarly, he should not regard such use as restricted to one generation above all other generations. It is rather a joint usufruct in which each generation uses and makes the best use of nature, according to its need, without disrupting or adversely affecting the interests of

future generations. Therefore, man should not abuse, misuse, or distort the natural resources as each generation is entitled to benefit from them but is not entitled to "own" them in an absolute sense.

6. The right to utilize and harness natural resources, which God has granted man, necessarily involves an obligation on man's part to conserve them both quantitatively and qualitatively. God has created all the sources of life for man and all resources of nature that he requires, so that he may realize objectives such as contemplation and worship, inhabitation and construction, sustainable utilization, and enjoyment and appreciation of beauty. It follows that man has no right to cause the degradation of the environment and distort its intrinsic suitability for human life and settlement. Nor has he the right to exploit or use natural resources unwisely in such a way as to spoil the food bases and other sources of subsistence for living beings, or expose them to destruction and defilement.
7. While the attitude of Islam to the environment, the sources of life, and the resources of nature is based in part on prohibition of abuse, it is also based on construction and sustainable development. This integration of the development and conservation of natural resources is clear in the idea of bringing life to the land and causing it to flourish through agriculture, cultivation, and construction. God says, "It is He Who has produced you from the earth and settled you therein."¹² The Prophet, upon him be blessings and peace, declared, "If any Muslim plants a tree or sows a field, and a human, bird or animal eats from it, it shall be reckoned as charity from him."¹³ "If anyone plants a tree, no human being nor any of God's creatures will eat from it without its being reckoned as charity from him."¹⁴ "If the day of resurrection comes upon any one of you while he has a seedling in hand, let him plant it."¹⁵

The approach of Islam toward the use and development of the earth's resources was put thus by 'Ali ibn Abi-Talib, the fourth Caliph, to a man who had developed and reclaimed abandoned land: "Partake of it gladly, so long as you are a benefactor, not a despoiler; a cultivator, not a destroyer."¹⁶

This positive attitude involves taking measures to improve all aspects of life: health, nutrition, and the psychological and spiritual dimensions, for man's benefit and the maintenance of his welfare, as well as for the betterment of life for all future generations.

And as is shown in the Prophetic declarations above, the aim of both the conservation and development of the environment in Islam is the universal good of all created beings.

SECTION TWO

Protection and Conservation of the Basic Natural Resources

Throughout the universe, the divine care for all things and all-pervading wisdom in the elements of creation may be perceived, attesting to the All-Wise Maker. The Glorious Qur'an has made it clear that each thing and every creature in the universe, whether known to man or not, performs two major functions: a religious function in so far as it evidences the Maker's presence and infinite wisdom, power, and grace; and a social function in the service of man and other created beings.

God's wisdom has ordained that His creatures shall be of service to one another. The divinely appointed measurement and distribution of all elements and creatures, each performing its ordained role and all of them valuable, makes up the dynamic balance by which the creation is maintained. Overexploitation, abuse, misuse, destruction, and pollution of natural resources are all transgressions against the divine scheme. Because narrow-sighted self-interest is always likely to tempt men to disrupt the dynamic equilibrium set by God, the protection of all natural resources from abuse is a mandatory duty.

In the divine scheme by which all creatures are made to be of service to one another, God's wisdom has made all things of service to mankind. But nowhere has God indicated that they are created only to serve human beings. On the contrary, Muslim legal scholars have maintained that the service of man is not the only purpose for which they have been created: "With regard to God's saying, 'And He has made the ships to be of service unto you, that they may sail the sea by His command, and the rivers He has made of service unto you. And He has made the sun and the moon, constant in their courses, to be of service unto you, and He has made of service unto you the night and day. And He gives you all you seek of Him: If you would count the bounty of God, you could never reckon it.'" — and similar verses in which God declares that He created His creations for the children of Adam — it is well known that God in His great wisdom has exalted purposes in them other than the service of man, and greater than the service of man. However, He makes clear to the children of Adam what benefits there are in these creatures and what bounty He has bestowed upon mankind."²

Vitaly important, as the social functions of all things are, the primary function of all created beings as signs of their Creator constitutes the most sound legal basis for conservation of the environment. It is not possible to base the protection of our

environment on our need for its services alone since these services are but a supporting value and reason.³ Because we cannot be aware of all the beneficial functions of all things, to base our efforts at conservation solely on the environmental benefits to man would lead inevitably to distortion of the dynamic equilibrium set by God and misuse of His creation, thereby impairing these same environmental benefits. However, when we base the conservation and protection of the environment on its value as the signs of its Creator, we cannot omit any thing, for every element and species has its individual and unique role to play in glorifying God, and in bringing man to know and understand his Creator by showing him God's infinite power, wisdom, and mercy. It is impossible to countenance the willful ruin and loss of any of the basic elements and species of the creation, or to think that the continued existence of the remainder is sufficient to lead us to contemplate the glory, wisdom, and might of God in all the aspects that are intended, because species differ in their special qualities, and each evidences God's glory in ways unique to it alone.

Furthermore, all human beings, and indeed livestock and wildlife as well, enjoy the right to share in the resources of the earth. Man's abuse of any resource is forbidden, and the best use of all resources, both living and lifeless, is prescribed.

The following is a discussion of the basic natural elements:

1. Water

God has made water the basis and origin of life. God says, "We made from water every living thing."⁴ Plants, animals, and man all depend on water for their existence and for the continuation of their lives. God has said, "Verily...in the rain that God sends down from heaven, thereby giving life to the earth after its death..." and He has said, "It is He Who sends down water from the sky; and thereby We have brought forth the plants of every kind."⁶ "And you see the earth barren and lifeless, but when We pour down rain upon it, it stirs and swells, and puts forth growth of every resplendent kind."⁷ and He has also said, "And We send down pure water from the sky, thereby to bring to life a dead land and slake the thirst of that which We have created — cattle and men in multitudes."⁸ God has called on man to appreciate the value of this so essential source of life: "Have you seen the water which you drink? Was it you who sent it down from the raincloud or did We send it? Were it Our will, We could have made it bitter; why then do you not give thanks?"⁹ And He has reminded us, "Say: Have you considered, if your water were one morning to have seeped away, who then could bring you clear-flowing water?"¹⁰

In addition to this vital function, water has another socio-religious function to perform which is purification of the body and clothing from all dirt, impurities and defilement so that man may encounter God clean and pure. God has said in the Glorious Qur'an, "And He caused rain to descend on you from heaven to cleanse you therewith"¹¹ God has also shown us other functions of lake, sea, and ocean water. He has made it the

habitat of many created beings which play vital roles in the perpetuation of life and the development of this world. God has said, "It is He Who has made the sea of service, that you may eat thereof flesh that is fresh and tender, and that you may bring forth from it ornaments to wear, and you see the ships therein that plough the waves, that you may seek of His bounty."¹² He also says, "Lawful to you is the pursuit of water-game and its use for food — a provision for you, and for those who travel."¹³

There is no doubt that conservation of this vital element is fundamental to the preservation and continuation of life in its various forms, plant, animal, and human. It is therefore obligatory, for in Islamic law, whatever is indispensable to fulfil the imperative obligation of preserving life is itself obligatory. Any action that obstructs or impairs the biological and social functions of this element, whether by destroying it or by polluting it with any substance that would make it an unsuitable environment for living things or otherwise impair its function as the basis of life; any such action necessarily leads to the impairment or ruin of life itself. And the juristic principle is, "What leads to the prohibited is itself prohibited."

