Submitted Article

Management of the Environment (*mohit-e zist*)
An Ethnography of Islam and Environmental Politics in Iran

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**Abstract**: In the last 30 years, environmental problems have brought substantial changes to everyday lives of ordinary Iranians. Detrimental effects of air pollution and water shortage, for example, are literally visible in urban settings around the country. Growing numbers of institutions, groups, and individuals have begun to engage in environmental activities to reverse these effects. The present work examines the discourses of Islam that are emerging and gaining ground in Iran, through which environmental problems are now addressed. Drawing upon fieldwork recently conducted in Tehran, it demonstrates various ways in which Islam is discussed and practiced in Iranians’ efforts to combat environmental problems. My argument is that the environment has become a crucial field of management, and Islamic perspectives play an increasing role in its management along with ecological, scientific approaches to the environment.

**Key words**: Iran, Ethnography, Islam, Environment, Science

Since the end of the Iran-Iraq war in 1988, Iran has experienced a series of setbacks that has blunted the progress of Iran’s lofty agendas. In order to overcome these setbacks, Iran came to focus on some key issues. The economy, for example, has been a crucial subject of the state’s concern. Iran, while confronting American-led economic sanctions, has struggled to find ways to boost its economy without heavily relying on oil industries. Public culture is another important realm to which the regime has paid considerable attention in the handling of the state. The Islamization of public institutions was one attempt that was made to influence public culture, and such efforts remain intact to this day in multifarious manners (Adelkhah 2000).

In addition to these areas of state intervention, a new field has recently garnered attention from state authorities and is transforming the sociocultural landscape of Iran; the environment (*mohit-e zist*) is such a field.¹ Iran’s concern for managing the environment is a

¹ At higher institutions in Iran, the environment is taught as a scientific object that concerns the interactions between humans and material nature. This is the definition of the environment that students learn through translated textbooks from the West. With the environment becoming an urgent concern in everyday life, my

relatively new phenomenon, and we are beginning to see diverse effects of emerging environmental discourses and practices ensuing from these environmental interests and programs. In particular, with population growth and urbanization underway, Iran faces such environmental problems as air pollution and water management in urban areas. In Iran’s Five-Year Plans, which are an indicator of the government’s areas of concentration and degree of commitment, the government spells out various ways in which they deal with these problems. This is also an indication of how environmental problems have become an urgent concern in Iran at the national level.

The management of the environment has become a critical issue from the perspectives of the economy, politics, and now religion. My findings suggest that the government in the last several years has increased its efforts to address and approach environmental problems from the viewpoint of Islam and to press its views to the wider audience by mobilizing media outlets. The environment is arguably one of the major sites in Iran where discourses of Islam are gaining strength, thus making it an apt site to study Islamic tradition. An ethnographic study of the impact of Islam on environmental problems, such as the one explored here, allows one to see distinctive ways in which Islam is discussed and practiced in the various realms of the environment. Drawing on fieldwork conducted from 2009 to 2016, the present study introduces some examples of internal debates with regard to contingent Islamic approaches to the environment in Iran and demonstrates how increasingly prominent discourses of science are incorporated into Islamic tradition.

**Literature Review**

In Islamic tradition, environmental ethics are based on a particular notion of nature (tabiat). Ozdemir (2003), for example, discusses the concept with reference to the roles attributed to humans. Nature signifies order, beauty, and harmony created by God, and it is a responsibility of humans – the only free-will possessing beings – to understand and read them. Respecting the workings of nature is, therefore, an essential task for humans (Graham 1995). Similarly, Dien’s reference to the roles of humans (2000) highlights another distinctive framework of environmental ethics in Islamic tradition. Every creature on earth, including every human, comes into existence through God. Because humans are the only creatures who can choose to protect or discard other beings, they are held morally responsible for protecting all other creatures who, like them, exist to praise God. Furthermore, Nasr (1996) approaches the current environmental crisis by inquiring into the relationships between humans’ inner state and nature as an outer world. He argues that research shows that Iranians have increasingly adopted these notions of environment and material nature. See Abe (2013). The recent regime’s efforts to promote Islamic environmental ethics, however, is bringing about changes to this.

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2 I conducted fieldwork in Tehran for the total of 17 months during 2009 – 2016. For my research, I visited various places such as the Department of the Environment (DOE), environmental NGOs, university campuses, local mosques, parks, and newspaper offices. At such locations, I conducted formal, semi-formal, and informal interviews with more than 150 males and females of different ages in various parts of town.

3 As explored later, I use the concept of tradition in the sense Asad (1986) and MacIntyre (1981) define it.
humans have now begun to view nature merely as a material object and to distance themselves from its moral dimension prescribed by Islam. In his view, because nature manifests God’s wisdom and will, it should not only be a place for utilization of natural resources, but also be a place for humans’ contemplation of God’s omnipotent power and grace. Each of the scholars thus draws upon the Quran and elaborates on the concept of nature to develop Islamic environmental ethics.

