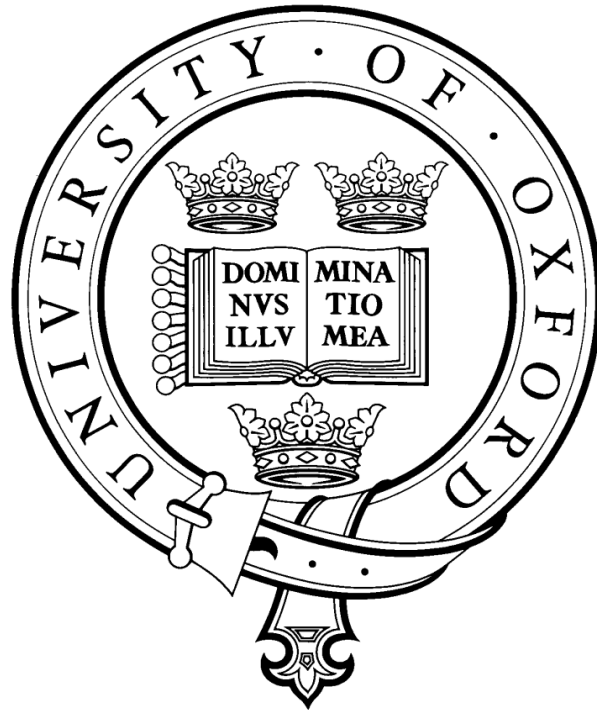


Environmentalism in Qatar:
Examining the Influence of Islamic Ethics on
Environmental Thought and Practice



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ABSTRACT

This thesis examines environmental discourses of state and non-state actors in Qatar, with a particular focus on how Islamic ethical values and teachings influence environmental thought and practice. Aside from its economic value as a leading liquid natural gas exporter, Qatar holds significant status as one of the most affluent Arab Muslim states vying for political and economic power regionally and globally while facing numerous environmental vulnerabilities (e.g., water scarcity, rising temperatures, air/water pollution, desertification, biodiversity loss, and sea level rise). Despite its constitutional identity as an Arab Muslim country, gaping rifts exist between Qatar's interest in preserving its cultural, religious, and natural heritage on one hand, and its environmental realities and practices on the other.

This study investigates the apparent disconnect between state aspirations and industrial/energy praxis causing or exacerbating regional/global environmental risks and social inequities—especially between wealthy Qataris and migrant laborers. Utilizing an environmental governance framework and critical discourse analysis, this research unveils power asymmetries between state and non-state actors in Qatar and elucidates the ways in which non-state actors struggle to access environmental data, establish non-governmental organizations free from strict government oversight, and mobilize to resist the hegemony of state and corporate powers. This study also demonstrates how state authorities and their corporate allies adopt predominately technocratic and market-based approaches to resolving environmental problems and maintain control over environmental discourses and decisions while actively depoliticizing climate discourses. In aiming to bridge theoretical religious ideals with environmental practice, this research also investigates reasons why Islamic environmentalism does not feature more prominently in the country. Although some state-sponsored environmental initiatives inspired by religious values and teachings have yielded educational, scientific, and charitable benefits, this study reveals how most environmental activism of non-state actors remains highly state-controlled, apolitical, areligious, and dominated by non-Arab expatriates—with minimal to no representation from Qatari citizens.

Based on these findings, this thesis argues that the rise of a successful and sustainable environmental movement in Qatar necessitates 1) greater contribution and public engagement from indigenous Qataris, 2) tactful and incremental politicization (particularly from citizens holding greater social/political influence than expatriates/migrants), 3) more intersectional approaches to tackling the country's most pressing socio-environmental needs, and 4) greater synergistic collaboration between religious scholars, imams, and activists to advance ecological consciousness and environmental education based on Islamic ethical and scriptural paradigms echoing and bolstering noble Arab virtues. In centering the voices of indigenous, religious and non-state actors, this inter-/transdisciplinary research demonstrates the numerous ways in which environmental struggles to protect natural resources and habitats in an extractivist, monarchic Muslim state intersect with social struggles to secure people's dignity, health, faith, and basic human rights.