Owing to the importance of water as the basis of life, God has made its use the common right of all living beings and all human beings. All are entitled to use it without monopoly, usurpation, despoilment, wastage, or abuse. God commanded with regard to the people of Thamud and their camel, "And tell them that the water shall be shared between them,"¹⁴ and the Prophet, upon him be blessings and peace, said, "Muslims are to share in these three things: water, pasture, and fire."¹⁵ Extravagance in using water is forbidden; this applies to private use as well as public, and whether the water is scarce or abundant. It is related that the Prophet, upon him be blessings and peace, passed by his companion Sa'd, who was washing for prayer, and said, "What is this wastage, O Sa'd?" "Is there wastage even in washing for prayer?" asked Sa'd; and he said, "Yes, even if you are by a flowing river!"¹⁶

The long experience of Muslim jurists in the allocation of water rights in arid lands has given rise to an outstanding example of the sustainable use of a scarce resource; an example which is of increasing relevance in a world where resources which were once abundant are becoming progressively more scarce.

2. Air

This element is no less important than water for the perpetuation and preservation of life. Nearly all terrestrial creatures are utterly dependent on the air they breathe. The air also has other functions which may be less apparent to man but which God has created for definite purposes, as we have been made aware of by the Glorious Qur'an — such as the vitally important role of the winds in pollination. God has said, "And we send the fertilizing winds."¹⁷ The winds are also clear evidence of God's omnipotence and grace, and the perfection of design in His creation. He has also said, "Verily in the creation

of the heavens and the earth; in the alternation of night and day.... in the change of the winds, and the clouds compelled between heaven and earth — surely there are signs for a people who have sense.”¹⁸ “And He it is Who sends the winds as tidings heralding His grace: until when they have raised a heavy-laden cloud, We drive it to a dead land and cause the rain to descend upon it, and thereby bring forth fruits of every kind.”¹⁹

Since the atmosphere performs all these biological and social functions, its conservation, pure and unpolluted, is an essential aspect of the conservation of life itself which is one of the fundamental objectives of Islamic law. Again, whatever is indispensable to fulfil this imperative obligation is itself obligatory. Therefore any activity which pollutes it and ruins or impairs its function is an attempt to thwart and obstruct God’s wisdom toward His creation. This must likewise be considered an obstruction of some aspects of the human role in the development of this world.

3. The Land and Soil

Like air and water, the land and soil are essential for the perpetuation of our lives and the lives of other creatures. God has declared in the Qur’an, “And the earth He has established for living creatures.”²⁰ From the minerals of the earth are made the solid constituents of our bodies, as well as those of all the living animals and plants. God has said in the Qur’an, “And among His signs is that He has created you from dust; then behold, you are humans scattered widely.”²¹ He has also made the land our home and the home of all terrestrial beings. “And God has made you grow as a plant from the earth; then to it He returns you, and He will bring you forth anew...”²² And as our home, the land has value as open space: “...and God has made the earth a wide expanse, that you may traverse its open ways.”²³

God has made the land a source of sustenance and livelihood for us and other living creatures: He has made the soil fertile to grow the vegetation upon which we and all animal life depend. He has made the mountains to catch and store the rain and to perform a role in stabilizing the crust of the earth, as He has shown us in the Glorious Qur’an: “Have We not made the earth a vessel to hold the living and the dead? And We have made in it lofty mountains and provided you sweet water to drink.”²⁴ “And the earth, after that He has spread it out; from it He has brought forth its waters and its pastures, and He has made fast the mountains, a provision for you and for your cattle.”²⁵ “And the earth, We have spread it out, and made in it mountains standing firm, and grown in it every thing in balance. And We have provided in it sustenance for you, and for those whom you do not support.”²⁶ “And a sign for them is the lifeless earth: We bring it to life and bring forth from it grain of which they eat. And we have made therein gardens of palms and vines, and caused springs to gush forth therein — that they may enjoy of the fruits thereof, and it was not their hands that made this — will they not, then, give thanks?”²⁷

If we would truly give thanks to the Creator, we are required to maintain the productivity of the soil, and not expose it to erosion by wind and flood; in building, farming, grazing, forestry, and mining, we are required to follow practices which do not bring about its degradation but preserve and enhance its fertility. For to cause the degradation of this gift of God, upon which so many forms of life depend, is to deny His tremendous favors. And because any act that leads to its destruction or degradation leads necessarily to the destruction and degradation of life on earth, such acts are categorically forbidden.

Finally, the Prophet Muhammad, God’s blessing and peace be upon him, declared that “The whole earth has been created as a place of worship for me, pure and clean.”²⁸ Accordingly, we are charged with treating it with the respect due to a place of worship, and with keeping it pure and undefiled.

4. Plants and Animals

There is no denying the importance of plants and animals as living resources of enormous benefit, without which neither man nor other species could survive. God—be He exalted—has not made any of His creatures worthless: every single form of life is the product of a special and intricate development by God, and warrants special respect. As a living genetic resource, each species and variety is unique and irreplaceable. Once lost, it is lost forever.

By virtue of their unique function of producing food from the energy of the sun, plants constitute the basic source of sustenance for animal and human life on earth. God has said, “Then let man consider his nourishment: that We pour down the rain in showers, and We split the earth in fragments, and therein make the grain to grow, and vines and herbs, and olives and palms, and gardens of dense foliage, and fruits and fodder — provision for you and your cattle.”²⁹

In addition to their importance as nourishment, plants enrich the soil and protect it from erosion by wind and water. They conserve the water by detaining its runoff; they moderate the climate and produce the oxygen which we breathe. They are also of immense value as medicines, oils, perfumes, waxes, fibers, timber, and fuel. God has said in the Glorious Qur’an, “Have you seen the fire you kindle? Was it you who grew its timber or did We grow it? We have made it a reminder, and a comfort for the desert-dwellers.”³⁰

Animals in turn provide sustenance for plants, for one another, and for man. Their dung and their bodies enrich the soil and the seas. They contribute to the atmosphere by respiration, and by their movements and migrations contribute to the distribution of plants. They provide food for one another and provide mankind with leather, hair and wool, medicines and perfumes, and means of conveyance, as well as meat, milk, and

honey. And for their highly developed senses and perceptions and their social interrelationships, animals are accorded special regard in Islam. For God considers them living societies exactly like mankind. God has declared in the Glorious Qur'an, "There is not an animal on the earth, nor any being that wings its flight, but is a people like unto you."¹¹

The Glorious Qur'an mentions the aesthetic functions of these creatures as objects of beauty in addition to their other functions. Since peace of mind is a religious requirement which needs to be fully satisfied, those things which cause it should be amply provided and conserved. God has made in plants and animals that which excites wonder and joy in man's soul so as to satisfy his peace of mind, a factor which is essential for man's proper functioning and full performance.

The Glorious Qur'an also mentions other functions which these creatures perform and which man may not perceive, namely the functions of worshipping God, declaring His praise and bowing down to Him as they are compelled by their very nature to do. God has said, "Do you not see that to God bow down in worship all things that are in the heavens and on the earth — the sun, the moon, the stars, the mountains, the trees, the animals..."¹² and God says, "The seven heavens and the earth and all the beings therein proclaim His glory: There is not a thing but celebrates His praise, but you understand not how they declare His glory."¹³ and He says, "To God bow all beings in the heavens and the earth — with good will or in spite of themselves."¹⁴

Islam emphasizes all measures for the survival and perpetuation of these creatures so that they can fully perform the functions assigned to them. The absolute destruction of any species of animal or plant by man can in no way be justified; nor should any be harvested at a rate in excess of its natural regeneration. This applies to hunting and fishing, forestry and wood-cutting for timber and fuel, grazing, and all other utilization of living resources. It is imperative that the genetic diversity of living beings be preserved — both for their own sake and for the good of mankind and all other creatures.

