

VISIONS OF A NEW EARTH

Religious Perspectives on
Population, Consumption,
and Ecology

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CHAPTER 9

*An Islamic Response to the
Manifest Ecological Crisis:
Issues of Justice*

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INTRODUCTION

The crisis of an earth bleeding and burning to accommodate a fivefold economic expansion in just the last forty years is, by definition, global, and not specific to Muslims per se. Nonetheless, the manifestations of the crisis in Muslim communities and countries are as alarming as anywhere else in the world and illustrate some of the problems that afflict other religions. Some argue that the ecological crisis is the divine will of God as revealed by the Qur'an denoting the nearing of the end of life on earth. As such all this discussion about avoiding an ecological crisis is futile since it is predestined. The collective human disapproval of the crisis is of no consequence and it is actually discredited as a standard of value by some in Islam.¹ This view of predestination in Islam is not, however, maintained by all believers, although it dominates today. Islam also includes a progressive view wherein humans impact and change the world in ways that are not predestined. This debate between predestination and human free will in Islam is known as the *naql* (knowledge transmitted from revelation and tradition) versus *aql* (knowledge transmitted from independent reason) debate. The proponents of *naql* see morality and values as not subject to human free will because only God can know what is good and what is bad.² The *aql* view proponents, on the other hand, maintain that reason, guided by revelation, can provide the basis for a progressive Islamic vision of human action. Evidence supporting this progressive view can be found as early as the seventh cen-

ture. The party of Unity and Justice, or the *Mu'tazilites*, insisted that God gave humans intellect to "choose conduct to decide and even to create their own acts free from predestination."³ Reason guides in accordance with general principles and revelation gives particular parables of such principles.⁴ The Qur'an emphasizes rationalism for example "Say (unto them Muhammad): Are those who know equal to those who know not? It is those who are endued with understanding that receive admonition."⁵ Hence, humans, according to this school, when punished in the hereafter will be punished for sins they could have avoided. This chapter will be framed by arguments proposed by *ahl al-aqal* (the rationalists) with revelation guiding the general principles of reason.

A MUSLIM RESPONSE TO THE ECOLOGICAL CRISIS

Framing the Issues

It is not difficult to understand the ecological crisis in its apparent manifestations as polluted air, radiation, contamination of water, and the eradication of entire species of animals and plants. It is, however, more difficult to ascertain that the processes that lead to environmental depletion and thus an ecological crisis of the magnitude we are experiencing on our earth today are the result of human injustices and greed. This type of correlation between behavior and the resulting ecological crisis is particularly difficult for a group of people, such as the Muslims in the world, who view themselves as victims of postcolonialism, racism, poverty, enslavement, and an unfair demonization. In this chapter, I am proposing, based on a rational basis, a retrieval of an Islamic response to the ecological crisis that has been long forgotten. This response assumes a confident and responsible world community of Muslims that sees itself engaged in the problems on this earth as active contributors to a global solution. This response views the reasons underlying human crisis (including the ecological one) to be behaviors of greed, lack of moderation, inequity, and disrespect (or, as Loy says in his chapter, believing in the religion of the market). Islamic history is full of examples of how such behavior has led to losing battles against the pagans, making bad judgements, and losing the Islamic empire and hence, the Islamic identity altogether in the nineteenth century. Contemporary behavior of Muslims is also full of examples of greed, lack of moderation, and hence nonreverence to God's creation. In recent years Muslims have extracted eightfold their level of consumption of oil for export to the United States, Western Europe, and Japan.⁶ The extraction of oil and its by-products is undertaken with minimal controls on toxic emissions and hazards. The Muslim world owns 800 billion barrels of oil in future

reserves.⁷ To keep the price of oil at a competitive level for global consumption, stringent pollution controls are not likely to be introduced. Muslims must join other world religions in recovering the sense of the sacred, which, as Daniel Maguire says, is at the heart of all religion. The false sacreds of the market religion are invading and pervading all cultures and are the modern idols challenging all world religions today.