ABBREVIATIONS

AYCMQ	Arab Youth Climate Movement Qatar
BP	British Petroleum / Beyond Petroleum
CEM	Commission on Ecosystem Management
CILE	Center for Islamic Legislation and Ethics
CIS	College of Islamic Studies
COP	Conference of the Parties
CSS	Carbon Sequestration and Storage
CUREC	Central University Research Ethics Committee
DEAP	Doha Environmental Actions Project
FEC	Friends of the Environment Center
FEE	Foundation for Environmental Education
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GSDP	General Secretariat for Development Planning
HA	Hifz Al Naema
HBKU	Hamad bin Khalifa University
IUCN	International Union for the Conservation of Nature
IUMS	International Union of Muslim Scholars
LNG	Liquid Natural Gas
MDPS	Ministry of Development Planning and Statistics
MENA	Middle East & North Africa
MME	Ministry of Municipality and the Environment*
MPH	Ministry of Public Health
NDS	National Development Strategy
NGO	Non-Governmental Organization
NO _x	Nitrogen Oxides
OAPGRC	Oman Animal and Plant Genetic Resources Center
QBG	Qatar Botanic Garden
QEERI	Qatar Environment and Energy Research Institute
QF	Qatar Foundation
QGBC	Qatar Green Building Council
QNHG	Qatar Natural History Group
QNV	Qatar National Vision
QP	Qatar Petroleum**
QSTP	Qatar Science and Technology Park
SO _x	Sulfur Oxides
TNC	Transnational Corporation
UAE	United Arab Emirates
UNESCO	United Nations Educational, Scientific and Cultural Organization
WWF	World Wildlife Fund / World Wide Fund for Nature

* Renamed Ministry of Environment and Climate Change

** Renamed Qatar Energy (QE)

ARABIC TRANSLITERATION TABLE

ء	ʾ (consonant)
ا / ي	ā (long vowel)
ب	b
ت / ة	t
ث	th
ج	j
ح	ḥ
خ	kh
د	d
ذ	dh
ر	r
ز	z
س	s
ش	sh
ص	ṣ
ض	ḍ
ط	ṭ
ظ	ẓ
ع	ʿ
غ	gh
ف	f
ق	q
ك	k
ل	l
م	m
ن	n
ه	h
و	w (consonant); ū (long vowel)
ي	y (consonant); ī (long vowel)

CHAPTER 1: INTRODUCTION

1.1 Background

Intellectual concern for humanity's relationship with the natural world predates contemporary ecological and environmental discourses by several centuries at the least (Guha, 2014). Yet, the global scale and speed of natural resource depletion and the increasing visibility of environmental degradation has led to an unprecedented upsurge in collective environmental action over the last sixty years (Haq & Paul, 2012).¹ Environmentalism, which is distinguished from literary and scientific appreciation for nature's beauty, often manifests in the desire to protect ecological systems (including living communities and their physical surroundings) from harm, pollution, degradation, or destruction (O'Riordan, 1980 as cited in Milton, 1993; Worster, 1994; Guha, 2014; Haq & Paul, 2012). In differentiating environmentalism from a private connection with or concern for nature, some historians view environmentalism as marked by a clear public engagement and plan of action to protest the degradation of habitats, lobby legislators, and/or promote less harmful technologies and lifestyles (Worster, 1994).

Expressions of environmentalism throughout the world vary significantly due to numerous factors, including the diversity of people's collective histories, political economies, cultural traditions and practices, values and worldviews, poverty and education levels, as well as political circumstances shaping the ways in

¹ Increased media coverage of pollution events (e.g., oil spills) along with advanced communication technologies have also contributed to the rise in environmental consciousness and concerted efforts to protect the environment.

which people organize relationships with nature and strategize to promote their environmental agendas. Although environmentalism exists both in the global North and South, historians have noted salient differences between their struggles (Guha, 2014). Environmentalism in the global South, for example, is still by and large based on a struggle with materialist needs and securing indigenous and poor people's right to live and access natural resources.² Environmentalism in formerly colonized regions as in Latin America – or of internally displaced and marginalized communities in the North, as in Canada, the U.S., and Australia – is often rooted in struggles to decolonize indigenous lands and cultures from old and new forms of political and economic domination (Anthios, 2022; Cubillos et al., 2023).