Despite the prominence placed on environmental protection in Islamic tradition, few ethnographic works concerning this issue have been produced. Many studies approach issues of the environment with a focus more on material and social dimensions than on the workings of environmental ethics subsumed in Islamic tradition. Many historians, for example, turn to the material constraints of the environment in order to explain the course of history in the Middle East and beyond. They demonstrate that environmental contexts critically shaped a living condition within which humans developed cultural traditions and are continually developing and interacting along with ensuing environmental changes (Bulliet 2011; Khazeni 2010; Mikhail 2013; White 2013). While these studies are attentive to the dialectical interactions that occurred between humans and environments, their emphases, for example, on climates (White 2013), plagues (Mikhail 2013), and nomads (Bulliet 2011) tend to overlook the vibrant internal debates and power relations within religious communities that led to subsequent changes in the practices of relevant institutions. These studies often examine the sociocultural implications of environmental changes by looking at particular ways in which Islam impacted the respective regions. In these analyses, Islam is generally understood to be a collective faith that produces religiously particular, usually homogeneous, effects upon the sociocultural ways of life among the practitioners.

From a different angle, sociological studies shed light on new movements in society generated through citizens’ growing awareness of the environment in recent years: the emergence of numerous environmental NGOs and grass-roots movements across the region is one such topic. Some sociologists examine this issue in relation to the framework of civil society and its manifold effects on the unfolding of polities in the region (Afrasiabi 2003; Fadaee 2011; Foltz 2001). In the examination of civil rights discourse, Islam is usually taken for granted as a “religion” whose practice is relegated to the realm of the private and is thereby understood to be a unit of analysis that is made clusterable and contrastable with “secular” environmental NGOs or scientists. This type of approach presumes pre-determined roles and functions of Islam as a religion and significantly limits the ways we look at the complexities where the discourses of Islam and others relating to the environment are entangled in ways that might not be captured with the categories of the religious and secular (Asad 2003).

Being mindful of these points, the present study demonstrates various ways in which the discourses of Islam are uniquely drawn to discuss and tackle emergent environmental problems in Iran. The study does not regard Islam as a system of shared knowledge and
practice among practitioners that has remained static over time. Nor does it assume, as is often portrayed in the mainstream media, that the inherent characteristics of Islam intrinsically resist the forces of modernity. Following Asad (1986), this study rather views Islam as a discursive tradition in which what is held to be the correct form of Islam is constantly shifting and shaped through internal debates transpiring at a particular time and place. The concept of tradition, originally proposed by Alasdair MacIntyre (1981), helps us understand how internal debates about Islam and related practices call attention to its authoritative virtues instituted in the past and, in that process, how they delineate a renewed purview of those virtues in the present context.

Some scholars elaborate on this concept of tradition to study ethical practices that uniquely entail internal debates among practitioners and the cultivation of embodied capacities, an element that Asad considers to be crucial for the reproduction of a tradition. Mahmood (2005), for example, investigates ascetic practices of Egyptian women in a mosque movement who are willingly subordinating themselves into the prescribed roles of females mentioned in the foundational texts. Their ethical practices involve not only the correct interpretation of moral codes in accordance with traditional guidelines, but also correct movements of the body, desires, and feelings. The examination fruitfully shows that the practitioners predicate their practices on the conduct of the Prophet and his Companions—the authoritative virtue—to become a devout Muslim in the context in which they live. Similarly, Hirschkind (2006) investigates cassette-sermon listening practices among those who pursue greater piety in their everyday lives. His analyses demonstrate that sermon-listening practices in Egypt help hone particular aural sensibilities and that the circulation of those cassettes generates an ethical soundscape where the practitioners debate about correct sensibilities, dispositions, and patterns of behavior in line with Islamic ethical traditions. These works are attentive to the ways in which Islam as a reference point of tradition is variously drawn upon and argued among practitioners in the process of cultivating their embodied capacities as Muslims.

Deeb (2006) also employs the idea of tradition to study emergent religious piety that coincides with increasing rationality in a Shiite community of Lebanon. Her main research question is as follows: how is it explicable that growing rationalism in an Islamic community led to the expansion of religious piety, instead of disenchantment with religion? Rather than focusing on embodied practices, her research turns to individual and collective expressions of piety in various sites that are affected by recent political, economical, and technological changes. Deeb attempts to demonstrate how understandings of piety at each site are constantly debated, contested and refashioned against the background of rationalism. Her research well captures the profound changes taking place in Shiite communities and illuminates a variety of ways in which proper ways of being a Muslim are argued and reformulated, and then put into practice.

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In a way, these works help us understand the questions and arguments held to be important within a tradition under particular historical circumstances. The present work builds on these works by shedding light on a range of viewpoints and debates concerning the environment that have emerged in the context of Islamic tradition. Because Iran has increasingly faced environmental problems in recent years, discussions about them also take place ubiquitously in the country and draw attention from many citizens, including religious practitioners. Addressing environmental problems from the viewpoint of Islam, these debates reveal how the discourses of Islam are related to a past (how the issues of the environment were approached in a religiously authoritative manner at the time of the Prophet and his immediate successors) and a future (how those problems should be solved in the short or long run) through a present (how the problems are currently situated within particular socio-historical conditions).