The Prophet Muhammad, upon him be blessings and peace, was sent by God as "a mercy to all beings."¹⁵ He has shown us, through his commandments and teachings, how to tend and care for these creatures. He said, "The merciful are shown mercy by the All-Merciful. Show mercy to those on earth, and He Who is in heaven will show mercy unto you."¹⁶ He commanded mankind to provide for the needs of any animals under their care, and he warned that a person who causes an animal to die of starvation or thirst is punished by God in the fire of hell.¹⁷ Furthermore, he directed human beings to provide for needy animals in general, telling of a person whose sins God pardoned for the act of giving water to a dog in desperate thirst. Then when the people asked, O Messenger of God, is there a reward in doing good to these animals? He said, "There is a reward in doing good to every living thing."¹⁸

Hunting and fishing for food is permitted in Islam; however, the Prophet, upon him be blessings and peace, cursed anyone who uses a living creature as a target, taking a

life for mere sport.¹⁹ Likewise he forbade that one prolong an animal's slaughter.²⁰ He declared, "God has prescribed the doing of good toward every thing: so when you kill, kill with goodness, and when you slaughter, slaughter with goodness. Let each one of you sharpen his blade and let him give ease to the animal he is slaughtering."²¹

The Prophet Muhammad, upon him be blessings and peace, forbade that a fire be lit upon an anthill, and related that an ant once stung one of the prophets, who then ordered that the whole colony of ants be burned. God revealed to him in rebuke, "Because an ant stung you, you have destroyed a whole nation that celebrates God's glory."²² He once ordered a man who had taken the nestlings of a bird from their nest to return them whence he got them, to their mother which was trying to protect them.²³ He forbade that one needlessly and wrongfully cut down any tree which provides valuable shelter to humans or animals in the desert,²⁴ and the aim of this prohibition may be understood as prevention of the destruction of valuable habitat for God's creatures.

On the basis of the Prophetic commands and prohibitions, Muslim legal scholars have ruled that God's creatures possess inviolability (*hurmah*) which pertains even in war: The Prophet, upon him be peace and the blessing of God, forbade the killing of bees and any captured livestock, for killing them is a form of corruption included in what God has prohibited in His saying, "And when he turns away, he hastens through the land to cause corruption therein and to destroy the crops and cattle: And God loves not corruption."²⁵ For they are animals with the spirit of life, so it is not lawful to kill them in order to gail the enemy idolators...And they are animals possessing inviolability just as do women and children."²⁶

It is a distinctive characteristic of Islamic law that all animals have certain legal rights, enforceable by the courts and by the office of the *hisbah*. The following statement of the rights of animals was formulated over seven centuries ago on the basis of the Prophetic traditions:

"The rights of livestock and animals with regard to their treatment by man: These are that he spend on them the provision that their kinds require, even if they have aged or sickened such that no benefit comes from them; that he not burden them beyond what they can bear; that he not put them together with anything by which they would be injured, whether of their own kind or other species, and whether by breaking their bones or butting or wounding; that he slaughter them with kindness if he slaughters them, and neither flay their skins nor break their bones until their bodies have become cold and their lives have passed away; that he not slaughter their young within their sight; that he set them apart individually; that he make comfortable their resting places and watering places; that he put their males and females together during their mating seasons; that he not discard those which he takes in hunting; and neither shoot them with anything that breaks their bones nor bring about their destruction by any means that renders their meat unlawful to eat."²⁷

Islam looks upon these created beings, both animals and plants, in two ways:

- As living beings in their own right, glorifying God and attesting to His power and wisdom;
- As creatures subjected in the service of man and other created beings, fulfilling vital roles in the development of this world.

Hence the binding obligation to conserve and develop them both for their own sake and for their value as unique and irreplaceable living resources for the benefit of one another and of mankind.

SECTION THREE

Protection of Man and the Environment from the Harmful Impacts of Products and Processes Generated by Man

If Islam is thus vigorous in its protection of the basic elements of the environment for the benefit of present and future generations, it is equally earnest in the protection of man and the environment from the harmful impacts of external factors such as chemical products and wastes. Damage of all forms and kinds is forbidden in Islam. One of the fundamental principles of Islamic law is the Prophetic declaration, "There shall be no damage and no infliction of damage."¹ Prevention of damage and corruption before it occurs is better than treatment after it occurs. Another of the most important juristic rules is, "The averting of harm takes precedence over the acquisition of benefits." Accordingly, all activities which aim at achieving good and securing benefits by way of satisfying human needs, providing services and developing agriculture, industry, and means of communication, should be carried out without causing significant damage, injury, or corruption. It is therefore imperative that precautions be taken in the processes of envisaging, planning and implementing such activities so that, as far as possible, they may not be accompanied by or result in any form of damage or corruption.

1. Wastes, Exhausts, Cleansing Materials, and Other Toxic and Harmful Substances

Wastes and exhausts, resulting from man's daily and ordinary activities or from industrial activities and uses of modern and advanced technology, should be carefully disposed of or eliminated, in order to protect the environment against corruption and distortion and to protect man from the effects of these harmful impacts on the environment, its beauty and vitality, and to ensure the protection of other environmental parameters. The accumulation of waste is largely a result of our wastefulness; whereas Islam's prohibition of wastefulness requires the re-use of goods and recycling of materials and waste products in so far as is possible, instead of their disposal as trash.

The Prophet, upon him be blessings and peace, forbade that a person relieve himself in a water source or on a path, or in a place of shade, or in the burrow of a living creature.² The values underlying these prohibitions should be understood as applicable to the pollution of critical resources and habitats in general. Wastes, exhausts, and similar

pollutants should be treated at their sources, with the best feasible means of treatment, taking care in their disposal to avoid adverse side effects that lead to similar or greater damage or injury. The juristic principle in this connection is "Damage shall not be eliminated by means of similar or greater damage."

This is also true of the harmful effects of cleansing and other toxic or harmful materials used in homes, factories, farms, and other public or private premises. It is absolutely necessary to take all possible measures to avoid and prevent their harmful effects before they occur, and to eliminate or remove such effects if they do occur in order to protect man and his natural and social environment. Indeed, if the damage resulting from these materials proves greater than their benefits, they should be prohibited. In this case, we should look for effective and harmless or less harmful alternatives.

2. Pesticides

These same principles apply equally to all pesticides including insecticides and herbicides. The use of such materials should not lead to any harm or damage to man or the environment in the present or the future. Consequently, control and prohibition of whatever leads to harm or damage to people or to ecosystems is required, even though this control or prohibition may affect the interests of some individuals, in accordance with the principle that "A private injury is accepted to avert a general injury to the public." All legitimate and lawful means should be used to avoid and prevent damage or harm, provided that such means do not lead to or cause similar or greater damage. The juristic rule in this connection is "The lesser of two evils shall be chosen." If the use of such pesticides is unavoidable, then "Dire necessity renders prohibited things permissible." However, "Every necessity shall be assessed according to its value," and "That which is permitted on account of an excuse ceases to be permissible with the cessation of that excuse."

The most selective and least destructive means of pest control are required by these values and principles of Islam. Preventive measures, biological controls, non-poisonous repellents, biodegradable substances, and narrow-spectrum pesticides should be favored whenever possible over their more destructive alternatives, and their application should be carefully calculated to protect man, his crops, and livestock with utmost efficiency and effectiveness, and with minimum overall injury to God's creation.

3. Radioactive Substances

The principles mentioned above apply as well to radioactive substances which not only are extremely toxic, but also remain so over extremely long periods of time. We should prevent and avoid the harmful effects of their use on people and ecosystems. It is also

imperative that we satisfactorily dispose of all radioactive wastes. Special precautions are required to prevent the discharge of such wastes from nuclear facilities, whether due to carelessness or malfunction, and to avoid all harmful effects from the testing of nuclear explosives.