Although anti-colonial struggles after WWII may have contributed to ending European colonialism in the form of direct political control, the colonial mindset has endured in what many nature-society geographers and environmental philosophers describe as imperialist, anthropocentric, utilitarian, and coercive ideologies and practices towards nature that enabled colonial powers' exploitation and – in many cases – destruction of colonized lands to enrich the metropolises at the expense of the colonized (Adams & Mulligan, 2003). Geographers and social ecologists trace these colonial ideas and practices back to 18th century European Enlightenment values, including faith in the power of scientific knowledge and the human rational mind to control and conquer nature. Christian dogma, particularly in its Occidental form, has

² Doherty & Doyle (2007) note exceptions to this general characterization, such as highly prosperous elites in the South who enjoy wealth and affluence like their counterparts in the North.

also been critiqued (White, 1967) for establishing a dualism of man and nature, and believing in man's transcendence over nature and rightful mastery over it.³

With new hegemonic powers in the globalizing market and massive technological advances in the modern era, decolonial struggles continue as new industrial and corporate powers further colonize, commodify, and privatize the natural world and indigenous peoples lose more land to extractivist industries and large-scale urban developments (Langton, 2003; Perreault, 2018; Anthias, 2022; Cubillos et al., 2023). Emancipatory and natural resource conflicts in the global South can be juxtaposed with environmental concerns of relatively prosperous Northerners who may challenge the prevailing consumerist culture, for example, and call to a shift in values—from materialist to 'post-materialist' (Guha, 2014).⁴ They may also mobilize, organize, and collaborate with their governments to shape policies and laws that secure the rights of nonhuman species to live and thrive in habitats free of pollution and exploitation (Guha, 2014). Northern environmentalism is far from monolithic, of course, as is that of the South. Materialist struggles still exist in the North, as exemplified in the conditions of Australian Aborigines whom Doherty and Doyle (2007, p. 706) describe as "living a fourth world existence within a first world

³ Although White (1967) suggests these beliefs are implicated in the ecological crisis, his critiques of Christianity have been problematized (Afzaal, 2012) for not considering the impact of socio-historical contexts and worldviews on people's behavior with the natural world.

⁴ Nordhaus & Shellenberger (2007) argue that the birth of the environmental (and civil rights) movement in the U.S. during the 1960s was a consequence of increasing prosperity and affluence. According to these authors, environmentalist values (e.g., the strong urge to protect ecosystems) stem mostly from post-material needs and the pursuit of fulfillment as opposed to survival. In his review of these two authors' book *Break Through: From the Death of Environmentalism to the Politics of Possibility*, David Pellow (2008) refutes the argument that environmentalism stems from prosperity, citing multiple examples in the U.S. and worldwide of poor or marginalized communities championing environmental causes and standing against environmental destruction. Pellow argues that some of these communities engage in environmentalism in the name of economic security and wellbeing.

nation-state". Many environmental groups founded in Northern countries show sensitivity towards indigenous and marginalized people's human rights, traditions, and subsistence needs, and some environmental NGOs even resist state and corporate powers to protect the environment and its subservience to economic interests (Duffy, 2013; Doherty & Doyle, 2006). These organizations may be contrasted with conservation NGOs, whose origins can be traced back to the conservation movement prioritizing wildlife preservation during the colonial period.⁵ Although this movement has made great strides in protecting natural landscapes, it has also been criticized for actively displacing human communities in Western regions to create wilderness areas and national parks, and for reinforcing a conceptual and physical separation between people and nature (Adams & Mulligan, 2003; Duffy, 2013; Haq & Paul, 2012).

The diversity of global cultures, natural landscapes, and socio-environmental concerns continues to produce numerous forms of environmentalism with oft-divergent priorities and strategies (Doherty & Doyle, 2006). Historians, geographers and political sociologists have attempted to classify and trace the historical roots of these environmentalist trends appearing with complementary or even opposing agendas since the first modern environmental movement of the 1960s (Doherty & Doyle, 2006). This task is becoming increasingly difficult, though, as environmental

⁵ The conservationist ethic that developed during the 19th century was a social reaction to the massive expansion of industry and rapid urbanization in Europe and North America. Activists during this era campaigned to preserve natural landscapes and wildlife refuges mainly for their aesthetic and recreational value (See Haq & Paul, 2012). The conservation movement also included utilitarian conservationists like U.S. President Roosevelt's Chief Forester Gifford Pinchot, who opposed excessive resource exploitation and developed sustained-yield management systems to conserve natural resources for the sake of protecting the national economy (See Worster, 1994). This movement preceded the birth of the new environmental movement in the 1960s, which initiated a wave of campaigns focusing on broader issues such as nuclear energy, hazardous waste, and toxic pollution (See Haq & Paul, 2012).

groups continue to adopt multi-issue struggles, recognize linkages between human rights and environmental protection, and transcend state and regional boundaries to forge transnational networks and alliances (Bandy & Smith, 2005 as cited in Doherty & Doyle, 2006).