**Environmental Issues in Contemporary Iran**

Although the Iranian authorities began to pay heed to environmental issues prior to the Islamic Revolution of 1979, it was not until the early 1990s, after the Iran-Iraq war, that they seriously embarked on developing preventive programs for the protection of the environment (Saheb 2015). The Iran-Iraq war considerably disrupted Iran’s economy, and its post-era efforts focused on the restoration of the economy by expanding economic activity in oil, petro-chemicals, and agriculture (Keddie 2006). As a result, although Iran temporarily experienced an economic surge and thereby restored its economy to some extent, it also began to feel the detrimental environmental effects of these activities. For example, soil erosion became a problem due to the regime’s intensive use of land for agriculture, construction of dams, and timber. Meanwhile, urbanization and rapid population growth, which had started during the Iran-Iraq war, added further environmental problems in populated parts of the country. They included air pollution, water sanitation problems, and the reduction of green spaces in residential areas. These problems are reflected in the drafts of Iran’s Five-Year Plans, in which policies on the environment have been created and increasingly elaborated over the last two decades, suggesting that the environment has become a crucial field of state governance in Iran. The government is now forced to keep an eye on environmental problems while engaging in its economic activities at the national level. My research (Abe 2012, 2013) indicates that the environment has become subject matter for various parties from the government, scientists, environmentalists, journalists, non-expert citizens, religious leaders, and Iran’s Supreme Leader, thus generating ethical debates as to how they should handle environmental problems.

**Meeting at the DOE**

In order to present some of the ways in which Islam is practiced in an Iranian context, I draw upon discussions from a meeting that I attended in March of 2016 between environmental experts from the Department of the Environment (DOE) and Friday prayer
leaders. The meeting took place during Natural Resources Week within a facility of the DOE. The attendees comprised the DOE head, the Deputy Director for Development Management and Natural Resources at the DOE, the General Director of Public Participation, and about 25 Friday prayer leaders (A’immah Jomeh') of Tehran Province. They gathered at this meeting to communicate on environmental policies endorsed by Iran’s Supreme Leader, Ayatollah Khamenei, and to discuss ways to tackle environmental problems in the country.

In the meeting, environmental experts with Ph.D.s described to the audience the current environmental crises Iran is facing and explained to them the nature of what underlies these problems. The DOE deputy of Natural Resources, for example, mentioned the growing population density of Tehran since the Islamic Revolution and stated that the high population density had had detrimental effects on the condition of water, soil, and air. In particular, he stated, air pollution is currently seen as the most tangible environmental problem in the city. Despite these problems, he continued, Iranians were not giving proper attention to the environment: “One of our difficulties in governance is in the realm of the environment. Its root causes, observed even before the Islamic Revolution, are the attitudes of citizens not prioritizing this realm and their subsequent irresponsible behaviors.” In the light of this statement, the DOE deputy spells out their expectation for the ulama (the clerics of Islam) in combatting environmental problems in Iran. Because of their prevalent influence on the realm of spirituality especially at times of crises, the DOE considers that the ulama can provide the citizens with moral education in ways that raise their environmental awareness and thereby build a culture attentive to the environment in Iranian society. The DOE thus recognizes an underlying cause of environmental problems, particularly in the moral dimension of humans. It is in this aspect of environmental problems that the ulama are anticipated to exercise their expertise in Islam. As examined later, the Supreme Leader endorses this vision and underscores these roles of religious practitioners.

Concretely, how are environmental issues addressed from the perspective of Islam? Many religious leaders use accounts of the Quran or Hadith to draw one’s attention to environmentally-conscious thoughts and behaviors cherished in Islamic traditions. As an example, Ma'sumeh Ebtekar, the DOE head, elaborated on an anecdote of a symbolic female figure of Islam in order to address environmental problems in the same meeting that I attended in March of 2016. She referred to the story of Fatemah whose epithet, Sadeqeh Tahre, is said to have association with nature. The highlight of her anecdote was, as Ebtekar reminded us, that her dowry was water. Ebtekar took this story to suggest that Fatemah gave a moral lesson concerning nature for the generations to come in the future when spirituality is lost. In this light, the anecdote is relevant to today’s generation, which has something to learn from it with regard to spirituality, cleanliness, and environmental problems. Furthermore, she emphasized that today’s lost spirituality is related to the

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5 The singular form of a’immah in Persian (Arabic) is enam. As it appears later, Emam Jomeh’ refers to a Friday prayer leader.
material aspect of environmental destruction. Yet we separate the spiritual from the material as well as the world from the life hereafter. This was what she viewed to be a fundamental plight of humanity on which Islam could shed light. Thus, Ebtekar expanded on a story found in Islamic traditions to convey the moral importance of environmental efforts from the viewpoint of Islam.

