Guardianship of the Environment: An Islamic Perspective in the Context of Religious Studies, Theology, and Sustainable Development

Azizan Baharuddin

This essay will address the topic of environmental guardianship by first stressing the need for religious studies and theology to reinvigorate their role in the context of sustainable development, and to find their way into other disciplines' ethical bases in economic and sociocultural terms. I begin from the premise that, just as the physical basis for any society is its bricks and mortar, so too in the human and social dimension of life there is a need to strengthen the belief and values basis. Guardianship as a value or belief is manifested in action in the form of sustainable development.

The Role of Philosophy

Philosophy of religion can be used in two ways: as an exercise in philosophy with religion as the subject; or as an exercise in religion where philosophy is used as an intellectual tool.¹¹¹ Philosophy is critical because it asks the questions that need to be asked if religious studies and theology (and guardianship of nature is one important aspect of theology) are to really succeed in exploring the concept of sustainable development and the most recent elaboration of sustainable development objectives, as seen, for example, in the Earth Charter (2000).¹¹² Philosophy can help explain the ethical foundation of principles for sustainable development, or it can help us put into religious studies the idea of sustainable development. Likewise, the idea of guardianship of nature is the foundational principle of the Earth Charter, and sustainable development can be shown to be one goal of religious instruction. Examples of questions that philosophy poses are, What do we mean? What are our reasons? What lies behind? What are the implications? Such questions help construct a much-needed dialogue that leads to the mutual understanding and mutual borrowing that need to take place between the various disciplines currently understood as being embraced by sustainable development: economic, environmental, social, cultural.¹¹⁸ Such mutual borrowing is explained in terms of transdisciplinarity, as described by Basarab Nicolescu, which can lead to a fusion of horizons between religion and science, economics, and other fields.¹¹⁴

The term "philosophy" derives from the Greek *philo-sophia*, which means the love of wisdom, *hikma*: knowledge of the proper place for everything. The quest for wisdom, which cannot be divorced from the truth—*haqq*, one of the names of God—is at the heart of the religious impulse. Humanity has forever been looking beyond itself to find answers about itself: Where have we come from? Where are we going? How should we live? While philosophy asks the big questions, religion provides us with the grand narratives as answers, or at least clues. Philosophy also has to ask probing, critical, and analytical questions, and so the search for wisdom leads to the realm of empirical and experimental investigation and the rise of the sciences. In the Islamic perspective, philosophy (speculative) and science (empirical) are necessary for the believer to reach and to explain the religious state. In fact, the first two are subsumable under religion, which in Islam is called *dm*, a total way of life consisting of the physical, mental, social, and spiritual. This idea is also seen in Muhammad Iqbal's description of the four phases of the religious state of belief: blind following, questioning, exploration and experience, witness and acceptance.¹⁵

The evolution of the religious consciousness from the first of these stages to the fourth requires the believer to have knowledge and experience of nature and life. This holistic approach to religion, and the comprehensive solutions and guidance it is supposed to offer, must make practitioners of religious studies today aware of the gap between ideal and reality in understanding, manifesting, and practicing religion.¹¹⁶ For example, in explaining the relevance of religion in today's world, many Muslim believers may not really understand, or are not able to articulate, the significance either of the finality of the prophethood of their prophet or the actual "modernness" of their religion as implied by the concept of the Islamic city *(madına)*. These statements are not meant to be part of an apologetic stance but can be linked to the most recent discourses about the nature of reality currently actively pursued in the Western and "modern" or postmodern world.

It is critical to begin with this introduction for a number of reasons. To many in the West, I may be seen to represent a non-Western, non-Christian, non-modern worldview. Therefore, it is imperative for me to share with the Western as well as the Islamic worlds the historical fact that Islamic civilization shares some elements of its origin in the Greek heritage as well as in Judeo-Christian concepts of the divine.¹¹⁷ The gap between Islamic and Western worlds should not be seen as an insurmountable obstacle to fruitful dialogue, including civilizational dialogue on guardianship of the environment as a means to learn something new and to grow because of that new understanding.¹¹⁸ This dialogue is critically necessary today in the context of sustainable development because the gap in relationship between man and nature lies at the heart of the religious worldview.