Despite the increasing prevalence of Islamic environmentalism throughout the Muslim world, studies on Islamic environmental thought and practice constitute a small segment of the wider body of literature on environmentalism, specifically religious environmentalism. Classical and contemporary Muslim scholars have written extensively on the significance of the natural world in Islam and many eco-theologians and environmentalists have delineated Islamic concepts and ethical principles pertaining to people's relationship with the natural world. Yet, relatively little is written on how Islamic environmental thought practically influences Muslims' outlook and advocacy for the natural environment in contemporary times.

This study considers Islamic environmentalism a distinct form of religious environmentalism clearly rooted in an Islamic worldview and inspired, at least in part, by Islamic beliefs, principles, and teachings derived from the Qur'an and/or Sunnah. Islamic environmentalism does not apply to Muslims' involvement in secular environmental causes solely for the environment's sake (Foltz, 2003). Rather, Islamic environmentalism refers to environmental advocacy aimed primarily at actualizing particular Islamic socio-ethical ideals (e.g., justice, mercy, and equity) or achieving higher religious ends (e.g., pleasing God and safeguarding God's creation). In its explicit and public form, Islamic environmentalism can be viewed as a manifestation of Islamic activism, with environmental initiatives serving

as some of the mediums through which Muslims express their religious commitment.

1.2 Significance of the Arab Gulf Region

One of the regions of the Muslim world in which environmentalism – let alone Islamic environmentalism – has been greatly understudied is the Arab Gulf region. This region is of particular interest for Islamic environmentalist discourses as well as political economic and ecological discourses multiple reasons. The Arab Gulf region shares a broad, overarching religious and cultural identity (as Arab Muslims with tribal affiliations). It also exhibits many similarities – particularly across its Gulf Cooperation Council (GCC) countries⁶ – in political structures/economies heavily influenced by the presence of abundant petroleum reserves and wealth afforded by fossil fuel rents. Although Gulf countries differ in many ways, including particular religious and cultural demographics (e.g., ratio/distribution of Sunnī and Shīʿī, tribal affiliations, etc.), degrees of political stability, types/quantities of natural resources, and levels of wealth, their close proximity and shared climatic/environmental conditions, geographic borders and bodies of water make them not only susceptible to similar environmental threats,⁷ but they also make some of these countries more partially and collectively responsible for the environmental risks—not to mention the civil strife and humanitarian crises (as in Yemen)—faced by their regional neighbors. In addition to regional politics, the

⁶ The GCC is comprised of the following countries: Saudi Arabia, Kuwait, Bahrain, Qatar, UAE, and Oman.

⁷ These vulnerabilities include water scarcity, increasing temperatures, air and water pollution, desertification, biodiversity loss, and sea level rise.

modern history of this region and vested economic interests of Western nations and transnational corporations (TNCs) continue to influence the ways these states use and exploit land and natural resources, further exacerbating the region's environmental vulnerabilities and distancing socio-environmental relations from their indigenous cultural roots and religious heritage.

Although British imperialism did not drain the natural resources of this region or radically restructure the British Protectorates' economies in its favor, the creation of modern nation states superimposed new political formations onto tribal societies with pre-existing multilayered structures of authority based on kinship. The encapsulation of indigenous peoples throughout the Arabian Peninsula into nation states altered the political geography of the region based on European traditions, thereby deepening the ideological legacy of colonialism and decreasing the freedom of these societies to deliberate independently on how to organize their relationships with each other and the natural world (Adams & Mulligan, 2003; Sato, 2016). While British withdrawal may have given these new states legal personalities equal to the former metropole, Sato (2016) argues that the independence of Bahrain, Qatar and the U.A.E. allowed both Britain and the U.S. to maintain an international order favoring Western interests in the region through collaboration and consensus, as opposed to direct interference and use of coercive measures.