Ebtekar’s view on lost spirituality is shared by some intellectuals specializing in Islamic environmental philosophy and ayatollahs (a title given to Shiite clerics) in Iran, indicating that there exists some overlap with regard to the ways in which Islam is called on to address environmental issues. Bidhendi et al. (2015), for example, argue that, because religious faith has been declining recently, the principles of nature and morality – the divine laws to which nature submit and humans are made responsible to submit – have become separated from each other. Consequently, they continue, humans are becoming strangers to nature and start subjugating it without restraint. In this light, Islam helps recognize the religious values and meanings reflected in nature, thus providing a corrective framework for human behaviors. Some ayatollahs, who are critical of the current establishment at times, also voiced similar statements concerning environmental problems in Iran; as an example, Ayatollahs Mousavi Ardebili and Rafsanjani repeatedly deplored the dire consequences of environmental deterioration they now face in the country, and they ascribed their fundamental cause to Iranians’ ignorance or lack of understanding of religious values championed by Islam.⁶ Ebtekar’s address in the meeting thus reveals a point of view that is shared by some religious and non-religious experts on environmental matters and indicates that their way of drawing upon Islam despite their progressive political stance is, as we see below, compatible to and even aligned with that of the current establishment.

Iran’s Supreme Leader, Ayatollah Khamenei, like Ebtekar, has recently been speaking about the environmental crisis in Iran. In a speech of 2015, by using some ayas (ayat)⁷ in the Quran, he calls on Iranians to evoke their sense of moral obligation for environmental protection. The ayas employed refer to the relationship between God and humans, and clarify humans’ roles and obligations to their surrounding environment. For example: “God created the land for humans.” He interprets this aya in the following way. The land that God created belongs to everyone, not to particular individuals. Since it is the possession of everyone on earth, he emphasizes, all are equally responsible for its protection. Yet, that does not mean that humans must refrain entirely from utilizing natural resources. In the speech, Ayatollah Khamenei presents two ayas to complement the aya just quoted: “God obliged you to make the lands come into fruition,” and “The balance between nature and humans must be maintained.” Drawing on these ayas, he puts forward environmental policies in which Iran utilizes its natural resources and pursues development activities, albeit modestly and with constraints. Furthermore, Islam serves as a means through which this modest attitude is

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⁶ For example, see the following links: http://www.irna.ir/fa/News/82251113/, http://www.mehrnews.com/news/3559378/

⁷ In Persian (Arabic), the plural form of aya is written as ayat. In this paper, I refer to ayat as ayas, which is the plural written form of aya in English.
cultivated, a process called culture building (*farhang sazi*). In this sense, Islam plays a particular role in laying out environmental activities and attitudes in Iran.

Given the expectations that they will take the role of a moral authority in the realm of the environment, in what ways do leading practitioners of Islam, the *ulama*, address and conceive of environmental problems? This kind of question helps us to see the degree to which Islamic viewpoints are projected on their understanding of environmental problems and to examine how their approach is different from or similar to the ones employed by non-religious environmentalists.

Toward the end of the meeting I attended, there was a question and answer session during which about ten Friday prayer leaders raised questions concerning the environmental problems that they face in their own regions. In other words, they were addressing these issues as a moral authority representing the voices of their residents. One immediate feature that stood out was that some of them were addressing issues relevant to Islamic traditions, thus reflecting their religious backgrounds. For example, an *Emam Jomeh* of Shahriar expressed an uneasy feeling about trees being vandalized in the region and asked the DOE for help on this matter. He mentioned that, because trees represent a living force that gives life, preventing such vandalism is an urgent task. Another *Emam Jomeh* from Damavand raised issues of stray dogs in a residential area, for dogs are considered “unclean” in Islamic traditions. Some problematized “dismissive” attitudes towards land, especially in a religiously revered area. He criticized these dismissive attitudes with reference to the construction projects that end up obstructing aerial views around venerated mosques in a holy city. These examples demonstrate how particular issues became environmentally problematic among the practitioners of Islam, revealing a dimension that is emerging through Islam in a historically particular manner.

It is also notable that many questions raised in the meeting concerned the practical management of the environment. For example, one participant complained that the inequality of water availability in his region resulted from a lack of transparency in environmental management; he demanded that environmental management be implemented in more efficient ways so as to prevent such problems. It turned out that lack of coordination in environmental programs was a common problem over Tehran Province, and this problem spilled into various realms of the environment. Among them were litter, neglected sewage systems, destruction of forests and mountains, and unpleasant smells emanating from a nearby canal. Many *ulama* view the environment as a congregation of various elements both in scale and kind, each of which is continually affecting and affected by each other. Based on these perspectives, they considered program coordination to be a key item on the environmental agenda. For the *ulama*, as practitioners of Islam, moral dimensions of environmental problems are as important as practical concerns.
Reception of an Environmental Program: *ruz-e Derakhtkari*

As previously mentioned, trees signify a sacred characteristic of living beings according to Islamic traditions. While staying in Tehran in 2015, I came across an environmental themed day called “Tree Planting Day” (*ruz-e derakhtkari*). The promotional advertisements for this event were ubiquitously seen in such public places as squares, universities, and even overpasses on highways. The media also often introduced this event by praising the positive attributes of trees. For example, there was a banner hanging on the overpass that read, “*ruz-e Derakhtkari*, it is one of the most blessed days of the Islamic Republic.”\(^8\) Or, they put up images of green trees on public roads to draw citizens’ attention to their sacred characteristics embraced in Islamic traditions.