The Earth Charter and the Unity of Humanity and Nature

At the heart of the environmental crisis is humanity's spiritual crisis.¹¹⁹ It is high time now that, despite the successes of materialistic science, we build a unity of knowledge and understanding as the basis of a more holistic (incorporating science, religion, and philosophy) worldview and actions. This is what the Earth Charter is asking us to do for the sake of our future. It clearly sends out a message to the fragmented components of our lost humanity:

We stand at a critical moment in Earth's history, a time when humanity must choose its future. As the world becomes increasingly interdependent and fragile, the future at once holds great peril and great promise. To move forward we must recognize that in the midst of a magnificent diversity of cultures and life forms we are one human family and one Earth community with a common destiny. We must join together to bring forth a sustainable global society founded on respect of nature, universal human rights, economic justice and a culture of peace. Towards this end, it is imperative that we, the people of Earth, declare our responsibility to one another, to the greater community of life and to future generations.¹²⁰

In Islamic teaching, the destiny of the earth and its communities is linked to the core principle of the religion: affirmation of *tawhid*, the unity of God. *Tawhid* also implies the idea of the unity of nature, man, and the Creator contained in the first *shahada* or Islamic witness: *La ila ha illa Llah*. This also implies the interrelatedness of all things in the natural world, and between that world and God. Muslim scientists see that nature as a whole exhibits and contributes toward such a unity

since its constituent parts are related to each other in numerous ways and through numerous laws. In their practice of science they discover that the more they come to know nature, the more glaring is the truth of the unity of nature; *tawhid* inspires science, and science affirms *tawhid*.¹²¹

The charter also reminds us of "our responsibility to one another." In regard to the diversity of human beings, the Qur'an tells us: "O mankind! Lo! We have created you male and female, and have made you nations and tribes that ye may know one another. Lo! The noblest of you in the sight of Allah, is the best in conduct. Lo! Allah is Knower, Aware."¹²² Other faith communities also agree that morality consists in conduct that gives practical expression to ethical values, which as a product of religious studies and theology are critically required as the engine of sustainable development today.

The Challenges Ahead

The Earth Charter describe the challenge that lies ahead as:

The choice is ours: form a global partnership to care for Earth and one another or risk the destruction of ourselves and the diversity of life. Fundamental changes are needed in our values, institutions, and ways of living. We must realize that when basic needs have been met, human development is primarily about being more, not having more. We have the knowledge and technology to provide for all and to reduce our impacts on the environment. The emergence of a global civil society is creating new opportunities to build a democratic and humane world. Our environmental, economic, political, social, and spiritual challenges are interconnected, and together we can forge inclusive solutions.¹²⁰

In Malaysia, the concept of a civil society, or *Masyarakat Madani*, was actively debated and pursued in the 1990s. Today the trend continues with the policy of *Maqasid al-Shari'a*, which strives to harmonize religion and development as espoused by the *Qur'an*: "Seek the bounty of Allah and celebrate the praises of Allah often; that ye may prosper."¹²⁴ I offer some ideas that could be part of the inclusive solutions being sought in the universal responsibility mentioned in the Earth Charter toward the emergence of a global civil society without loss of integrity and cultural independence.

We must decide to live with a sense of universal responsibility, identifying ourselves with the whole earth community as well as with our local communities. The spirit of human solidarity and kinship with all life is strengthened when we live with reverence for the mystery of being, gratitude for the gift of life, and humility regarding humanity's place in nature. We urgently need a shared vision of basic values to provide an ethical foundation for the emerging world community. In what follows I show how the ideas highlighted in the Earth Charter quotation are indeed fundamental elements of the Islamic *Weltanschauung*. Part of this elaboration I have already described through the concept of unity, *tawhid*.