While social scientists have shed light on resource conflicts and liberation struggles both in the global North and South, literature examining socio-environmental struggles in the Arab Gulf region is more scant. Although these states

are part of the global South,⁸ their extreme affluence and rapid industrialization raise questions about overconsumption and quality of life issues resembling post-materialist and post-industrialist concerns in the global North. Much of the academic literature on the political economy of these states focuses on energy politics and renewable energy initiatives without examining the socio-environmental consequences of neoliberal modes of governance and the dominance of market-based approaches to resolving environmental challenges like pollution and climate change (see sections 2.1.5 and 8.1.1). As these states have integrated well into the hegemonic neoliberal economic order (Ramadan, 2009), the various indigenous or hybrid forms of environmentalism engaging with or resisting the continued exploitation of these nations' resources and marginalization of its most vulnerable populations have yet to be studied. Furthermore, the extent to which local grassroots environmental initiatives have the power to influence environmental decision-making while drawing on indigenous cultures, religious ethics, or fusions of indigenous and non-indigenous ideas and strategies is not well documented in the literature. Despite shared environmental vulnerabilities across Arab Gulf countries, environmental advocacy within the region cannot be treated monolithically and understanding the various manifestations of religious and/or secular environmentalism in each country necessitates studying particular institutions, environmental discourses and practices within their respective social, cultural, and political contexts.

⁸ Doherty & Doyle (2006) note that the World Bank has, on some occasions, taken the oil-rich nations in the Middle East out of its 'South' categorization.

1.3 Why Qatar?

Among all the Arab Gulf states, this study seeks to examine the various expressions of environmentalism specifically in Qatar, with a particular focus on the potential and actual ways Islamic ethics and values influence environmental thought and practice in the country. Aside from logistical reasons facilitating my research in Qatar,⁹ I chose to focus on environmentalism in Qatar for multiple reasons. Despite its relatively small population and geographic size, Qatar holds significant status as one of the wealthiest Gulf countries that seeks to balance its religious/cultural identity with modernity while asserting its autonomy, (soft) power and leadership regionally and globally through various cultural, social, and economic projects and investments (Al-Horr et al., 2016). Its environmental discourse and state-sponsored sustainability initiatives also reveal a national interest in portraying Qatar as an environmental leader paving the way toward a sustainable future. The following sections describe some historical transformations that have facilitated Qatar's pursuit of its regional and global ambitions. They also address multiple political, social, and economic factors complicating any efforts to align Qatar's socio-environmental and cultural realities with its professed identity and ambitions. While these transformations and challenges are not entirely unique to Qatar, this research frames Islamic environmentalism as a potential leverage point to bridge gaping rifts between Qatar's professed environmental, cultural and religious ambitions with its ecological and socio-environmental realities.

⁹ Having lived and studied in Qatar from 2009-2011, I had existing contacts in Doha prior to field research and was easily able to navigate the capital once I arrived. Prior to my fieldwork in Qatar, I also managed to secure affordable housing through Hamad bin Khalifa University (HBKU) as an alumna who had completed a graduate program in what is now the College of Islamic Studies.

1.3.1 Abundant Petroleum Wealth

Before the discovery of oil in 1939 and its subsequent commercial development in 1949, Qatar's main economic activities were fishing, pearling, trade, and animal herding (Sillitoe, 2014). Pastoral communities moved seasonally depending on the rainfall and the amount of vegetation available for their camels, sheep, and goats (Al Shawi, 2002). The main sources of income for city dwelling merchants were pearl exports and import of basic consumer goods (Al Shawi, 2002; Al Othman & Clarke, 2014). With the economic crisis following World War I and the economic depression of the 1930s, the pearl industry declined as demand for luxury items like pearls decreased (Cottrell, 1980; Walsh, 2011). This industry eventually collapsed with the production of cultured pearls in Japan and the discovery and production of oil in Qatar (Walsh, 2011). Qatar's oil exports continued throughout the second half of the 20th century, which steadily increased the country's GDP and brought greater wealth and prosperity to its people (Walsh, 2011; Al Othman & Clarke, 2014). Agricultural production began in Qatar in the 1970s with farms producing many crops, but much of the land remains uncultivated due to the country's harsh climate and unfertile soil (Cottrell, 1980; Hassan, 1978). Water scarcity has been a fundamental problem impeding agricultural progress in Qatar, and the country has had to import most of its food, including meat, dairy products, wheat, fruits, and vegetables (Cottrell, 1980).