The polluting effect of oil reaches far beyond its production. We were all reminded of this in 1990 by the "Desert Shield/Desert Storm" war. The Iraqi invasion of Kuwait meant a loss of 25 percent of world oil reserves and a future threat to 54 percent of the world's oil reserves held by Saudi Arabia and the Emirates (Tanzer 1991, 271-72). In a war that the British press dubbed "the real estate war," 93 percent of the "precision" bombs dropped were misguided and 75 percent missed their target. At least two hundred thousand people were killed and injured. More than ten thousand Kurds were displaced. Today, a large number of U.S. Desert Storm veterans suffer from what is feared to be the consequences of a germ warfare.⁸

The setting ablaze of over six hundred oil wells on 22 February 1991 exemplifies the environmental impact of war. Toukani and Barnaby, two British scientists, summarized the global environmental effects by stating "Close to Kuwait, the plume could cause a considerable reduction in daylight; the obstruction of sunlight might significantly reduce the surface temperature locally. This in turn could reduce the rainfall over parts of South East Asia during the period of summer monsoon. If the smoke reaches the ozone layer, the smoke could lead to small reductions in ozone concentrations within the northern hemisphere."⁹ Once again, the maldistribution of resources and the desire to maintain or extend access to them is directly implicated in this "real estate" war.

More than thirty Muslim nations were directly involved in this war that environmentalists are calling the "Nuclear Winter," because the effects of the oil burning has reduced sunlight and temperatures throughout the region. The future does not look any brighter for Muslims. In the last world Arms Proliferation Treaty (1995), two among the countries that refused to sign the treaty were Muslim, Pakistan and Turkey.

War, however, is not the only polluting factor in Muslim countries and communities. Water is also polluted in Muslim countries. Waste dumping into rivers, seas, or nearest streams is common and the state apparatus cannot control it. Explosives are also used to fish, thus eradicating the symbiotic environment in the habitat. Air pollution results from unregulated industrial waste disposal, the use of leaded gasoline, and the overcrowding in cities. A recent study conducted by the U.S.

Agency of International Development (AID) in Egypt shows that air in Cairo is ten times more polluted than a city equal to its size in the United States. Industries discharge 1,350 tons of lead yearly into the air in Egypt. Drinking water has at its lowest estimate 9.3 milligrams more lead than the average acceptable rate globally.¹⁰

The behaviors illustrated above that lead to human crisis can be understood through the Arabic word *hay'a*. The word is virtually untranslatable to English. It actually denotes behaviors that reflect shyness out of respect and reverence rather than out of fear. It is behavior that reflects balance, honorable manners, and protection of God's glory including his creatures and other creation. For the purpose of this chapter I will translate the word as "dignified reserve." I am proposing that we revive this conceptual framework of *hay'a* as a guiding theological principle that could avert an ecological crisis. I suggest that the absence of *hay'a* has contributed to a livelihood among Muslims that is causing the ecological crisis. This is reflected in the disparity between the poor and the rich, a production system that is entirely dependent on the monopolies and big corporations, which in turn leads to maldistribution of resources and overconsumption, authoritarian leadership, wars, disrespect of human diversity, and finally a way of life that depletes natural and human resources. In this livelihood that lacks dignified reserve Muslims have also dehumanized women, which in turn has contributed to reducing their status to reproductive apparatuses only, hence causing the overpopulation that Muslim communities experience today. This overpopulation in turn has led to the manifest results of environmental depletion in the forms of pollution, disease, infant mortality, and crime.

In the balance of this chapter I will look at how the behaviors that lack *hay'a* in production and consumption, and toward women have contributed to the manifestations of ecological depletion. I will suggest throughout some ethical responses that are Islamic in principle and hope that their retrieval provides a solid response to averting the doomsday approach that some Muslims believe is beyond human free will and reason.

The Issues in Detail: Muslims' Economic and Political Livelihood and the Ecological Crisis

Islamic teachings from the Qur'an, Hadith, Sunna, and history all emphasize the need for moderation and modesty in a Muslim's life. The integration of Muslim countries and communities into the larger market economy as a consequence of national modernization, development, and desegregation have left them with maldeveloped patterns of production and consumption that do not function by moderation principles. Although Muslim countries and communities are considered as periph-

eral in terms of their production capacity—that is, they are marginal contributors to manufacturing markets—the way Muslim countries produce and consume creates glaring disparities between the poor and the rich, makes them dependent on monopolies, leads to authoritarian leadership, and creates an elite class that overconsumes and overproduces and, hence, contributes to depleting the environment. By and large the forty-six Muslim countries mainly extract raw materials, oil being the most important (56 percent of the world's oil export). Although Muslim countries have some manufacturing industries such as cement, textile, and light armaments, it is not at a level to move them into a competitive advantage within the global market.¹¹ Hence, most of the trade (95 percent) that occurs is with non-Muslim countries. The oil industry, although nationalized, is heavily dependent on foreign technology, expertise, and security (as the Gulf War lately showed), and the maintenance of an elite group with which foreign heads of state can interact.