Gratitude for the Gift of Life

S. M. N. al-Attas explains the concept of religion *(dm)* in Islam as connoting indebtedness, submissiveness, judicious power, and natural inclination or tendency. *Dana*, derived from *dm*, gives the meaning of being indebted. When we are in a state of debt, we are a *dayn* who has to follow the laws and ordinances governing such debts. A person in debt is also a *dayn* because he is under obligation to a ruler or governor, a *dayyan*. *Dana* is also connected to *madanna*, which means to build or found cities; to civilize, humanize, refine. From *maddana* in turn arise the concepts of *maduna*, the city, and *tamaddun*, civilization.¹²⁵

In the context of environmental ethics or guardianship of nature and sustainable development, the concept of *dun* implies that humans are indebted to the Creator for their existence to begin with, and that they already acknowledged God as their Creator the moment their souls were created. Al-Attas explains that the nature of this debt of creation and existence is so total that "at the instance he is created and given existence, man is in a state of utter dependence because 'he' (*Adam* means 'no' 'thing') really possesses nothing himself; which means everything in him, from him and about him is what the creator (who owns everything) owns. This also means that mankind is totally dependent for his sustenance on the sustainer of Life Himself."¹²⁶ This is explained further in the *Qur'ar*. "When thy Lord drew forth from the children of Adam—from their loins—their descendants, and made them testify concerning themselves (saying): 'Am I not your Lord?'—They said—'Yes! We do testify."¹²⁷

Because he owns nothing, man can only repay his debt with the only thing that is his, namely his consciousness. It is through this consciousness that he "returns" himself to the Creator, who owns him absolutely. This is why in Islam dhikr, or "remembrance," is so crucial. It is the means for "returning," and hence for attaining *hikma*—"wisdom". *Hikma* underlies man's thoughts, intentions, decisions, and actions, the sum total of which is *'ibada*, service or good works—the original reason for man's creation.

To be of service or do good works, man needs nature or the environment; the *Qur'an* explains that this has been made malleable for him *(taskhur)*. The environment is the theatre for his *'ibada*. For example, to perform the *zakat* (tithe¹³⁸), man needs to have worked the environment by farming, cultivation, and so on, and for this he must possess scientific and technological knowledge and skills for the "what" and "how" of his use of nature. Nature is not his but is given to him only for his sustenance, comfort, and entertainment as a trust *(amana)*. His relationship to nature is in the capacity of *khalifa* or vicegerent.¹²⁹

This state of being in which man gives back to God does not mean that man is in some kind of state of unhappiness as a slave because it is in submission that man actually becomes what his inherent nature truly is. In submitting, man returns to his true nature in which he finds peace and happiness *(salam)*. His "returning" is in fact a gain. This is the state of being of the *khalifa*, the "slave" who is paradoxically vicegerent of the Almighty, microcosm of the macrocosm. He who enslaves himself gains. "Who is he that will loan to Allah a beautiful loan, which Allah will double unto his credit and multiply many times?"¹⁸⁰

In the Islamic context at least, one of the basic challenges for religious studies is to show the contemporary relevance of the paradoxical position of man as slave of God yet also God's vicegerent. Nature is made malleable for him *(taskhur)*, yet he must not transgress the boundaries of what is good *(halal)* and harmful *(haram)*, what is just (*'adl*) and unjust *(zulm)*. These and other values are all part of *maqasid al-shari'a*, the "beneficial objectives" of the *Shari'a*, regulations prescribed by revelation.

The *"halal-ness"* or *"haram-ness"* of a thing or act is actually explicable from the components and processes of nature or society studied through the natural and human sciences. As such, the ethics underlying sustainable development need to be explained through both science and religion, with philosophy providing tools for connecting the two and articulating the arguments and principles arising out of their harmonization. This exercise of explaining revelation by using scientific facts is also called theology of nature, a kind of dialogue between science and religion.¹⁸¹

In using resources, in treating the environment in ways that ensure balance, peace, and sustainability, humans enslaves themselves to God in order to fulfill his commands and ordinances— "debtors," as the somber religious language describes it—to fulfill their guardianship of nature. God has not created the environment, nature, and the universe for nothing but to enable humans to do good works; in submitting, humanity intrinsically becomes "environmentally ethical," being "best in conduct." Through this "enslavement," which means being ethical and respectful of nature's ways, humans operationalize their God-given power judiciously and eventually go on to build cities. Through guardianship, humanity attains to great heights of civilizational achievement:

And He it is who created the heavens and the earth . . . and His throne was upon the water that He might try you, which of you is best in conduct.¹⁸²

Lo! We have placed all that is in the Earth as an ornament thereof that we may try them: which of them is best in conduct.¹⁸³

Misconceptions Regarding the Idea of Khilafa

Lynn White Jr. once wrote that it was the concept of the vicegerency or stewardship of humanity in the Christian (and, by implication, the Islamic) worldview that was responsible for the anthropocentric attitude to nature that gave rise to the environmental crisis.¹³⁴ In the Islamic tradition, as mentioned earlier, nature has indeed been made malleable for humanity (*taskhir*):¹³⁵

See ye not how Allah hath made serviceable unto you whatsoever is in the skies and whatsoever is in the earth and hath loaded you with His favours both without and within? Yet of mankind is he who disputeth concerning Allah, without knowledge or guidance or a Scripture giving light.¹⁸⁶

Hast thou not seen how Allah hath made all that is in the earth subservient unto you? And the ship runneth upon the sea by His command, and He holdeth back the heaven from falling on the earth unless by His leave. Lo! Allah is, for mankind, Full of Pity, Merciful.¹⁸⁷

Despite this "power", humanity is not to transgress boundaries, as explained by the science of ecology, nor to abuse nature; hence, White's claim would be contested by Muslims. To behave in an ethical manner toward the environment is in a sense what guardianship means. In the Islamic perspective, it means that humans are fulfilling the purpose of their existence, which is to serve their Creator. In so doing, they achieve happiness, as they are naturally inclined to do. This natural inclination—connected to his natural human habits, dispositions, customs, ethics, *dm*—is also called *fitra*, the pattern of God's way (*sunnat Allah*) of creating things. This "way" is indeed what is meant by the Shari'a of God. Behaving in accordance with *fitra* and Shari'a results in harmony; it is the realization of what is actually intrinsically in one's true nature. Shari'a is cosmos (order) as opposed to chaos, justice as opposed to injustice; justice exists when something is where it belongs.¹⁸⁸ Could sustainable development ultimately mean, then, that humans will discover their true states and beings as well as nature's true state and being, and that humans will live in accordance with this knowledge? Hazel Henderson and Daisaku Ikeda, both champions of the Earth Charter, may agree when they express their hope for the fostering of leaders for the creative coexistence of nature and humanity through education.¹⁸⁹

Fitra and justice intrinsically reside in nature, and humans witness to these while doing their science. The poet-philosopher Muhammad Iqbal said that in his studying of nature, the scientist is actually in a state of contemplation and worship.¹⁴⁰ In this regard we are reminded of the Qur'anic verses that speak of all creatures as "glorifying God in their own ways" according to their own natures. Interpreters have taken the latter to be the creatures' spiritual acts of glorifying (*tasbuh*), praising (*tahmud*), prostrating (*sujud*) and praying (*salat*) to Him.¹⁴¹ As such, before environmental ethics can be clearly expounded, ecological knowledge needs to be grasped through scientific observation, an exercise emphasized by the Qur'an. Observing nature to understand creation and thence the revelation of God is an exercise called a theology of nature, the understanding of revelation by using scientific knowledge. God "hath created the seven heavens in harmony. Thou canst see no fault in the Beneficent One's creation; then look again: Canst thou see any rifts?"¹⁴²

This is also part of the meaning of submission (*islam*). Submission does not mean the loss of freedom because in fact it is freedom to live according to the demands of one's true nature, to be at one with life, which has no beginning, no end, and encompasses the seen (*zahir*) and the unseen (*batin*). In this way, God has created all things to distinguish truth from falsehood, right from wrong, and to set out a clear ethic, the realization of which can be seen as sustainable development: "And we created not the heavens and the earth, and all that is between them in play. We created them not save with truth; but most of them know not."¹⁴⁹