In fact, the practice of tree planting is grounded in the teachings of Islam at an official level. In regard to tree planting, the Prophet Mohammad is credited with stating that “Every person, plant trees and preserve them so as to bear fruits. The more fruits you have, the more the person will be rewarded by God.”\(^9\) Along with these sacred characteristics defined in Islam, on numerous occasions of *ruz-e derakhtkari*, Ayatollah Khamenei has addressed the importance of trees from the viewpoint of Islam. In a *derakhtkari* ceremony in 2011, for example, he stated as follows: “God willing, planting trees, the name and deed of which are recognized during this time of the year and hopefully remain so for the rest, will be a source of the country’s blessing and prosperity...safekeeping of trees and prevention of cutting down trees are advocated in the sacred Sharia and Hadith.”\(^10\) On another occasion, he introduced trees as a symbol of life and living beings in nature and referred to them as a holy miracle. According to his account, minute operations that dictate the workings of trees are miraculous by themselves; trees tap the unreachable resources beneath the earth’s surface, transport soil particles, and process them into a beautiful assembly.\(^11\) Thus, Ayatollah Khamenei turns to the symbolic and material significance of trees ascribed to the Prophet to build on his argument for tree planting activities today. His take on *derakhtkari* represents an official reading of its activity that is based on Islam. To what extent, then, is this reading different from or similar to those of people who actually do the work of tree planting? In what ways are internal debates concerning Islam unfolding with respect to this event? In this light, examination of my participant observation in *ruz-e derakhtkari* helps show how these religious messages about trees are received and communicated by the event participants.

On an early Thursday morning, I joined an event in which participants planted saplings in a suburb of Tehran. The participants aimed to restore the water level of a reservoir by planting trees, for tree roots keep moisture long enough for it to seep into the reservoir. The event organizers were a group of environmental activists and volunteers, and the total

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\(^8\) It is a quotation from the ceremony of *ruz-e derakhtkari* in 1390 (2011).


\(^10\) 12/13/90 (03/05/2012).

\(^11\) 03/12/68 (06/02/1989).
number of participants was roughly 100. Some came to the site alone, but many were there with their families and friends. The participants included both males and females in middle-class looking clothing, and the young and elderly whose ages ranged from their teens to their 60s. Some dressed in a religiously modest manner while many dressed more loosely.

I had become acquainted with many of the event organizers through numerous visits to their office in previous years. They are members of environmental NGOs in Tehran and are experienced with organizing environmental awareness events geared toward non-expert citizens, such as trash-picking in nearby mountains and volunteering at local schools. The relationship between the DOE and NGOs is a mutual one; the DOE normally keeps in check the activities of environmental NGOs by requiring them to register in the official roster. Thus, environmental NGOs are generally required to design and execute their activities within the political framework of the government, whether they be internationally-funded workshops, locally organized environmental campaigns, or official government events like the tree-planting event. In this light, the tree-planting event was an interesting opportunity to witness the relationship between the two parties.

The event commenced with a physical stretch that was a warm-up exercise for a 30-minute walk to the top of a hill. On our way to the top, an event organizer made a couple of stops to explain the scenery to the participants; for example, he described what the scenery looked like before the Islamic Revolution and how it has changed in the present. He mentioned that the mismanagement of a dam caused a lake to dry up, and that planting trees would help restore the water level of that lake. At other times, he introduced to the audience different kinds of trees and plants found along the path and stressed the importance of maintaining their diversity. According to him, these explanations were intended to remind the participants to have consideration for their surrounding environment.

Once we got to the top, we began planting trees. A leading volunteer announced that the names of the participants would be printed in an event brochure for coming years. Another volunteer urged the audience to circulate their activities to the public through active use of photos and hashtags in social networking sites. Each group constituted roughly six to ten volunteers and reached the designated area for this year’s event. Some participants directed my attention to several far or nearby areas that had been used in previous years’ activities; some areas were covered with half-grown trees, yet others looked almost bare, indicating that tree-planting activities had taken place at different times. In the course of conversation, I was also informed that it would take twenty years or more before trees become full-grown and therefore would begin to have substantial effects on the water level of the reservoir.

After a short while, the organizers distributed to each group a bundle of saplings, bags of fertilized soil, and a shovel. They showed a three-step demonstration of how to plant the saplings: each group dug a hole first, poured in the fertilized soil with a sapling, and then trod down the ground to fix the sapling. Some participants looked adept at planting and instructed others who might have been unfamiliar with this activity, like myself. Soon after planting began, however, the novices were also quickly learning the entire procedure. While
engaging in these activities, the participants in my group were casually exchanging words with each other and conversing about their everyday things, such as common friends they had or had not seen lately, recent photos or comments they posted on Instagram, places they visited for vacation, and plans for the coming (Persian) New Year. Occasionally, other group members, who were their “environmentalist” friends, joined us and had similar conversations. For the rest of the time, no specific words about the event were mentioned by the event organizers. It took us a little over an hour to finish planting a bag of saplings before leaving the site.