Robert Reich notes this structure of elites benefitting from the global economies wherever they are by stating, "the economic globalization . . . has served to delink the interests of the wealthy classes from a sense of national interest and thereby from a sense of concern for an obligation to their less fortunate neighbors. . . . It is no longer meaningful to speak about this delinking in terms of a North-South divide. . . . It is class."¹²

For Muslim countries, the problem involves the uneven development in the global capitalist system that has led to extreme disparities between the elites and nonelites both among and within nations. Understood in terms of disparity between the poor and the rich, Islam has a very clear response to how Muslims should produce and consume. Hourani, a famous scholar of Islam writes "Islam could also be a basis of economic life . . . and if accepted that will ensure social justice and liberate humans from servitude."¹³ The Islamic economic system has been set forth as a "third way" that differs from both "laissez-faire capitalism and Marxist socialism."¹⁴ The basis of the system is set out in general terms in the Qur'an, but the details have been worked out by legal scholars. The system, ideally, creates a society of private ownership and enterprise without the vast accumulation and concentration of wealth. Two principles summarize the Islamic economic system. The first sees that income, exchange, and trade should be based on just transaction and not claims on natural or market resources. The second is similar to the ideas presented in Coward's chapter in this volume, and sees that the community has an overriding priority over individuals. Adherence to these principles would serve to constrain the unequal distribution of resources and, hence, the overconsumption and overproduction of resources among the few. The following outlines these principles.

Principle One: Income, exchange, and trade should be based on just transaction and not claims on natural or market resources. Just interaction in the Islamic perspective should not be confused with the Buddhist concept of eliminating desire as mentioned in Gross's chapter. Actually Islam sees desire as a source of happiness, but what is problematic with desire is its attainment. In Islam individual desires should be attained in ways that permit everyone in the community to fulfill his/her individual desires and individual desires take a lower priority over community desires. Hence, there are conditions that regulate individual and communal fulfillment of desire.

Work is one of the conditions of just interaction. The Qur'an is very clear about issues of reward and revenues. For example it states "Humans shall have nothing but what they strive for."¹⁵ People who work are not equal to those who do not in Islam.¹⁶ Work in the Islamic tradition includes more than a "job," and the word would translate as "labor."

Equal, exact, and honest exchange is another condition of the just transaction in Islam. The Qur'an emphasizes "O my people give full measure and full weight with equity, and wrong not people in respect of their things, and act not corruptly in the land making mischief."¹⁷ This concept becomes clearer to many of us living in the West when we consider the madness of Christmastime and the desire to buy toys for children during this time. In 1996 in the United States, a toy called 'Tickle Me Elmo' from the *Sesame Street* children's show that sells normally for \$26 became so rare in the market that some people were auctioning it for over \$1,500. This kind of exchange that is based on creating an artificial need and crazed desire is not permitted in the Islamic system. All exchange in the Islamic system ought to be of *use value*—that is, a good, or service for another equivalent in value. Exchange should never be of *surplus value*—i.e., a commodity with a value altered for some humanly imposed reason. Surplus-value exchanges (i.e., values determined not by the real use value of the good or service, but by the value imposed by supply/demand forces of the market) are considered usury.

Usury, *riba*, is forbidden in Islam. The rule governing *riba* in Islam states that any profit or interest accrued without working for it, or without being a full partner in the risks of gain and loss makes the transaction unjust. *Riba*, thus, is defined as "asking something for nothing in an interaction . . . it is not equal for equal."¹⁸ As such the Qur'an warns "that they used usury though it was forbidden and that they usurped human wealth with falsehood."¹⁹

Interest accrued from Western-style banking is considered *riba*. The client in Western-style banking, according to Islamic interpretation, is at a disadvantage. As a depositor his/her money is used to create more

money under false guarantees of delivery. As a borrower, she/he pays interest on imaginary assets that the banks do not have. The imaginary money that banks have creates artificial wealth by exploiting the hard-working depositor and the needy borrower. In addition this artificial wealth is not redistributed equitably, but remains concentrated in the hands of a small minority of financiers. The Qur'an refers to such practices by saying "That which you lay out for increase through the property of [other] people, will have no increase with God: but that which you lay out for charity seeking the countenance of God, [will increase], it is these who will get a recompense multiplied."²⁰

Cummings, Askari, and Mustafa note that the Islamic banking system operates on the principle of equity ownership not interest.²¹ Money invested in a bank as though it were a business venture without guarantees of profit or loss would be Islamic. Hence, the investor gains interest only if the business produces profit. This kind of investment guarantees more conservative risk-taking ventures and thereby reduces creation of vast sums of artificial wealth and its concentration in few hands.