Sources Regarding the Environment

The Qur'an is the most important source regarding the environment. It speaks about the cosmos, humanity, and the world of nature, all together participating in the process of revelation that is ongoing. It points to the cosmos as God's revelation, taking place in the form of the phenomena of nature including the processes in leaves, the faces of mountains, the features of animals, and the sounds of winds and flowing rivers. Every natural phenomenon even events in the soul, is a sign (aya) of the God.¹⁴⁴

Other sources and teachings on the environment include the *ahadith* (sayings and acts of the Prophet) regarding treatment of the environment; the injunctions made concerning the environment pertaining to water, soil, animals, and plants; and texts on Islamic ethics that touch upon human passions that can affect the environment. Moreover, Islamic philosophy and theology of nature are expressed in art, architecture, landscaping, and urban design. Forms of Islamic literature such as poetry also played an important role, for example among the intellectual elite of the so-called Golden Age in Andalusia (ninth to eleventh centuries).¹⁴⁶ In this context, S. H. Nasr quotes the famous Sufi poet Sa'dı:

I am joyous in the world of nature For the world of nature is joyous through Him, I am in love with the whole cosmos For the whole cosmos comes from Him.¹⁴⁶

Likewise, various literatures of the Islamic people ranging from Arabic, Malay, and Persian to Bengali and Swahili contain a vast wealth of material on the Islamic view of the relationship between man and the environment. In my own Malay-Muslim community, social wisdom is embodied in proverbs and poetic rhymes articulating principles, instructions, and guidance influenced by a religious ethic (*adab*).¹⁴⁷ By drawing analogies with the perceived behavior of nature's flora and fauna, these proverbs express an ethic (*adab*) pertaining to different situations in life faced by the individual, and they teach lessons to be learned.

Applying Religion for Sustainable Development: A Case Study of Ijtihad

The example of Umer Chapra shows that a creative interpretation of religious injunctions is possible in the area of sustainable development. Chapra has been economic adviser to the government of several Muslim countries and has written extensively on Islamic economics and finance. His most important work is *Towards a Just Monetary System: A Discussion of Money, Banking, and Monetary Policy in the Light of Islamic Teachings.*¹⁴⁶ He is a Muslim economist who seems confident enough in what Islam has to offer to be able to explain at length how economics, development, and religion might interact. His ideas are also set out in a work titled *Islam and the Economic Challenge*. In the context of today's economic uncertainties, Chapra earnestly appeals to Muslim countries to try out what he calls the goals of the Sharı'a (*maqasid al-sharı'a*) as a means of avoiding disintegration—an example of which is offered by events in Indonesia several years ago, sparked by the currency and debt crisis that hit all the economies of Asia. The people—many poor and jobless—demanded removal of their leaders through mass demonstrations. Observing the huge disparities in wealth between the various sectors of Indonesian society, they understandably felt that their leaders were corrupt and thought only of themselves. The leaders were seen to have forgotten their duties as vicegerents (*khahfa*) of God because they neglected the poor.

The goals of the Sharı'a is, first of all, human well-being (*falah*) and the good life (*hayat tayyiba*). To Chapra, the Sharı'a is the basis of development because, in its emphasis on socioeconomic justice, it aims to satisfy both the spiritual and the material needs of human beings. Chapra derives inspiration from al-Ghazali, whom he quotes as saying: "the very objective of the Sharı'a is to promote the welfare of the people, which lies in safeguarding their faith, their life, their

intellect, their posterity and their wealth. Whatever ensures the safeguarding of these five serves public interest and is desirable: and taking care of the environment is linkable to all the five objectives of shari'a."¹⁴⁹

Chapra also agrees with al-Ghazali in putting faith at the top of the list of the *maqasid* because it is the most crucial ingredient in human well-being. Faith places human relations on a proper foundation, enabling human beings to interact in a balanced and mutually caring manner for the well-being of all. Faith also acts as a moral filter to keep the allocation and distribution of resources in line with requirements for unity and socioeconomic justice. Without the element of faith in human economic decisions—in the household, the corporate boardroom, the market—we cannot possibly realize efficiency and equity or avoid macroeconomic imbalances, economic instability, crime, conflict, and the many symptoms of anomie.