The discourses on the environment that I heard during this event were noticeably scientific or ecological, but were hardly the kinds implied in promotional drives or when religious leaders discuss *ruz-e derakhkari* with the public. When I pointed this out and asked them about what appeared to be a disjuncture between these environmental discourses, many of my interviewees saw no rift between the two. Rather, these seem to represent two different positions on the same scale. Regarding these discourses of the environment, for example, one interviewee stressed the ecological aspects of their activities, while, at the same time, referring to Islam as a moral principle through which their attitudes towards the environment are established: “The Quran acknowledges the rights of humans, including not just those of economy and finance, but also those of having healthy air, water, and soil. The blessing of humans is an important issue in the holy book. We see from this viewpoint a necessity to confront the obstacles that threaten the blessing of lives.” For him, the teachings of the Quran constitute an essential backbone of environmental activities. For some, Islam provides a cosmological framework to comprehend environmental problems, and humans bear responsibility to tackle them: “The miraculous creation and harmony seen in the mechanism of the earth are being deteriorated. We humans created the problems, and therefore we must be the ones to fix them.”

I also encountered an environmental activist who did not see an immediate connection between the two and told me that “the studies of the environment are based on science, while Islam essentially concerns the moral matters of everyday life.” Thus, I was exposed to a broad range of viewpoints in which the relationships concerning Islam, environment, and science are heterogeneous and shifting. My interviews and observation show that the environment has become a realm where science and Islam are increasingly intersecting and changing their relations: for some Islam might not be entirely relevant to science, while others see the relationship differently and argue that Islam matters in the scientific management of the environment. Moreover, one important leitmotif was coming into view: scientific discourses are becoming influential and prestigious through science-based environmental projects in recent years (Abe 2012, 2013). What is interesting is that the Iranian government is addressing environmental issues from the viewpoints of Islam and that Islamic tradition is developing in ways that encompass scientific discourses and practices.
Science and Islam in Iran

The Iranian government, while taking pride in their nation’s Islamic heritage, has increasingly embarked on science-based environmental projects. What is the nature of the relationship between Islam and science in contemporary Iran? How are discourses of Islam from the past used to advance scientific environmental projects? Some government-sponsored projects disclose unique relationships between Islam and science in Iran and show how scientific discourses of the environment are viewed and practiced by the government. The DOE is Iran’s official leading institution of the environment, whose objective, according to its website, is

the realization of Article 50 of the Islamic Republic’s constitution for the protection of the environment and the assurance of correct and lasting development of the environment, while maintaining the appropriate balance between sustainable development, the restoration of beings, and the improvement of the quality of human beings.\(^{12}\)

Genealogical studies on environmental politics in Iran suggest that the scope and varieties in environmental institutions and regulations have increased their complexities since the Iran-Iraq war ended in 1988 and that science and technology have played a greater role in the management of the environment (Saheb 2015).

The DOE has completed the environmental assessment of various scientific projects in recent years. The list of projects that the DOE is currently monitoring gives a glimpse of their variety and scale.\(^{13}\) Projects cover: roads and railways, energy, oil and gas industries, oil and gas pipelines, mining industries, water supply, services, and agriculture. The list shows the kinds of environmental fields that the DOE is attempting to regulate and where it is concentrating its efforts. From this list, it becomes evident that its efforts are focused especially on fields relating to oil, gas, mining, and water. These are also the major fields where the concept of sustainable development (towseh-ye paydar)\(^ {14}\) is practiced and is developing. Furthermore, the scale of projects in progress shows the extensive areas of land which they are attempting to bring under control; projects listed as implemented or currently planned cover a wide range of geological regions over the country. The regions covered include, for example, those of the mountains, oceans and lakes, forests, deserts, as well as areas in need of drinking water and those supplied with dam water. The list of environmental projects thus displays the broad extent to which scientific and technological developments are currently undertaken in Iran and reveals how environmental problems have become a venue through which discourses and practices of science are shored up in the governance of the country.

\(^{12}\) http://www.doe.ir/Portal/home/?202775/minshoor/06/05/16 accessed.


\(^{14}\) Iran attended the Earth Summit (U.N. Conference on Environment and Development) held in Rio De Janeiro in 1992. Delegates adopted a new economic development approach that will not place damaging stress on natural resources, an approach that we now call sustainable development.
I had opportunities to witness these developments of science-based environmental projects while in Tehran. The annual International Exhibition of the Environment is a DOE-sponsored environmental event, and it is a grand showcase for the achievements and innovations of environmental projects in Iran and elsewhere. The 2016 exhibition marked the 15th anniversary of the event and placed a special emphasis on the practice of sustainable development. A variety of organizations and companies from different countries, both public and private ones, partake in this event and each sets up its own booth for display in an elaborate manner, usually with handouts ready. In this year’s opening ceremony, Ma’sumeh Ebtekar addressed Iran’s international efforts to overcome environmental crises and its policies to carry out economic activities with an eye on the environment, and concluded that sustainable development would be a key for the future of Iran and the international community.