Principle Two: The right of the community over individuals. Islam emphasizes the concept of communal good and duties to the community in a way that is similar to Coward's suggestion in his chapter on the well-being. This community of believers has a collective ethos of goodness: "let there arise out of you a band of people inviting to all that is good, enjoining what is right and forbidding what is wrong."²² It is a community where Muslims protect each other, hold together tightly, and cooperate on generosity and righteousness.²³ Islam's emphasis on the right of the community over the individual is demonstrated through its position on issues of distributive justice in general. The particularities of this position can be best illustrated in Islam's treatment of the three issues of: (a) taxation, (b) community leadership, and (c) its vision of the "other" in the community.

a. *Taxation.* Islam outlines three tax structures: one for Muslims, one for non-Muslims, and one that is universal and applies to all regardless of religion. All taxes aim to redistribute the wealth and power of the rich to the poor. *Zakat* is a tax that all Muslims should pay. It is a tax that has become a religious obligation and it is particularly intended for the rich to fulfill the needs of the poor in the community. This fulfillment is not charity in the Western sense but a community obligation. The state, *dar al-Islam*, oversees the collection of *zakat*. The exact levy of the *zakat* varies in accordance with different legal schools of thought. Generally, a 2.5 percent tax on one's wealth is applied. Some Islamic jurists include taxation on mines as part of the *zakat*, others assess it as a separate tax. Regardless all Muslims must pay a tax for extracting the land's wealth.

Some jurists also argue that if *zakat* is inadequate to meet the demands of the needy, then the state can impose additional taxes.

Muslims also pay taxes on agricultural land, *ushur*. The levy on land is applied to the gross production before deduction of production costs.²⁴ The Qur'anic injunction recommending this tax states: "O you who have attained to faith spend on theirs out of the good things which you may have acquired and out of that which we bring forth for you from the earth."²⁵ Non-Muslims living in an Islamic state pay a poll tax (*jiziyah*). This tax is paid as compensation for being defended by and included in the state. The tax rate is based on a community consensus (*ijma'*) and should be assessed on the ability to pay.²⁶ Finally, all citizens of the Islamic state must pay a land tax (*kharaj*). The tax is levied on two bases. The first is assessed on a fixed rate regardless of the output, and the second is paid only if there is output from the land.

Islam's prescriptions on taxation offer an economic mechanism for limiting the disparities in access to resources the economic system otherwise generates. Nonetheless, two noneconomic prescriptions concerning community leadership and respect for human diversity are also critically important for an Islamic economic system and further serve to diminish inequities in the Islamic community.

b. Distributive Justice beyond Utilitarian Economies: Leadership Qualities. The Imam, Caliph, or Sultan is the person who leads the Islamic community and who would be responsible to facilitate and promote distribution within it. The quality of the leader is a very important element in securing a just community. Mernissi writes: "It is difficult to imagine a weaker political leader than a Muslim one. The ideal leader is modest, trembling with fear before his God and terrified before those he/she governs for making an unjust decision will lead him directly to hell."²⁷ The legitimacy of the Muslim leader is based on the will of the community (*ummah*) according to Islamic jurisprudence.²⁸ In Islam the leader has no divine powers.²⁹ The leader of the Islamic state ought to guarantee freedom for the subjects.³⁰ The leader ought to treat subjects equitably, and consult the community on the affairs of the state. The Qur'an states clearly the issue of justice as the working ideology of the leader in many verses.³¹ Ibn-Taymiya, a famous Muslim thinker who based his interpretations on reason, stated that "people have never disagreed on the negative consequences of injustice and the positive impact of justice. As such God will render a just nation victorious even if its citizens were non-believers, while the unjust state will be defeated even if its citizens were believers."³²

The above-mentioned characteristics of the Islamic leader have disappeared in our modern day. Most leaders today in the Islamic world

exercise some kind of authoritarianism. According to Mernissi: "The vulnerability has disappeared from the scene through the combined effect of the separation of Muslim memory from the rationalist tradition and the modern media that have created an unchallenged leader."³³ As such the issue of disparity between the poor and the rich in Islamic countries that are the result of maldevelopment requires the restoration of a just leader who is accountable to the community he/she rules. Once the leaders are ruling under Islamic precepts—justice, equality, and humility—rather than manipulating them, economic policies aimed at distributive justice could work and the ecological crisis resulting from the lack of distributive justice could be checked.