Chapra emphasizes that if we are to achieve equilibrium between scarce resources and the various claims on those resources, we need to focus on human beings rather than on the market or the state. It is imperative, therefore, to reinstate the human being as the foundation of the economic system. Humans must be motivated to pursue self-interest within the constraints facing the world. Truly believing in the possibility of a just and sane economic system, Chapra sets out the various stages for achieving such a system.

Like others, Chapra begins with a critique of the present situation followed by a reevaluation of principles embedded in the religious metaphysics of Islam. Using the three fundamental principles of *tawhid* (unity), *khilafa* (vicegerency, trusteeship), and *'adl* or *'adala* (justice), he describes a strategy for a more enlightened economic system. In his treatment, he deals with all the details and complexities of the modern economic system and integrates religious principles and economics throughout.

Chapra speaks of *tawhid*, *khilafa*, and *'adala* as being connected with and translatable into ideas about universal fellowship, resources as a trust, humble lifestyles, human freedom, needs fulfillment, and equitable distribution of income and wealth, growth, and stability. He suggests reviving systems laid out in the Qur'an, such as the *zakat* (tithe) system, and other principles pertaining to wealth. He deals clearly with an entire complex of ideas, starting with the role of the *'ulama'* (clergy), the restructuring of policies, land and labor reforms, education and training, access to finance, and the size of land holdings, and, moving then to the restructuring of the financial and investment systems, just and efficient taxation, tariffs and import substitution, and priorities in spending.

Chapra concludes his treatise by reiterating that imbuing economics with religious values would imply a serious effort to raise (along Islamic lines) the spiritual and material well-being of all people. On the spiritual side, inner happiness can be achieved only by drawing nearer to God. On the material side, Islamization requires the just and efficient allocation of resources so that the good life (*hayat tayyiba*) can be achieved. Islamization is not necessarily against economic liberalization; rather, it involves passing public—and private—sector economic decisions through the filter of moral values before they influence the market. Without the integration of science, religion, and development, it would be impossible for Muslim countries to achieve development that is

sustainable. Chapra observes, however, that policymakers have yet to be convinced to translate Islam's economic ideals into development policies. This is an urgent and arduous task, and the signs of the times have to be read quickly.

Conclusion

It is imperative that religious studies and theology in the different faith traditions work together to help promote the ideals of sustainable development and the Earth Charter. Through dialogue they can share their earth-sustaining principles and work out how religious studies and theology can be better taught. Dialogue, as a mechanism for achieving mutual understanding and negotiating common goals among those of the same or different faiths, needs to be properly understood and made use of. For dialogue to be effective, it has to be based on sincerity, which is a basic religious trait.

Notes

^{III.} See, for example, Douglas Pratt, "Philosophy of Religion," Seminar on Philosophy and Civilisational Dialogue, Centre for Civilisational Dialogue, June 26–27, 2007.

¹¹² "The Earth Charter," www.earthcharterinaction.org/content/pages/Read-the-Charter.html.

¹¹⁸ Thomas Davis, "What Is Sustainable Development?" Sustainable Development Institute, College of Menominee Nation, www.menominee.edu/sdi/whatis.htm.

¹⁴ Basarab Nicolescu, "Transdisciplinarity as Methodological Framework for Going beyond the Science and Religion Debate," The Global Spiral, Metanexus Institute, May 24, 2007,

www.metanexus.net/magazine/tabid/68/id/10013/Default.aspx.

¹¹⁸ Azizan Baharuddin, *Science and Religion: Discourse on New Perception* (Kuala Lumpur: Institute Kajian Dasar, 1994), 21–82.

¹¹⁶ Hazizan Noor, "Islamic Studies in Malaysian Universities: Review and Prospect," in *Dialogue on Islamic Studies Curriculum: A New Agenda for the Study of Islam and Muslims* (Kuala Lumpur: Centre for Civilisational Dialogue, 2005).

¹⁰⁷ See Carl Ernst, *Following Muhammad: Rethinking Islam in the Contemporary World* (Chapel Hill: University of North Carolina Press, 2003).