4. Noise

Since industries, mass communication, and transport tend to be accompanied by and associated with noise, it is necessary to look for all possible ways and means of avoiding and minimizing this noise. Noise has a harmful impact on man and the living elements of the environment — hence the necessity of reducing and preventing this harm as far as possible and by every means, according to the rules and injunctions of Islamic law.

5. Intoxicants and Other Drugs

It is clear that intoxicants and narcotics have a harmful effect on man's physical and mental health and, as a consequence, on his life and his reason, offspring, work, properties, honor, and righteousness. It has been proven without doubt that intoxicants and other drugs cause considerable physical, social, and psychological disorders. Therefore, all kinds of intoxicants and mind-affecting drugs have been prohibited in Islam. Their production and marketing is forbidden as is that of anything that is associated with them or assists in their production. This shows the concern of Islamic legislation over fourteen centuries for the protection of man and the conservation of his social and physical environment against all forms and kinds of corruption, harm, damage and pollution.

6. Natural Catastrophes

All necessary precautions should be taken to minimize the effects of catastrophes which befall man and the environment, such as floods, earthquakes, volcanic eruptions, storms, natural conflagrations, desertification, infestations, and epidemics. It must be recognized that natural disasters are often caused in part by acts of man, and that their consequences by way of loss of life and property are in many cases aggravated by inappropriate settlement, building, and land use practices. Accordingly, their impacts can be largely mitigated by planning with foresight, based on understanding of natural processes. Unsuitable land use practices and activities should not be permitted in areas inherently or potentially hazardous to human life and health or areas vulnerable to disruption of natural processes.

Protection of man and man's properties and interests is essential and necessary and "Whatever is indispensable to fulfill an imperative obligation is itself obligatory."

Islamic law maintains that "Damage shall be eliminated," and "Damage shall be removed to the extent that is possible." However, the protective measures that are taken should not lead to other adverse impacts in accordance with the principle that "Damage shall not be eliminated by means of similar damage."

SECTION FOUR

Legislative Principles, Policies, and Institutions of Islamic Law which Govern the Procedures and Measures for the Protection and Conservation of the Environment

The ultimate objective of Islamic law is the universal common good of all created beings, encompassing both our immediate welfare in the present and our ultimate welfare in the hereafter. This objective of the universal common good is a distinctive characteristic of Islamic law. It means that no species or generation may be excluded from consideration in the course of planning and administration, but that each individual Muslim as well as the Muslim community must honestly strive toward the welfare of the whole.

1. The Mandate of the Individual

The ultimate responsibility for right action lies with the individual who will be judged on the Day of Judgement for what he did with his life, regardless of what the governing authorities with their various administrative and municipal agencies and courts of law required of him. Therefore the protection, conservation, and development of the environment and natural resources is a mandatory religious duty to which every Muslim should be committed. This commitment emanates from the individual's responsibility before God to protect himself and his community.

Religious awareness and guidance in this field is necessary so that each individual may take part in the protection and development of the environment and natural resources. Much environmental degradation is due to people's ignorance of what their Creator requires of them. People should be made to realize that the conservation of the environment is a religious duty demanded by God. God has said, "Do good, even as God has done you good, and do not pursue corruption in the earth. Verily God does not love corrupters."¹ "Eat and drink, but waste not by excess; Verily He loves not the excessive."² "And do not follow the bidding of the excessive, who cause corruption in the earth and do not work good."³ "And do not cause corruption in the earth, when it has been set in order."⁴ Any deliberate damage to the natural environment and resources is a kind of corruption which is forbidden by Islam. It is indeed a kind of despicable

foolishness which every Muslim should shun, and which every ruler and every individual should prohibit, especially if it leads to or results in general damage. God has said, "Let there be of you a nation that calls to the good, that establishes right and eradicates wrong. Such are they who shall prosper."⁵

Religious awareness and Islamic guidance should employ all possible means at all levels to call all individuals to commit themselves to Islamic ethics, morals, and manners in dealing with nature, the environment, and the natural resources for their sustainable use and development. All individuals should be reminded of the following religious obligations:

- No wastage or over-consumption of natural resources;
- No unlawful obstruction or destruction of any component of the natural resources;
- No damage, abuse, befoulment or distortion of the natural environment in any way;
- Sustainable development of the earth, its resources, elements, and phenomena through the enhancement of natural resources, the protection and conservation of them and of all existing forms of life, bringing new life to the land through its reclamation, and the rehabilitation and purification of the soil, air, and water.

2. Principles Governing Public Policy and Legislation in Islam

- (a) In Islamic law, God alone is the real owner of the earth and all that it contains. "People do not in fact own things, for the only real owner of things is their Creator, be He glorified and exalted. Indeed, people do not own anything but their usufruct in the manner permitted by the revealed Law."⁶ All properties and resources are held in trust by human beings, to be used only in accordance with their divinely ordained purposes. Therefore, while the right to hold private property is rigorously safeguarded in Islamic law, there are important restrictions on its use.
- (b) Accordingly, principles prohibiting the abuse of rights have been derived from the Prophetic declaration, "There shall be no damage and no infliction of damage." A right shall be exercised only for the achievement of the ends for which that right was created, and a person invalidates his right, if by exercising it he intends to cause damage to another; or if its exercise does not result in any benefit to him but results in damage, even unintentional, to another; or if in spite of bringing benefit to him, its exercise results in excessive damage to another, or in general damage to the community.

- (c) The right to benefit from the essential environmental elements and resources, such as water, rangeland, fire and other sources of energy, forests, fish and wildlife, arable soil, air, and sunlight, is, in Islam, a right held in common by all members of society. Such benefits may be direct, by way of harvesting or extracting the resource, or they may be indirect, by way of access to its products. Each individual is entitled to benefit from a common resource to the extent of his need, so long as he does not violate, infringe, or delay the equal rights of other members. In return for profiting from the resource, he is obliged to maintain its original value; if he causes its destruction, impairment, or degradation, he is held liable to the extent of repairing the damage, because he has violated the rights of every member of society.
- (d) To the extent that a common resource is not sufficiently abundant for everyone to use it freely without impinging on others' rights, the direct rights of usufruct are allocated according to considerations which include the following:
- i) The degree of need; needs are to be distinguished from wants and precisely assessed both quantitatively and qualitatively;
 - ii) The impact on the resource;
 - iii) Investment in the resource by way of work and capital; and
 - iv) Priority of claim in time on the use of the resource.

Finally, rights of usufruct are linked to accountability for the proper use and maintenance or conservation of the resource.

This accords with the fundamental legal principle established by the Prophet Muhammad, upon him be blessings and peace, "The benefit of a thing is in return for the liability attaching to it," and its converse, "Liability for a thing is an obligation accompanying the benefit thereof."

- (e) Islamic law stipulates the interference of the ruling authorities to secure the common welfare and to eliminate injuries to society. This is their original and primary duty. The limits of such interference are defined in Islamic public policy by the ultimate purposes of Islamic legislation as well as by the actual, lawful tasks and responsibilities assigned to them. The basic juristic rule in this connection is "The management of subjects' affairs by the ruler shall be according to their welfare." There is no doubt that a leader's actions become illegitimate and unlawful if they are based on whim or autocracy with no consideration for the common good. The legitimate interference of the governing authorities is aimed at favoring the actual and essential common interests, and at the protection of those interests within the framework of balancing conflicting interests.

- (f) In Islam all acts are evaluated in terms of their consequences as social goods and benefits (*masalih*) and social detriments and evils (*mafasid*). Muslim planners, designers, and administrators must always aim at the universal common good of all created beings. This means that they must strive to harmonize and fulfil all interests. However, when it is impossible to satisfy all immediate interests, the universal common good requires evaluation and prioritization by weighing the welfare of the greatest number, the importance and urgency of the various interests involved, the certainty or probability of benefit or injury, and the ability of those affected to secure their interests without assistance.