In the exhibition halls located in northern Tehran, the participants this year included companies in the automobile, chemical, oil, electricity, and soil industries, along with organizations working to preserve natural resources and wild life. The presence of foreign countries in the exhibition was more evident this year than in 2011, the year when I last attended the exhibition; whereas China was the major international figure five years ago, this time the DOE enthusiastically received participants from Japan, Finland, and Austria, welcoming the opportunity to incorporate their technologies into various fields of the environment in Iran. This government-sponsored event, as well as other projects discussed here, indicate that Iran is vigorously pursuing the path of science while combatting environmental problems. It is also observed that the environment has become a field in which Iran is increasingly opening its market to the international community.16

How are these scientific developments in the fields relating to the environment assimilated into the existing traditions of Islam, and how could they be understood as contributing to the Islamic practices from the past into the future? In these fields, discourses of Islam are uniquely drawn upon to make sense of environmental practices in light of what they see as the correct interpretation of Islam. Despite the cultural revolution that followed immediately after the Islamic Revolution, Iran has come to justify and endorse its scientific endeavor from an Islamic standpoint (Lotfalian 2004, 2009). There exist internal debates within Iran as to why Iranians should morally pursue science. For example, a semi-official news agency Mehr News recently published an abbreviated draft article by a well-respected leader of the Islamic Revolution, Ayatollah Morteza Motahhari (1919-1979). The Mehr News

15 The call for the exhibition is available: http://www.doe.ir/Portal/home/?news/374501/374611/477400/Call-for-Fifteenth-International-Environment-Exhibition.
16 This is one of the major points that Ebtekar stressed during her opening speech at the International Environment Exhibition.
17 During the early phase of the cultural revolution of 1980-1987 in Iran, the revolutionary regime viewed science originating in the West as un-Islamic and shut down scientific research institutions and programs. See Khosrokhabar (2004a, 2004b).
18 Iran’s endeavors in modern science began in the mid-nineteenth century. For example, see the works of Arjomand (1997), Doostdar (2016), Najmabadi (2014), Ringer (2001), Schayegh (2009).
agency, a semiofficial news outlet of the Islamic Republic, as well as other media outlets, often republish the writings and statements of popular revolutionary leaders of the past to legitimatize and affirm their views on particular issues. The account of Ayatollah Motahhari by Mehr News therefore indicates that the rationale presented in the article is considered legitimate and should be emulated as an official discourse. In the article, Ayatollah Motahhari elaborates on Islamic reasoning to argue that scientific pursuits and activities leave no space of contradiction with the Islamic tradition, against critics who claim otherwise.\(^\text{19}\) He bases his argument on the Hadith and points out the corollary of delving into scientific inquiries in Islamic tradition: “The believers must search for science,\(^\text{20}\) even if one is required to travel to China.” That means, he wrote, science has no particular home, and one must go to any place in the world and adopt it. He also cites the following saying of the Prophet to defend his position: “A learned, scientific statement is misplaced somewhere. Wherever pious believers encounter it, they are to try to own it.” Science is referred to as a lost belonging of believers in this context, and he writes that the believers would try to pick up anything relating to science upon encountering it. According to Ayatollah Motahhari and many others,\(^\text{21}\) science should not be a hindrance to Muslims in correctly practicing Islam.\(^\text{22}\) On the contrary, the pursuance of it will be a natural activity of pious believers. From these perspectives, scientific projects that aim to lessen environmental problems – some examples of which were displayed at the International Environmental Exhibition – are deemed appropriate and uncontroversial. Furthermore, the development of science and technology has come to be recognized as an embodiment of national pride. For a majority of Iranians, Iran’s nuclear program is viewed as an achievement of their own, not a mere copy of a Western project. On the back of Iran’s fifty-thousand rial bill, the symbol of the nuclear program is depicted along with a line from the Hadith: “Science will be obtained by the people of Persia, even if it is far away in Soraya.\(^\text{23}\)” This shows that Iranians take pride themselves in the pursuance of scientific activities and solidify their identity around them.

\(^\text{19}\) Mehr News, 04/07/1392 (06/28/2013).

\(^\text{20}\) The Persian term shown in the original text for “science” is elm. The meaning of the word elm has evolved over time; elm can be roughly translated as modern science in the present, yet it has slightly different connotations in Iran from those associated with it outside the country (Mansouri 2013). The word elm quoted in the Hadith refers to science that is more broadly defined than modern science, denoting general knowledge that will lead humans to the recognition of God’s divinity, including religious knowledge as well as what we now call physics, mathematics, and medicine, etc. See more on this subject here: http://www.quran.porsemani.ir/node/4471.

\(^\text{21}\) Lotfalian (2004), for example, discusses scientific rationality pursued and carried out by the first Islamic Republic’s prime minister, Mehdi Bazargan.

\(^\text{22}\) The reception of the social sciences in Iran is somewhat ambiguous. Although Ayatollah Khamenei has at times expressed his dissatisfaction with social sciences programs in domestic higher educational institutions, social scientists continue to play a crucial role in designing public policies.