¹¹⁸ Leonard Swidler, *Dialogue in Malaysia and the Global Scenario* (Kuala Lumpur: Centre for Civilisational Dialogue, 2003), 1–10.

^{119.} Osman Bakar, *Environmental Wisdom for Planet Earth: The Islamic Heritage* (Kuala Lumpur: Centre for Civilisational Dialogue, 2007).

^{120.} "Earth Charter."

^{191.} Bakar, *Environmental Wisdom*, 27.

¹²² al-Hujurat 49:13.

^{128.} "Earth Charter."

¹⁹⁴ *al-Jum'a* 62:10.

¹²⁵ S. M. N. al-Attas, *Islam, the Concept of Religion and the Foundations of Ethics* (Kuala Lumpur: Dewan Bahasa dan Pustaka and Ministry of Education, 1992), 1–3.

¹⁹⁶ Ibid. al-Attas' gender-specific language is retained in these paragraphs to make clear the personal connections drawn between contemporary humans and Adam.

^{127.} al-A'raf 7:172.

¹³⁸ *Zakat* is the giving out of a certain percentage of one's wealth that has been accumulated over a certain period.

¹⁹⁹ See I. R. al-Faruqi and L. L. al-Faruqi, *Cultural Atlas of Islam* (Kuala Lumpur: Dewan Bahasa dan Pustaka, 1992), 334–36.

^{180.} al-Baqara 2:245.

- ^{181.} Baharuddin, *Science and Religion*.
- ¹⁸⁹. Hud 11:7.
- ^{188.} al-Kahf 18:7.

¹⁸⁴ Lynn White, "The Historical Roots of Our Ecologic Crisis," Science 155 (1967): 1203-7.

¹⁸⁶ See al-Faruqi and al-Faruqi, *Cultural Atlas of Islam*, 334–36.

^{186.} Luqman 31:20.

^{187.} al-Hajj 22:65.

¹⁸⁸ al-Attas, *Islam, the Concept of Religion*, 12–13.

- ¹⁸⁹ Hazel Henderson and Daisaku Ikeda, *Planetary Citizenship* (Chicago: Middleway Press, 2004), 152.
- ¹⁴⁰ Muhammad Iqbal, "A Plea for Deeper Studies," Islamic Culture, vol. 3, 201-9.

^{141.} Bakar, Environmental Wisdom, 63.

^{149.} al-Mulk 67:3.

^{148.} al-Dukhan 44:38-39.

¹⁴⁴ R. C. Foltz, F. M. Denny, A. Baharuddin, eds., *Islam and Ecology: A Bestowed Trust* (Cambridge, Mass: Harvard University Press, 2003), 85-107.

¹⁴⁶ S. H. Nasr, *The Need for a Sacred Science* (Albany: State University of New York Press, 1993), 129.

146. Ibid.

¹⁴⁷ Azizan Baharuddin, "Science in the Malay World," (in Malay), at Seminar Sains dan Tamadun Melayu [Science and Malay Civilisation], December 20-21, 2006. Examples include the following: *Berani-berani lalat* ("Brave like a fly"): This proverb explains the situation of someone who is not really as brave as he tries to portray himself to be. *Seperti rusa masuk kampong* ("Like the deer entering the village"): This explains the condition or behavior of someone who is a stranger in a new place. *Seperti kerbau dicucuk hidung* ("Like the buffalo being led by the nose"): This is the condition of someone who is being bullied by someone else. *Sarang tebuan jangan dijolok* ("Do not poke the bee-hive"): This warns against "disturbing" someone or something that may be volatile. *Burung terbang dipipiskan lada* ("Whilst the bird still flies, the chilli is pounded"): This proverb teaches against making preparations for the enjoyment of something that is not yet properly obtained.

¹⁴⁸ See M. U. Chapra, *Towards a Just Monetary System: A Discussion of Money, Banking, and Monetary Policy in the Light of Islamic Teachings* (Leicester: Islamic Foundation, 1985).
¹⁴⁰ Ibid., 1.