The above response, however, partially disregards the fact that Muslims do not live alone in this world. The relationship between Muslims and non-Muslims is very important to ensure equitable distribution of resources. Since I am writing an Islamic response I will focus on Islam's position toward non-Muslims. (Others in this volume have considered the other side of this relationship, see especially Keller and Múnera.)

c. Distributive Justice beyond Utilitarian Economies: The Vision Of the "Other" in Islam. In addition to the need of having a just leader, Islam enjoins Muslims to treat others peacefully and kindly if distributive justice is to be a characteristic of their community. There is some confusion about what Islam says concerning the relationship of Muslims to non-Muslims. Visions of the "other" are often tainted by three verses of Surah 9, Al Tawbah in the Qur'an.³⁴ The three verses enjoin Muslims to fight those who do not believe in Allah. Chapter 9 of the Qur'an is among the last that was revealed to the Prophet Muhammad. Sayed Qutb, a well-known Egyptian Islamist and a prominent thinker among the Muslim Brotherhood, argues that this chapter provides a final and absolute injunction. He argues that all other verses enjoining mercy, justice, tolerance toward non-Muslims were voided by this revelation.³⁵ This interpretation leads a number of Muslims to believe that Islam is the religion of the sword in its relationship to the non-Muslims. Numerous Muslim scholars (Abdu, Rida, Shaltout), however, disagree strongly with Qutb's interpretation. They argue that this chapter was revealed to address one specific historic instance. Al-Ghazzali notes that the Qur'an contains 120 verses related to respecting the non-Muslims including pagans, and that three verses cannot void so many injunctions.³⁶

Difference and diversity in Islam must be understood as God's will.³⁷ This will of God for diversity among humans has to be respected: "We have indeed created humans in the best mold."

The Prophet's tradition and Islamic history are also full of stories

about respect for non-Muslims. "Upon the passing of a funeral procession near where the Prophet gathered with some of his friends, he stood up in respect and so did the rest of the gathered. After the procession passed, one person in the crowd said: O Messenger of God did you know that this was the funeral of a Jew? The Prophet replied: Wasn't he human and had a human soul? Was he not a human created and made by God? Wasn't he a being with dignity?"³⁸ Another well-known story in Islamic history about the fourth Orthodox Caliph Ali is indicative of respect of the "other." Ali told the ruler he sent to Egypt, Malik al-Ashtar: "fill your heart with mercy and love to your subjects since they are two kinds: A sibling in belief or a human created by God the same way you were."

Islam not only prescribes respect of the "other," but urges cooperation with all peoples and nations.³⁹ Muslims are very clearly ordered to befriend the "other." The Qur'an states: "If one amongst the pagans sought asylum or refuge grant it to him."⁴⁰

To summarize, the maldevelopment in the economic systems of Muslim communities that led to maldistribution of resources, overconsumption, disparity between the rich and the poor, dependency, authoritarianism among leaders, and disrespect of human diversity are at the basis of the ecological crisis. Islam prescribes an economic system that constrains the extent of the maldistribution of resources through its principles of taxation and distributive justice. Once Muslims practice these principles of equity in distribution of resources and treatment of others, which are at the heart of Islamic teachings, we will be moving one more step toward averting the ecological crisis.

The economic and political principle of *hay'a* (dignified reserve) has implications for other social and cultural relationships that pertain to the ecological crisis, namely the relationship between men and women. It is to this that I now turn.