As the country reached peak oil towards the turn of the century, Qatar began exploiting its natural gas reserves in 1991 to maintain the flow of export revenues (Luomi, 2014). With the fall in oil prices in 1997, Qatar initiated its Liquid Natural

Gas (LNG) export program. In 2006, Qatar surpassed Indonesia as the largest LNG exporter in the world, and its revenues from gas exports exceeded its oil revenues for the first time in 2008 (Luomi, 2014). Qatar currently has the third largest natural reserves in the world after Russia and Iran. Natural gas remains Qatar's main domestic energy source, which it utilizes primarily for electricity generation, seawater desalination, and fueling the country's petrochemical industry (Luomi, 2014).

1.3.2 Rapid Industrialization & Economic Development

Due to large-scale expansion of its oil and gas industries, Qatar has developed one of the fastest growing economies in the world (Walsh, 2011). Before the first oil exports in 1949, Qatar's cities – including its capital Doha – lacked electricity, a local supply of water, and paved roads (Cottrell, 1980). Within the last fifty years, the vast wealth gained from extractivism (Perreault, 2018) and fossil fuel exports has allowed the state to build basic infrastructure for its cities, finance its rapid urban expansion, and construct a strong welfare system for its small national population—which constitutes less than 15% of the total population of Qatar (Gardner, 2014; World Population Review, 2022). This welfare system provides numerous social services and benefits to Qatari citizens, including free healthcare, free education, free utilities, and no taxes (Luomi, 2014; Walsh, 2011). In addition to its robust welfare system, elaborate patronage networks dampen the potential for autonomous, politically independent groups to emerge in Qatar (Kamrava, 2009). With the vast wealth Qatari nationals receive from the state, they can enjoy the luxury of living in large private homes with perpetual access to air-conditioning,

electricity and running water. Qatar is presently filled with paved roads, and it is not difficult to find Qatari families who own six to ten cars (Gardner, 2014).

Qatar's expansive hydrocarbon industries and LNG exports have also allowed this state to embark on a path of rapid economic development and urbanization. Mega construction projects dominate Qatar's urban development, with ever-increasing skyscrapers, museums, sports arenas, and expansive conurbations radically transforming its urban landscape. These large-scale construction projects have heavily exploited low-income migrant labor, which has drastically transformed Qatar's demographics over the last several decades and led to a socially and geographically segregated population along the lines of race, ethnicity, income, and social status.

Despite mild economic fluctuations in recent years, Qatar's rapid economic growth has allowed it to sustain one of the highest GDP per capita rankings worldwide (Ventura, 2022). While greatly increasing its citizens' standard of living, Qatar's economic growth and amassed wealth has contributed to Qataris having some of the most ecologically taxing lifestyles in the world. As of 2017, Qatar held the highest per capita ecological footprint of all countries worldwide (Ecological Footprint by Country 2022, 2022).¹⁰ Within its borders, this small country consumes food, energy, and goods and produces waste about nine times the level feasibly supported by the Earth's available resources and ecosystem services (Ecological Footprint of Countries 2017, 2022; Ecological Footprint by Country

¹⁰ This index represents how much land (including sea and freshwater) is required to support people's lifestyles. The land area is measured in global hectares (gha), which equates to 10,000 m². As of 2017, Qatar's per capita Ecological Footprint (14.6 gha) exceeded the global per capita biocapacity (1.6 gha).

2022, 2022).¹¹ In other words, if each global citizen lived like those in Qatar, then roughly nine planet Earths would be required to sustain the human population.