The basic principle has been articulated thus:

“What is required is to safeguard all benefits and bring them to perfection, and to eliminate all detriments and minimize them. And if they prove irreconcilable, it is to safeguard the greater good by the exclusion of the lesser, and to remove the greater harm by acceptance of the lesser. This is the mandate of the Law.”

- The interests of the Islamic nation and the society as a whole take priority over the interests of individuals and various groups when they cannot be reconciled. Among the juristic principles of Islamic law are: “Priority is given to preserving the universal interest over particular interests,” and “The general welfare takes priority over individual welfare.” From this basis is derived the principle that “A private injury is accepted to avert a general injury to the public.” Similarly, sacrificing private interest for the purpose of achieving and protecting the common interest of the public is related to the juristic principles that “The lesser of two evils shall be chosen,” “Severe damage shall be removed by means of lighter damage,” and “If one of two opposing detriments is unavoidable, the more injurious is averted by the commission of the less injurious.”
- Social goods or interests are to be assessed according to their importance and urgency. There are necessities (*daruriyat*) which are absolutely indispensable to preserve religion, life, posterity, reason, and property; then needs (*hajiyat*) which if unfulfilled will lead to real hardship and distress; and finally supplementary benefits (*tahsiniyat*) which involve the refinement and perfection of ethics and the enhancement of life. Preference and priority are given to fundamental necessities if these conflict with less acute needs or supplementary benefits. In the same way, preference and priority are given to the lesser needs if these conflict with supplementary benefits.
- Interests differ in degree of actuality and certainty. There are actual or definitely known interests, and projected or probable interests. Priority is to be given to actual or known interests in case of conflict with projected or probable interests of similar importance.

- Consideration is to be given to the abilities of various groups to secure their welfare without the government’s intervention. The governing authorities are obliged to protect and care for the disadvantaged and less influential groups in accordance with the juristic principles that “The averting of harm from the poor takes priority over the averting of harm from the wealthy,” and “The welfare of the poor takes priority over the welfare of the wealthy.”
- Some actions may help to achieve certain interests, but unavoidably bring about damage and destruction of similar or even greater magnitude. The juristic principle in this connection is, “The averting of harm takes precedence over the acquisition of benefits,” for indeed the first step towards the achievement and realization of the common good is to eliminate damage and destruction.

3. The Mandate of the Governing Authorities

The primary duty of the ruler and his assistants, whether they are administrative, municipal, or judicial authorities, is to secure the common welfare and to avert and eliminate injuries to the society as a whole. This includes protection and conservation of the environment and natural resources.

Historically, many of the responsibilities of environmental protection and conservation have come under the jurisdiction of the office of the *hisbah*, a governmental agency which was charged specifically with the establishment of good and eradication of evils. The *muhtasib*, who headed this office, was required to be a jurist thoroughly familiar with the rulings of Islamic law which pertained to his position. He was responsible for the inspection of markets, roads, buildings, watercourses, reserves (*hima*) and so forth. Among his duties were supervision and enforcement of regulations and standards pertaining to safety, hygiene, and cleanliness; the removal and disposal of wastes and pollutants; the prevention and elimination of hazards and nuisances; the protection of reserves (*hima*) from violation and trespass; and the prevention of abuse and ill treatment of animals. He was responsible for assessing damages and imposing fines and other penalties. In addition, he had wide discretionary authority to take necessary measures to ensure the public welfare.

The protection and conservation of the environment and natural resources involves two major aspects:

Remedy of damage; and Prevention of damage.

- (a) The governing authorities have the obligation to take all necessary measures and actions associated with the elimination of existing damage, repair of its effects, and provision of indemnity for it in application of the relevant principles of Islamic

law, including "Damage shall be eliminated," "Damage shall not be eliminated by means of similar damage," "If the original fails, its equivalent shall be resorted to," and "Exigency does not cancel the rights of others."

- The governing authorities have, for instance, the right to hold individuals, organizations, establishments, and companies responsible for the elimination and repair of damage resulting from their activities, enterprises, and projects which, although needed for the welfare of the whole community, may result in damage to the environment and the natural resources. The legal rules in this regard are, "Damage shall be eliminated," and "Damage shall be removed to the extent that is possible."
- The governing authorities have the right and obligation to impose moratoria on various activities, projects, or enterprises if they realize that such activities, projects, or enterprises will result in real damage to the environment that is in excess of or equivalent to the benefits thereof, because "The averting of harm takes precedence over the acquisition of benefits." If, however, the community is in urgent need of some action that may result in certain damage, the need may be considered as a necessity in implementing the principle that "Dire necessity renders prohibited things permissible." In this case, "Damage shall be removed to the extent that is possible," and "Every necessity shall be assessed according to its value." If, the need for such harmful actions vanishes, the authorities should stop them, for "That which is permitted on account of an excuse ceases to be permissible with the cessation of that excuse."
- The governing authorities have the right to hold individuals, organizations, establishments, and companies responsible for the cost of eliminating the damage resulting from their activities, or of rehabilitating areas degraded by them. The juristic rule is "The author of an act is held responsible, even if his act is not intentional." However, individuals, organizations, establishments, and companies should not be held liable for damage that may result from exercising their lawful and legitimate rights in compliance with the terms of their licenses, charters, permits or contracts, and in accordance with correct and recognized practices. For "Legal permission cancels liability," according to the juristic rule.
- The governing authorities have the right to claim damages or idemnity from individuals, organizations, establishments, and companies for irreversible damage to the natural environment resulting from their activities.
- The governing authorities have the right to censure or punish individuals, or the owners of organizations and establishments or their designees, should they infringe or violate the terms of licenses, charters, permits, or contracts deliberately or through evident negligence or violation of the general policies and instructions set forth by the government for the conservation of the natural

environment, its elements, and its resources.

- The governing authorities have the right and obligation to intervene for the protection of animals whenever they are abused; to prohibit their killing by illicit methods or for illicit purposes, and to prohibit undue injury to them. This applies equally to domestic animals and wild animals in captivity, whether in private ownership or in public institutions such as zoos, research institutes, etc. If an animal's owner mistreats it, or fails to provide it adequate maintenance by way of food, water, shelter, and the like, the governing authorities are to compel him to provide for its needs; and if he refuses or is unable to provide and care for it properly, the authorities must compel him to sell it; or he may slaughter it for food if it is of a kind that is lawful to eat.
- (b) The governing authorities have the obligation to take all necessary measures and actions to avoid, prevent, or minimize damage before it occurs in application of the principle "There shall be no damage and no infliction of damage," and the juristic method of obstructing outwardly legitimate means which may serve as pretexts for illegitimate ends.
- The governing authorities have, for instance, the right and obligation to forbid any activity, whether temporary or permanent, that may lead to or result in damage or mischief. No one is entitled to obstruct the community's sustainable use of any of the basic elements or resources of the environment. This applies to air pollution by smoke and harmful fumes from factories, cars, and the like, and to the impairment of water resources through the ruin of public wells, and the depletion of aquifers or their pollution by means of toxic substances that render them unfit for use. It also applies to overhunting, overgrazing, and destruction of valuable habitats and biotopes, deforestation, and any degradation of the natural resources through their misuse or overexploitation.
 - The governing authorities have the right to limit the scope of action, its place, time, kind, and quality so as to prevent, avoid, control, minimize, or limit damage or restrict it to a certain place or time.
 - The governing authorities have the right and obligation to impose specific measures or technical standards and to require particular methods or techniques to prevent the occurrence of damage, or minimize it, or restrict it to the least and narrowest scope possible and with the least possible impact. Experts and specialists in all relevant fields are to be entrusted with determining the appropriate criteria.
 - The governing authorities have the right and obligation to take all measures necessary for the preservation of rare and endangered species of animals and plants and the habitats or biotopes needed for the survival of viable popula-

tions; and to impose sanctions against individuals, establishments, and companies that violate such measures.