Absence of Hay'a toward Women and the Ecological Crisis

Scientists have ascertained that overpopulation is a major contributing factor in the ecological crisis. The population growth rate in Muslim countries is among the highest in the world. The crude birth rate of the forty-six Muslim countries is 1 percent higher than that of the developing world as a whole.⁴¹ In the mid-1980s even countries that adopted family planning programs (with the exception of Indonesia) in the early 1960s had very high natural increase rates of the population. For example, Pakistan's rate of increase was 2.8%, Egypt's rate was 2.6%, while the rate of increase in non-Muslim countries such as India and Colombia was 2.3% and 2.1%.⁴²

Islam is indisputably a pronatal religion.⁴³ Nonetheless, family planning programs have also used Islamic teachings to convince people to use contraception. Various verses from the Qur'an that favor family planning outcomes were stressed. These included injunctions concerned with leaving heirs in good conditions, educating children to be useful, the quality and not the quantity of children, and how children are an enormous responsibility for parents.⁴⁴ Other interpretations based on reason were reiterated. For instance, in the Arab Muslim world distinctions between lifetime family planning (*Tahdid al-nasl*) versus family planning as the spacing of children (*Tanzim al-nasl*) were made to sanction the use of contraception.

Although Islam sanctions the use of various methods of family planning and many Muslim countries and communities have adopted family planning as a state policy, only one country, Indonesia, has succeeded in curtailing its population increase significantly. What accounts for the limited success of these attempts to reduce population growth through the adoption of family planning programs and hence reduce the pressure on environmental resources?

The root of the reproductive problems for most Muslim women lies in the fact that they live either in the less developed world or the less affluent parts of the developed world. As such their social and material conditions inhibit following family planning programs successfully. While women are the target of most family planning programs, seldom do they participate directly in their design and implementation (i.e., they remain "invisible"). The human context of women in the programs ought to be emphasized and brought to the forefront. Data has shown that the empowerment of women through higher education, active involvement in the labor force, legislative policies, and increased access to health services often serve to delay marriage, reduce the number of offspring, and diminish the incidence of polygamy.⁴⁵ In Egypt, for example, 60% of women who cannot read and write had at least one co-wife, while the incidence of polygamy was reduced to 0.01% among women who had university degrees.⁴⁶ In most Muslim countries the patriarchal, misogynist local cultures favor interpretations of the Qur'an that debase women. Islam, however, sees women as equal to men and deserving of the same treatment; and both men and women will be judged on equal grounds before God.⁴⁷

The equity that Islam grants women is not reflected in popular culture, economic opportunities, or formal substantive law. For instance, popular culture, as reflected in some Arabic proverbs, encourages violence against women ("if you break a girl's rib, twenty-four other ribs will grow"), glorifies male offspring ("those who bear boys never die"), and encourages women's dependence on men ("a straw husband is better than none").

Women's participation in the paid labor force still remains marginal in most Muslim countries and the jobs they do take typically offer little power, prestige, or income. According to statistics from the 1990 UN report on the Situation of Women, women constituted only 6% of the labor force in the United Arab Emirates (one of the wealthiest Muslim countries) and 62% of women above the age of fifteen were illiterate. Similarly, women made up only 10% of the labor force in Egypt (one of the poorest Muslim countries), and of these 20% worked in agriculture (a low-paying job) and 41 percent were self-employed (a less secure job).

Legal codes in Muslim countries, whether totally dependent on divine law (Shari'a) or partially dependent at the level of personal status codes, very clearly debase women. In all these countries, codes are legislated to favor men over women even if the punishment was un-Islamic. For example, in fornication cases, women are punished more severely than men, a practice that goes against the letter of the Qur'an. In cases where the texts are silent, the codes derived from the spirit of the text also favor men. Hence, a Muslim woman from an Islamic country cannot give her citizenship to her children if she is married to a foreign man. A man from a Muslim country, however, can give his children his citizenship even if his wife is foreign and he does not live in his native country. Women cannot divorce their husbands except in court, while men can declare a wife divorced by verbally uttering the words "I divorce you" three times. In many Muslim countries a Muslim man can divorce his wife or take a co-wife without any legal requirements to inform the concerned wife.

The empowerment of Muslim women as humans is central to the discussion about population increase and its impact on the ecology. Unless we improve the conditions of Muslim women according to Islamic teachings, the discussion of family planning would be as relevant as talking to an incubator. This means including women as active participants in family, economic, and political decision making. This can only be made possible by improving the conditions under which they live and bringing equity and dignity to women.