1.3.3 Overconsumption & Waste

Research reveals that people who earn higher annual incomes generate more waste per person as a result of their disproportionately higher levels of consumption (Clarke & Almannai, 2014). Analysis from a study conducted on solid municipal waste and its constituents in Gulf countries reveals that Qatar produces around two million tons of municipal waste per year (Al-Maaded, 2012). This figure amounts to 2.5kg of waste produced per capita every day. In Qatar, as in other Gulf countries, organic waste constitutes around 60% of the country's total municipal waste (Al-Maaded, 2012).¹² Much of this food ends up in landfill, where its decomposition produces greenhouse gases (e.g., methane) and contributes further to climate change (Al-Maaded, 2012; General Secretariat for Development Planning, 2011). Overconsumption of water also exacerbates Qatar's challenge of providing access to potable water without draining the country's freshwater reserves. In 2009, Qatar's per capita water footprint (3,000 m²) exceeded the global average by almost 2.5 times (Saif et al., 2014). Based on government statistics, Qatari nationals consumed 1,200 liters of water per day while expatriates (including low-income migrant workers) consumed an average of 150 liters per day (General Secretariat for Development Planning, 2011).

¹¹ This number (nine) is obtained by dividing a country's per capita Ecological Footprint by the Earth's available per capita biocapacity.

¹² According to this 2012 study, organic waste in Qatar constituted precisely 57% of its total municipal waste. Other Gulf countries producing high amounts of organic municipal waste include Oman (60%), Bahrain (59.1%), and Kuwait (51%).

Excessive consumption also applies to electricity use, which is reflected in the country's carbon footprint. As of 2013, Qatar's annual per capita consumption of electricity was 16,353 KWh, which by comparison exceeds the per capita electricity consumption in the U.S. by 25% (Saif et al., 2014). According to 2007 U.N. data, Qatar had the highest per capita CO₂ emissions on record in the world (Henfrey, 2014). Qatar's heavy industry and fuel combustion during energy production accounts for two-thirds (67%) of Qatar's CO₂ emissions. Both domestic and commercial electricity and water consumption account for 18% of Qatar's total emissions (General Secretariat for Development Planning, 2011).

The state of Qatar provides free access to water and utilities for its citizens without incentivizing natural resource conservation or penalizing people for excessive consumption and waste (Luomi, 2014). Qataris are also not fully informed of the environmental costs associated with their lifestyles, and the country's mainstream media does not aid in remedying this problem. State-controlled media focuses more on positive environmental achievements while not revealing to the public the myriad problems resulting from its energy-intensive industrial activities. The various environmental challenges Qatar faces are not unique to this small country and most other countries in the GCC. Yet, the extreme nature of these problems on a per capita basis, coupled with the evident disparity between Qatar's environmental realities on one hand and its political ambitions, religious frame of reference and cultural heritage on the other, make environmentalism in Qatar highly critical and worthy of further investigation.

1.3.4 Desire for Cultural, Religious & Natural Preservation

Through its constitution and policy documents, Qatar clearly establishes itself as an Arab and Islamic nation. Article 1 of the Constitution of Qatar states: “Qatar is an independent sovereign Arab State. Its religion is Islam and Shari’a law shall be a main source of its legislations” (The Permanent Constitution of the State of Qatar, 2004). The state of Qatar also considers the family to be the “main pillar” and “basis” of society (General Secretariat for Development Planning, 2008, p. 1, 19). It defines the Qatari family as one founded upon religion and ethics (The Permanent Constitution of the State of Qatar, 2004). Part of Qatar’s human and social development goals—as outlined in its National Vision 2030—is to further enhance its Arab and Islamic identity and to create an educated population grounded in its cultural heritage, traditions, and ethical and moral values (General Secretariat for Development Planning, 2008).

Regarding environmental protection, Qatar considers it the state’s responsibility to “preserve the environment and its natural balance in order to achieve comprehensive and sustainable development for all generations” (The Permanent Constitution of the State of Qatar, 2004, p. 6). The state’s 2011-2016 National Development Strategy also describes natural conservation as a moral and religious duty in Qatari culture and it considers respecting future generations’ needs as a “basic religious and moral value among Qataris” (General Secretariat for Development Planning, 2011, p. 216, 226). Sheikha Moza bint Nasser Al-Misnid, the former Emir’s wife and the mother of Qatar’s current Emir (Tamim Bin Hamad Al-Thani), also stresses the importance of caring for Qatar’s natural environment. In

Qatar's National Vision 2030, she states that the country's natural heritage was "entrusted to us by God to use with responsibility and respect for the benefit of human kind" (General Secretariat for Development Planning, 2008). Yet, Qatar's rapid industrial development and extractivist industries continue to expand, further jeopardizing the quality of its natural environment and integrity of its ecosystems. This small peninsular state faces exacerbated environmental challenges, including air and water pollution, water scarcity, habitat degradation, biodiversity loss, and vulnerability to sea level rise.