- The governing authorities have the obligation to provide guidance and information about all matters upon which the public welfare depends — including the correct and sustainable use of the earth's resources — and to provide encouragements and incentives for beneficial practices.
- The governmental authorities have the right, and in this age of increased human impact, the obligation to take a guiding role in planning the development of the land and sea and the utilization of their natural resources to secure the welfare of created beings and avert injury to them. Such planning should include the preservation of areas of special ecological importance and distinction, as well as the adaptation of development in ecologically sensitive areas to accord with the particular natural constraints, capacities, and characteristics of each area. This requires that all development projects and activities be assessed with regard to their potential benefits and detriments or impacts, both immediate and long-term, prior to their approval. It also requires that if approved, such projects be designed and implemented in such a manner as to minimize harmful impacts and ensure the preservation of ecosystems for the benefit of present and future generations. Such development planning should be accomplished within the framework of the policies and legislative principles discussed above, and the Islamic institutions for conservation and sustainable development as described below.

4. Islamic Institutions for the Conservation and Sustainable Development of Natural Resources ¹⁰

Among the prerequisites for effective conservation of the natural environment are appropriate institutional arrangements by which society may allocate the usufruct of natural resources, by which the users may be made responsible for their proper maintenance, and through which models, encouragements, and incentives are established for their beneficial use and enhancement.

(a) Land reclamation or revival (ihya'al-mawat)

Normally, in Islamic law, any person who brings life to unowned land by undertaking

its cultivation or reclamation or otherwise putting it to beneficial use acquires it as his private property. Only those actions which bring new life to the land confer ownership; mere exploitation does not constitute revival. Ihya' gives people a powerful incentive to invest in the sustainable use of the land to provide for their welfare and the welfare of their families and descendants. However, lands in which development would be injurious to the general welfare are not acquired through ihya'. The governing authorities have the right and obligation to prevent the development of vacant land wherever such development would result in environmental damage, abrogate previously established rights, or remove an indispensable resource from public access. This includes all lands which are set aside as reserves (hima) for the general good, inviolable zones (harim) protecting water resources and other utilities, communal pasturelands and woodlands pertaining to villages, and lands containing resources which are indispensable to the welfare of the community.

- The governing authorities have the right to make grants (iqta') of unowned land for purposes of reclamation such as agriculture, horticulture, building, and other kinds of development, so as to channel such developments to suitable locations and away from unsuitable locations. Land grants may also serve as means of compensation to people whose lands are appropriated for a public good, or in whose lands development is restricted in the public interest. Land grants are subject to the principles that govern ihya': They may not contain resources upon which the public welfare depends. A grant does not in itself confer ownership; only that land which the recipient actually revives becomes his property. Whatever land the recipient fails to develop within a reasonable time returns to its previous unowned state, so that others may benefit from it.
- The governing authorities have the right to institute the lease (ijarah) of state-owned lands or to grant their usufruct (iqta' manfa'at al-ard or iqta' al-istighlal) for the purpose of reclamation, and to specify the kinds of improvements to be undertaken or the crops to be grown, and the management practices and techniques of farming, building, and so forth, to be employed. Long-term leases and grants of usufruct give the recipients an incentive to invest in the sustainable use of the land while making them directly accountable to the authorities which maintain control and supervision over its utilization. Lease and grant of usufruct are well suited for environmentally vulnerable lands which require special management practices.

(b) Reserves (al-hima).

The governing authorities have the right and obligation to establish reserves (hima) for purposes pertaining to the public good, such as the conservation and management of rangelands, forests and woodlands, watersheds, and wildlife. While the Prophet, upon him be blessings and peace, abolished private reserves for the exclusive use of powerful

individuals, he established public reserves in the way of God for the common good, as did the Rightly Guided Caliphs after him.¹¹ The governing authorities should establish such reserves in the most strategic and suitable locations for range enhancement and management, wildlife protection and propagation, woodland preservation and afforestation, and watershed conservation and improvement. Within such reserves development, woodcutting, grazing, and hunting may be prohibited or restricted in accordance with the special purposes of each reserve.

(c) The two inviolable sanctuaries (al-haramaan)

Islamic law defines each of these places as an inviolable sanctuary (haram) within which the injury of wild animals and plants is forbidden.

- The sacred territory surrounding Makkah is a sanctuary for human beings, wildlife, and native vegetation. The Prophet Muhammad, upon him be blessings and peace, declared on the day that Makkah submitted to Islam, "It is sacred by virtue of the sanctity conferred on it by God until the day of resurrection. Its thorn trees shall not be cut down, and its game shall not be disturbed, and the objects lost within it shall be picked up only by one who will announce them, and its fresh herbage shall not be cut." Abbas suggested, "O Messenger of God — except for al-adhakhir (*Cymbopogon schoenanthus*, sweet rush or lemon grass), for it is used by their artisans and in their homes." So the Messenger of God, upon him be blessings and peace, said "Except for al-adhakhir."¹² Strict avoidance of injury to native vegetation and wildlife is possible only through minimization of negative impacts on their environment. All planning, design, and construction within the sacred precincts of Makkah should therefore be carried out with extraordinary sensitivity and care.
- The Prophet Muhammad, upon him be blessings and peace, established a similar sanctuary between the mountains and lava flows surrounding al-Madinah, saying, "Verily Abraham declared Makkah a sanctuary and I declare al-Madinah, that which lies between its two lava flows, a sanctuary; its trees shall not be cut and its game shall not be hunted."¹³ His companion Abu-Hurayrah stated, "Were I to find gazelles in the land between its two lava flows, I would not disturb them; and he (the Prophet) also made the environs of al-Ma-dinah for twelve miles a reserve (hima)."¹⁴

(d) Inviolable zones (al-harim).

Islamic law designates various inviolable zones within which developments are prohibited or restricted to prevent the impairment of utilities and natural resources.

- In Islamic law, every town and village should be surrounded by an inviolable

zone within which the right to acquire vacant land through its development is restricted. These municipal common lands are to be managed by the people of the settlement to provide for their needs such as forage and firewood and the like, and to facilitate their use and development of it in the manner most conducive to their long-term welfare.

- According to Islamic law, sources of water such as seas and lakes, rivers, springs, wells, watercourses, and utilities such as roads and squares should have inviolable zones resembling easements to prevent their impairment, to facilitate their use and maintenance, and to preclude nuisances and hazards. The governing authorities have the right and obligation to prevent the violation of these zones.

(e) Charitable endowments (waqf).

Islam encourages individual Muslims to participate in the conservation and wise development of the environment through various gifts, bequests, and loans. The most important institution of Islamic law in this regard is the charitable endowment (waqf), which constitutes the major avenue for private contribution to the public good. It is related that when the Caliph 'Umar ibn al-Khattab acquired land in Khaybar, he came to consult the Prophet, upon him be blessings and peace, and said, "O Messenger of God, I have acquired land in Khaybar; never have I received property dearer to me than this; so what do you command me to do with it?" And the Prophet, upon him be blessings and peace, replied, "If you wish you may make it an endowment and give its produce as charity." His son, Ibn 'Umar, remarked that "Umar gave it in charity, declaring that it must not be sold or gifted or inherited, and that its yield would be devoted to the poor, to kinsfolk, to the freeing of slaves, for the cause of God, for travellers, and for guests."¹⁵

The waqf may take the form of a land trust dedicated in perpetuity to charitable purposes such as agricultural and range research, wildlife propagation and habitat development, a village woodlot, or a public cistern, well, or garden; or it may take the form of a fund or endowment for the financing of such projects. The governing authorities may set provisions and standards for such waqf lands and funds, and for the qualifications of their managers, so that the benevolent objectives of such projects may be effectively fulfilled.