The improvement of Muslim women's status applies to both the rich and the poor. Islam has its own share of powerful women both in its history and in the contemporary world. Consequently, a return to Islamic teachings about women is essential to make family planning successful. Muslims, hence, need to remember how the Qur'an emphasizes the dignity of women by stating "Never will I suffer to be lost the work of any of you be he male or female ye are members of one of another" and behave with hay'a toward them.⁴⁸

In sum, Islam offers much in response to the manifest ecological crisis of population growth. This response, however, focuses on a behav-

ior toward women as humans rather than simply permitting a technological fix such as family planning. While Islam leaves open several avenues for family planning, traditional approaches using education about contraception have achieved limited success in most Muslim countries. This suggests that the population problem runs deeper than merely extending the knowledge about and availability of contraceptive devices. Rather, the empowerment of women (or lack thereof) lies at the core of the population problem, and hence, the ecological crisis. Islam views women and men as equal participants in the Muslim community, even if, in most Muslim (and, I might add, non-Muslim) countries this equity has not been realized. The population problem, then, appears to stem from un-Islamic behaviors and attitudes that lead to inequity between men and women. I am thus suggesting a revival of the Islamic behaviors of dignified respect toward women as mentioned in the Qur'an and Hadith.

CONCLUSION

Progressive Islam has several effective responses toward the ecological crisis. These responses have action-oriented components toward averting evil and promoting the good. Hence, the Qur'an emphasizes: "Verily never will Allah change the condition of a people until they change themselves."⁴⁹ The orientation of action in progressive Islam toward averting the ecological doom is one of dignified reserve: *hay'a*.

In relation to distributive justice between the poor and the rich that creates an elite that overconsumes and overproduces, and hence contributes to the ecological crisis by depleting the environment *hay'a* is reflected in the ethic of hard work. *Hay'a* is also reflected in the economic system of exchange that is based solely on use value versus surplus value of a good. Such an exchange value would bring equity among community members, reduce concentration of wealth and diminish the maldistribution of resources. The leader's humility and consultative duties with the community also bring forth the issue of respect of the leader to his/her subjects, which would eventually promote distributive justice. Further, Islam advises the respect for human diversity, something that is necessary for averting wars and for ensuring distributive justice within and outside the community.

In relation to population increase that also puts pressure on the ecology, *hay'a* requires action toward empowering women to have family planning programs, which would contribute to a reduction in natural growth rates in population.

Islam has a very clear and unequivocal response to the depletion and

destruction of the environment and nature. Nature was created by God in an orderly fashion.⁵⁰ This nature is given to humans as a trust (*ammanah*). Thus, the Qur'anic injunction says "I am setting on earth a vice-regent."⁵¹

This vice-regent is a manager of the trust and not an owner. Depending on how humans manage this trust, they will be judged in the hereafter. Hence, there is a direct relationship between the utilization of nature and rewards on the day of judgment. The relationship not only emphasizes a "no-harm" principle to nature, but insists on the doing of good. The Prophet, for example, said: "anyone who witnesses evil should remonstrate upon it by hand, mouth or heart, the last is the weakest of faith."

Islam counsels Muslims to use of environmental resources in accordance with five rules:⁵²

1. The use of nature and its resources in a balanced, not excessive manner;
2. Treat nature and its resources with kindness;
3. Do not damage, abuse or distort nature in any way;
4. Share natural resources with others living in the habitat; and
5. Conserve.

These rules are set forth by jurors to ensure that nature and its resources are managed well by humans who are the executors of God's trust. Balance, admonitions against excess, justice, and the sharing of resources are, once more, found at the core of the Islamic attitude toward the environment. *Hay'a* of God's creation requires that Muslims use earth's resources in moderation and conserve it.

The dignified reserve prescribed by Islam toward life on earth is not only the responsibility of some people, but it is every Muslim's duty. Muslim jurists have set forth a rule stating that "the executor is a guarantor even if the act is not deliberate or intentional." On account of this rule, every Muslim and every community claiming the faith ought to listen. Regardless of one's ethical preference to human free will or predestination, given the state of the earth's warming climate, increasing pollution, rates of deforestation, state of war, and disease due to the ecological imbalance, Muslims will be and are responsible on the day of judgment for this crisis.

NOTES

1. The following format will be utilized to denote reference to Qur'anic chapters and verses: Fatir: 8.

2. Al Ra'd: 17

3. G. F. Hourani, 1985, *Reason and Tradition in Islamic Ethics* (Cambridge, England: Cambridge University Press) p. 7.

4. M. Khadduri, 1984, *The Islamic Conception of Peace* (Baltimore, MD: John's Hopkins University Press), p. 41-48.

5. Al Zumar: 9.

6. BP Statistical Review of World Energy, 1990, (London: British Petroleum Educational Service).

7. BP Statistical Review of World Energy, 1990.

8. The Presidential Gulf War Illnesses Commission Report has shown that a large number of U.S. Desert Storm Veterans have been exposed to germ warfare during combat.