\(^\text{23}\) Soraya refers to one of star clusters in the constellation. In the hadith, the term is used to signify a very distant place.
Recent Iranian success in advancing the nation’s nuclear program also exhibits an increasing connection between science and nationalism in the country.\textsuperscript{24}

A religious authority in the field of the environment presents a similar kind of reasoning with respect to the Islamic perspective on science.\textsuperscript{25} Ayatollah Javadi-Amoli is a marja’ taqlid (the highest ranking religious authority among Shiites) and is recognized widely as an authoritative figure in Iran on matters of Islam and the environment. His name was, indeed, often mentioned during the meeting between DOE officials and Friday prayer leaders, my conversations with environmentalists and non-expert citizens, and my interviews with DOE employees. In the popular Tehran-based newspaper \textit{Hamshahri}, he expresses his view on the relationship between religion and science as follows:

Some critics of religious science are doubtful about the substantiation of science through religion. In case mistakes or deficiencies are found in science, they claim that that is because those perspectives and methodologies are based on religion...In principle, however, it is not the Prophets (the masters of the Shari‘at) or the religious foundation of science that are causing mistakes and deficiencies. The problem lies rather in human interpretations of religious texts.\textsuperscript{26}

For him, not only is the religious conceptual framework compatible with that of science, but the latter is encompassed in the former. He points to the totality of Islam as a basis to include all sciences within the framework of religion (\textit{din}). All sciences, he says, are perceived through human wisdom which itself is bestowed by God. Therefore, all sciences, whether they be natural sciences or other kinds, are religiously oriented. All end results of reason and statement will be religious, and science without religion will not exist. He applies this logic to exploring environmental issues in his seminal book \textit{Islam and the Environment}:

“Although environmental sciences have concerns of the natural and experimental sciences, their effectiveness in improving human ways of life, health, and vitality has its background in the human sciences and religious orientations” (Javadi-Amoli 2009: 127). According to him, divine revelation plays an essential role in clarifying and complementing aspects that might not be completely comprehensible by the natural sciences which in his view have been developing based on human interpretations. It is against this background that DOE’s scientific environmental projects can be put into practice, alongside moral education grounded in Islamic tradition.\textsuperscript{27} The examples of Ayatollahs Motahhari and Javadi-Amoli show a historically particular manner in which Islam is drawn upon to address emergent

\textsuperscript{24} In the midst of negotiations on Iran’s nuclear program between Iran and six nations, the following slogan became highly popular throughout Iran: “Nuclear energy is our absolute right” (\textit{enrzhi hasteh‘yi haqq-ye mosallam-e mast}).

\textsuperscript{25} See note 19.

\textsuperscript{26} \textit{Hamshahri}, 01/08/1394 (03/28/2015).

\textsuperscript{27} For example, the roles of Islam are mentioned in the government-sponsored Urumie Lake project and a university environment project at Sharif University of Technology, one of Iran’s leading engineering institutions.
environmental issues today, thus revealing a contingent relationship between Islam, science, and the environment. Arguments such as those examined in this article are emerging precisely because modern science has become prestigious in Iranian society and it has become worth the regime’s effort to frame it from the standpoint of Islam. This, however, does not mean that all environmentalists are conforming to this line of argument, as some scientists and NGO environmentalists feel dismissive of the religious approach to environmental problems. The examples examined here rather suggest that the styles of reasoning among religious authorities in Iran – a predominantly Islamic nation – powerfully condition a range of parameters within which various kinds of discussions about the environment can take place.

**Conclusion**

In recent years, environmental problems are posing serious challenges to the everyday lives of ordinary Iranians. These problems have obliged the Iranian government and other institutions to take systematic measures to prevent them from spreading further. Among various initiatives, the Islamic approach to environmental problems is gradually becoming prominent in contemporary Iran, as its government and religious circles increasingly seek to address those issues from religious perspectives. Given these circumstances, the present work has used the concept of tradition to explore a variety of ways in which Islam is uniquely drawn upon, discussed, and put into practice in facing environmental problems in the country. In doing so, it aimed to illuminate how a wide range of ethical debates concerning the Islamic approach to environmental problems are unfolding in ways that reflect the practitioners’ understandings toward the Islamic past and future, thereby contributing to Islamic tradition.

This paper has highlighted the viewpoints of leading religious and non-religious practitioners in Iran concerning environmental issues, and presented a parameter of viewpoints within which different environmental programs are discussed, coordinated and implemented. It has become evident that science is rapidly gaining ground in the management of the environment and that religious leaders nowadays waste no time in providing Islamic rationales for science-based environmental practices. Scientific achievements at the same time are considered to personify Iran’s national characteristics and identity and therefore empower its national pride. Furthermore, the environment is a field that has recently opened up for the international community, thus making Iran susceptible and perhaps vulnerable to the tides of the global political economy. In this sense, the field of the environment has become a key intersection where Islam, science, and nationalism meet and continue to develop in ways that reflect Iranian contexts.
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