SECTION FIVE

Conclusions

The conservation of the natural environment is an imperative commanded by God, the Lord and Sustainer of all beings. It is a matter of utmost importance to man, who is its subject, its end, and its means. For protection of the natural environment from abuse by man leads to the welfare of man himself together with the welfare of all other beings created by God. The need to protect the natural environment with all its biological components from the harmful activities of man has existed as long as history has been recorded. However, the problem has been magnified enormously within this century, as man's capacity to affect it has expanded with tremendous speed, while with respect to his responsibility of stewardship on earth, he remains unjust and foolish.

Now, more than ever before, we witness in the accelerating degradation of our environment God's warning, "Corruption has appeared in the land and sea for that which the hands of men have earned, that He may make them taste some part of what they have wrought, in order that they may return."¹ Should we fail to return to the responsible and sustainable use of the earth, we may expect the fate of others who caused corruption in the earth: God has declared, "How many a population have We destroyed that was wanton with its means of livelihood! There are their dwelling-places, undwelt in after them, all except for a few; and We are the Inheritors."² "How many were the gardens and springs that they left behind, the fields and noble sites, and the pleasant things in which they took delight! So it was — and We made it an inheritance for other folk. Not heaven nor earth did weep for them, nor were they reprieved."³

The remedy lies in the direction and guidance of man and society, their values, laws, institutions, and actions. Short-sighted materialism with its focus on narrow short-term interests is at the root of our affliction. For technological progress should never be achieved at the expense of man's health, happiness, or livelihood. Similarly, we should never sacrifice the coming generations to achieve any material or economic benefit with uncertain consequences, for the sake of the contemporary generation's gain. Likewise, we should never extirpate any species of God's creatures from the face of the earth or wreck irreparable damage to the life-sustaining ecosystems of the planet.

The all-inclusive approach of Islam to man, without any discrimination based on time, age, place, or race; and Islam's all-inclusive approach to the universe, regarding the welfare of the whole without excluding from consideration any of its parts, is the essence of the ecological consciousness that is so sorely needed for our deliverance. Indeed the fundamental criterion for all development and conservation of the environment

in Islam is to best serve the Creator by realizing the greatest good to His creatures.

It is a distinctive characteristic of Islamic law that it aims explicitly at the universal common good of all created beings. This reflects a conviction that the best interests of all species, generations, peoples, regions, and individuals are ultimately in harmony and not in conflict, in the scheme of God, The Almighty, All Knowing.

Accordingly, Islam promotes emphatically all measures that lead to the realization of the common good and make it a tangible reality. In this light, it is imperative that the following principles be taken into consideration.

1. The conservation of the natural environment is a moral and ethical imperative. Environmental problems cannot be solved through knowledge and technology alone. Enlightened self-interest does not motivate people to do more than is convenient and profitable for themselves. Only moral conviction and ethical consciousness — on both individual and social levels — can motivate people to forego some of the short-range profits of this life, and to make personal sacrifices for the common good. It is only when our ethical horizons extend to embrace not only mankind but all generations and all created beings, that we can perform the noble role of stewardship on earth for which God created us.
2. Ethical teachings should be backed with legislation and effective enforcement of injunctions and prohibitions. While some people respond to their nobler ethical instincts, others fail to rise above their most petty and selfish desires. Appeals to conscience without positive inducement and enforcement put those who respond with self-restraint at a disadvantage with respect to those who exceed the bounds of fairness and infringe the rights of others as they please. Moreover, people know their own needs and interests and their associates' needs and interests far better than they can know the competing needs and interests of other peoples and social groups; thus even their moral impulses can work against the common good. The force of law and political authority are therefore indispensable to bring about justice and equity in the allocation and distribution of natural resources and in implementing the measures required for the protection and conservation of the earth and what it contains.
3. Through the institutional arrangements of society, conservation should be integrated with ecologically sustainable development. Conservation divorced from sustainable development is neither socially acceptable nor economically viable. People's rights to harvest and extract the natural resources on which society depends should be allocated according to the effort they invest in the beneficial use and conservation of these resources, and linked to accountability for the way they use these common assets of society. The right to use a resource sustainably for profit provides an incentive to reinvest in its conservation and enhancement. Similarly, the economic benefits of the conservation of a resource should return to

those people who have borne the cost of its conservation.

4. Scientific and technical knowledge of the natural environment and the means of its conservation should continually be improved and developed through ongoing scientific research and monitoring. Accurate information is indispensable to make enlightened decisions for the conservation of the natural environment, to avoid acts that lead to its degradation, and to rectify damage that already has occurred. Such information should be disseminated as widely as possible and incorporated into extension services and basic education in the schools and universities so as to enable the public to participate fully in the conservation of the environment.
5. The development of the earth, in order to be ecologically sustainable, should be planned and carried out in accordance with the natural constraints, ecological values and sensitivities, and inherent suitabilities of its various localities. Planning for development should in every case include analysis of environmental impacts, and be designed to minimize damage to the natural environment and depletion of natural resources. Due consideration of all aspects of the environment, including science, health, and natural beauty, should be emphasized throughout every development project.
6. Developmental actions and projects undertaken in one country should not lead to any kind of damage, harm, or degradation in the natural environment of another country. Private or local progress should not be achieved through the injury of others, or by any means that leads to their injury.
7. The natural environment and natural resources should not be subjected to any irreparable damage for the purpose of military or hostile actions.

In view of the aforementioned, the teachings of Islam promote all endeavors, whether local, regional, or international in scope, and call for the joining of concerted efforts in all fields to conserve, protect, and rehabilitate our natural environment. The challenge that faces us is unprecedented in its magnitude, and to meet it requires an enormous mobilization of resources, sound strategies, and resolute action, so that we may, God willing, maintain and perpetuate a good and prosperous life for the present and future generations of mankind and all created beings.

And our final word is, Praise be to God, the Lord and Sustainer of all being.

Notes

SECTION ONE

1. Qur'an: Surat al-Qamar (54), ayah 49.
2. Qur'an: Surat ar-Ra'd (13), ayah 8.
3. Qur'an: Surat al-Hijr (15), ayah 19.
4. Qur'an: Surat an-Nur (24), ayah 41.
5. Qur'an: Surat Ta Ha (20), ayahs 53-54.
6. Qur'an: Surat ad-Dukhan (44), ayahs 38-39.
7. Qur'an: Surat al-An'am (6), ayah 95.
8. Qur'an: Surat Al-Mulk (67), ayahs 1-2.
9. Hadith related by al-Bayhaqi in *Shu'ab al-Iman*, and by al-Khatib at-Tabrizi in *Mishkat al-Masabih* on the authority of Anas and 'Abd-Allah ibn Mas'ud, with a transmission of weak authority.
10. Hadith of sound authority, related by Muslim on the authority of Abu Sa'id al-Khudri.
11. Qur'an: Surat Fussilat (41) ayah 10.
12. Qur'an: Surat Hud (11), ayah 61.
13. Hadith of sound authority, related by al-Bukhari and Muslim on the authority of Anas.
14. Hadith related by the Imam Ahmad in the *Musnad*, and by at-Tabarani in *al-Mu'jam al-Kabir*, on the authority of Abu ad-Darda', with a reliable chain of transmission.
15. Hadith of sound authority, related on the authority of Anas ibn Malik by the Imam Ahmad in the *Musnad*, and by al-Bukhari in *al-Adab al-Mufrad*, and by Abu-Dawud at-Tayalisi in his *Musnad*.
16. Athar related by Yahya ibn Adam al-Qurashi in *Kitab al-Kharaj*, on the authority of Sa'id ad-Dabbi.