9. Penny Kemp, 1991, "For Generations to Come: The Environmental Catastrophe", in: *Beyond the Storm: A Gulf Crisis Reader*, ed. P. Bennis and M. Moushabeck (New York: Olive Branch Press), p. 331.

10. "Al-Qahira Akhthar Mudin al'Alam Talwitha" (Cairo is the most polluted city in the world), *Al-Akhbar Daily News*, 6 June 1995, p. 8.

11. Quoted in Pervez Houdbhoy, 1991, *Islam and Science* (London: Zed Books Ltd), p. 30.

12. Quoted in David Korten, 1994, "Sustainability and the Global Economy: Beyond Bretton Woods" (Opening Plenary Presentation to Fall Retreat, 13-15 October 1994, The Environmental Grantmakers Association, Mount Washington Hotel & Resort, Bretton Woods, New Hampshire), p. 7.

13. Hourani, *Reason and Tradition in Islamic Ethics*, p. 372.

14. J. T. Cummings, H. Askari, and A. Mustafa, 1980, "Islam and Modern Economic Change", in: *Islam and Development: Religion and Sociopolitical Change*, ed. John Espisito (Syracuse, NY: Syracuse University Press, pp. 25-48), p. 44.

15. Al Najm: 39.

16. Al Nisa':95.

17. Hud: 85.

18. Umar Vadillo and Fazlun Khalid, 1992, "Trade and Commerce in Islam", in: *Islam and Ecology* ed. Fazlun Khalid and Joanne O'Brien (New York, NY: Cassell) p. 73.

19. Al Baqarah: 161.

20. Al Rum: 39.

21. Cummings, Askari, and Mustafa, "Islam and Modern Economic Change".

22. Ali Imaran: 104.

23. Tawbah: 71; Ali Imran: 103; Al Mai'dah: 2.

24. Cummings, Askar, and Mustafa, "Islam and Modern Economic Change", p. 27-29.

25. Al Baqarah: 267.

26. Cummings, Askar, and Mustafa, "Islam and Modern Economic Change", p. 30.

27. Fatima Mernissi, 1992, *Islam and Democracy: Fear of the Modern World* (translated by Mary Jo Lakeland, New York: Addison-Wesley Publishing Co), p. 27.

28. Fahmi Houidi, *Al-Islam wa al-Democratiah* (Islam and democracy, Cairo: Markaz al-Ahram Llitargamah wa al-Nashr), p. 124.
29. Al Ghashiyah: 21-22.
30. Al Kahf: 29.
31. Al Nisa: 58; Al Mai'dah: 8; Al Nahl: 90; Al Shura: 15, 38; Al Hujurat: 9, 13.
32. Houidi, *Al-Islam wa al-Democratiah*, p. 122.
33. Mernissi, *Islam and Democracy*, p. 22-23.
34. Verses 5, 29, 36.
35. Houidi, *Al-Islam wa al-Democratiah*, p. 33-35.
36. Houidi, p. 24.
37. Yunus: 99; Hud: 18.
38. Houidi, p. 27.
39. Al Nahl: 92; Al Qasas: 18, 38.
40. Al Tawbah: 6.
41. I use the word *countries* because I can only obtain statistics from such geopolitical designations. It is essential to remember that Islam sees its adherents and those who live with them as a community (*ummah*).
42. Indonesia has had the most successful family planning programs in the developing world. See Hayim Adid, 1987, "Islamic Leaders' Attitudes Towards Family Planning in Indonesia 1950s-1980s," a master's thesis, Australian National University, Canberra.
43. Al Nahl: 72; Al Kahf: 46.
44. Al Nisa: 9; Al Tur: 21; Al Anfal: 28.
45. Hamed Abu Gamrah, 1980, "Fertility and Childhood Mortality by Mother's and Father's Education in Cairo", in *Population Bulletin of the Economic Commission of Western Asia* (Beirut, Lebanon), p. 81.
46. "Aqed al-Jawaz al-Jadid" (The new marriage contract), in *Nisf al-Dunia* (a weekly magazine), 15 June 1995, pp. 21-26.
47. Al Nisa: 1, 32.
48. Ali Imran: 195.
49. Al Ra'd: 11.
50. Al Ra'd: 8; Al Sajdah: 4; Al Mulk: 3, 4.
51. Al Baqarah: 30.