SECTION TWO

1. Qur'an : Surat Ibrahim (14), ayahs 32-34.
2. Taqi ad-Din Ahmad ibn Taymiyah, in *Majmu' al-Fatawa*.
3. According to Islamic jurisprudence, a valid analogical ruling must normally be based on a definable objective cause ('illah; in this case the fact that every created being is a sign of its Creator), rather than being based directly on an underlying value and reason (hikmah; in this case the beneficial functions of

- every created being). This is because the hikmah is harder to define and specify.
4. Qur'an: Surat al-Anbiya' (21), ayah 30.
 5. Qur'an: Surat al-Baqarah (2), ayah 164.
 6. Qur'an: Surat al-An'am (6), ayah 99.
 7. Qur'an: Surat al-Hajj (22), ayah 5.
 8. Qur'an: Surat al-Furqan (25), ayahs 48-49.
 9. Qur'an: Surat al-Waqi'ah (56), ayahs 68-70.
 10. Qur'an: Surat al-Mulk (67) ayah 30.
 11. Qur'an: Surat al-Anfal (8), ayah 11.
 12. Qur'an: Surat an-Nahl (16), ayah 14.
 13. Qur'an: Surat al-Ma'idah (5), ayah 96.
 14. Qur'an: Surat al-Qamar (54), ayah 28.
 15. Hadith related by Abu-Dawud, Ibn Majah, and al-Khallal.
 16. Hadith related by the Imam Ahmad in the *Musnad* and by Ibn Majah on the authority of 'Abd-Allah ibn 'Amr, with a transmission of weak authority.
 17. Qur'an: Surat al-Hijr (15), ayah 22.
 18. Qur'an: Surat al-Baqarah (2), ayah 164.
 19. Qur'an: Surat al-A'raf (7), ayah 57.
 20. Qur'an: Surat ar-Rahman (55), ayah 10.
 21. Qur'an: Surat ar-Rum (30), ayah 20.
 22. Qur'an: Surat Nuh (71), ayahs 17-18.
 23. Qur'an: Surat Nuh (71), ayahs 19-20.
 24. Qur'an: Surat al-Mursalat (77), ayahs 25-27.
 25. Qur'an: Surat an-Nazi'at (79), ayahs 30-33.
 26. Qur'an: Surat al-Hijr (15), ayahs 19-20.
 27. Qur'an: Surat Ya Sin (36), ayahs 33-35.
 28. Hadith of sound authority, related by al-Bukhari, Muslim, and at-Tirmidhi, on the authority of Jabir ibn 'Abd-Allah and others.
 29. Qur'an: Surat 'Abasa (80), ayahs 24-32.
 30. Qur'an: Surat al-Waqi'ah (56), ayahs 71-73.
 31. Qur'an: Surat al-An'am (6), ayah 38.
 32. Qur'an: Surat al-Hajj (22), ayah 18.
 33. Qur'an: Surat al-Isra' (17), ayah 44.
 34. Qur'an: Surat ar-Ra'd (13), ayah 15.
 35. Qur'an: Surat al-Anbiya' (21), ayah 107.
 36. Hadith related by Abu-Dawud and at-Tirmidhi on the authority of 'Abd-Allah ibn 'Amr.
 37. Hadith of sound authority, related by al-Bukhari and Muslim on the authority of 'Abd-Allah ibn 'Umar and Abu-Hurayrah.
 38. Hadith of sound authority, related by al-Bukhari and Muslim on the authority of Abu-Hurayrah.
 39. Hadith on sound authority, related by al-Bukhari and Muslim on the authority of 'Abd-Allah ibn 'Umar.

40. Hadith of sound authority, related by al-Bukhari and Muslim on the authority of 'Abd-Allah ibn 'Umar; and hadith related by Abu-Dawud on the authority of 'Abd-Allah ibn 'Abbas and Abu-Hurayrah.
41. Hadith of sound authority, related by Muslim and Abu-Dawud on the authority of Shaddad ibn Aws.
42. Hadith of sound authority, related by al-Bukhari and Muslim and others on the authority of Abu-Hurayrah.
43. Hadith related by Abu-Dawud on the authority of 'Amir ar-Ram.
44. Hadith related by Abu-Dawud on the authority of 'Abd-Allah ibn Hubshi.
45. Qur'an: Surat al-Baqarah (2) ayah 205.
46. Muwaffaq ad-Din 'Abd-Allah ibn Qudamah, in *al-Mughni*.
47. 'Izz ad-Din ibn 'Abd as-Salam, in *Qawa'id al-Ahkam fi Masalih al-Anam*. This passage falls within a discussion of huquq al-'ibad, the rights or legal and moral claims of human beings and other creatures upon each legally responsible person. The rights or legal claims of animals are less comprehensive than those of man, and are subject to limitations such as the defense of human life and property and the requirements of human beings for food. It is, however, significant that in Islam the concept of rights or legal claims enforceable by law applies to animals as well as human beings.

SECTION THREE

1. Hadith related by the Imam Malik in the *Muwatta'* with an incomplete transmission; and by al-Hakim in *al-Mustadrak* with a complete chain of transmission; and he described it as of sound authority on the conditions of Muslim. This and subsequent legal principles are well known, and unless otherwise referenced, are found in the books of *al-Ashbah wa 'n-Naza'ir* by Jalal ad-Din 'Abd ar-Rahman as-Suyuti and Zayn al-'Abidin ibn Nujaym, and in the *Majallat al-Ahkam al-'Adliyah*.
2. Ahadith related by Abu-Dawud and others, on the authority of Mu'adh, Abu-Hurayrah, and 'Abd-Allah ibn Sarjis.

SECTION FOUR

1. Qur'an: Surat al-Qasas (28), ayah 77.
2. Qur'an: Surat al-A'raf (7), ayah 31.
3. Qur'an: Surat ash-Shu'ara' (26), ayahs 151-152.
4. Qur'an: Surat al-A'raf (7), ayahs 56.
5. Qur'an: Surat Al-Imran (3), ayah 104.
6. Abu 'l-Faraj 'Abd ar-Rahman ibn Rajab, in *al-Qawa'id*.
7. Hadith of sound authority, related by at-Tirmidhi and Abu-Dawud on the authority of 'A'ishah.

8. Taqi ad-Din Ahmad ibn Taymiyah, in *as-Siyasat ash-Shar'iyah*.
9. 'Izz ad-Din ibn 'Abd as-Salam, in *Qawa'id al-Akham fi Masalih al-Anam*.
10. These institutions are described under the relevant chapters of every manual of Islamic law (fiqh).
11. These himas are mentioned by the Imam ash-Shafi'i in *Kitab al Umm* and by Muwaffaq ad-Din 'Abd-Allah ibn Qudamah, in *al-Mughni*, as well as in other sources.
12. Hadith of sound authority, related by al-Bukhari and Muslim on the authority of 'Abd-Allah ibn 'Abbas.
13. Hadith of sound authority, related by Muslim on the authority of Jabir ibn 'Abd-Allah.
14. Hadith of sound authority, related by Muslim on the authority of Abu Hurayrah.
15. Hadith of sound authority, related by al-Bukhari and Muslim on the authority of 'Abd-Allah ibn 'Umar.

SECTION FIVE

1. Qur'an: Surat ar-Rum (30), ayah 41.
2. Qur'an: Surat al-Qasas (28), ayah 58.
3. Qur'an: Surat ad-Dukhan (44), ayahs 25-29.

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Dr. Abubakr Ahmed Bagader
Dr. Abdullatif Tawfik El-Chirazi El-Sabbagh
Dr. Mohamad As-Sayyid Al-Glayand
Dr. Mawil Yousouf Izzi-Deen Samarrai

en collaboration avec

Othman Abd-ar-Rahman Llewellyn

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