As a coastal peninsula of vast hydrocarbon wealth experiencing numerous environmental vulnerabilities and socio-economic disparities, Qatar appears to face interlinked socio-environmental struggles that speak to a combination of post-colonial, post-industrial, and post-materialist issues found in both the global North and South. This research will inquire into how environmentalists are addressing some of these challenges separately or jointly, and whether or not they are able to influence environmental policies in a monarchy where civil society actors are limited in their freedom to challenge decisions made or endorsed by the state and its corporate allies. The broader impact of this research is to create the intellectual space for indigenous, religious, or hybrid forms of environmentalism to frame ecological narratives and the future of socio-environmental relations in Qatar.

1.4 Research Questions

This study aims to fill part of the literature gaps described in sections 1.1 and 1.2 by examining the various expressions of environmentalism in the state of Qatar.

The main question this research seeks to investigate is: What are the various forms of environmental advocacy in Qatar and to what extent do Islamic teachings and ethics influence environmental thought, practice, and initiatives in Qatar? To investigate this overarching question and map out the field of environmentalism in Qatar, this study posits a series of corollary questions, including: who are the key environmental players and what environmental issues are they prioritizing? What concepts and values frame their environmental agendas and what techniques and strategies do these actors utilize to achieve their objectives? Also, what cultural and Islamic ethical values animate the work of Muslim environmentalists in Qatar? Moreover, to what extent does environmental-decision making remain state-centric and how do power asymmetries between the various state and non-state actors influence the efficacy of environmental activism and advocacy in Qatar? Finally, what challenges and obstacles do environmental activists face in building a strong environmental movement in Qatar? The next section explains the research design and methodology adopted to investigate the main research question and related sub-questions.

1.5 Research Design & Methodology

This study adopts an interpretive, qualitative and inter/transdisciplinary approach using the triangulation technique described by Webb et al. (1966) in which data can be collected from multiple sources and analyzed using different methods or theories for the purpose of confirmation and completeness (Roth & Mehta, 2002; Morse, 1991; Jick, 1983; Fielding & Fielding, 1986). The triangular design is used in

this research to gain a more holistic understanding of environmental discourses and environmentalist perspectives in Qatar. Approaching the research questions from various angles and pooling together a range of perspectives from different state and civil society actors can potentially generate new or alternative explanations (Arskey & Knight, 1999) that capture the social and political complexity of environmentalism in Qatar.

Preliminary data for this study was collected from a range of sources, including state policy documents,¹³ environmental reports, as well as government websites. These materials were used to examine the state's environmental messaging made available to the public and to understand state policies and laws governing the creation and activities of 'non-governmental' groups. Prior to fieldwork, an Internet search was conducted to identify active environmental groups and organizations in Qatar through websites and various social media platforms including Facebook and Instagram. Representatives and leaders of these groups were identified and contacted to introduce this research project and request participation in hour-long, semi-structured interviews.¹⁴ Some scholars conducting research in Oxford between 2016 and 2018 also provided me with some additional contacts engaged in environmental research and advocacy in Qatar. These individuals were also contacted prior to

¹³ These policy documents include the Qatar National Vision 2030, Qatar National Development Strategy 2011-2016, and Qatar National Development Strategy 2018-2022. These can be found, respectively, at:

https://www.psa.gov.qa/en/qnv1/Documents/QNV2030_English_v2.pdf;

https://www.psa.gov.qa/en/knowledge/Documents/Qatar_NDS_reprint_complete_lowres_16May.pdf;

and <https://www.psa.gov.qa/en/knowledge/Documents/NDS2Final.pdf>

¹⁴ Before contacting any potential participants, research ethics approval was obtained from the University of Oxford's Central University Research Ethics Committee (CUREC) upon submitting the research project description, sample interview questions, and sample consent forms. Approval was granted for CUREC 1A research via the Social Sciences & Humanities Interdivisional Research Ethics Committee (Ref no: R62213/RE001).

traveling to Qatar to seek their participation in my research. Academic scholars and researchers working on a range of areas within Islamic studies (including Qur'anic studies, Islamic law and ethics) were also contacted to schedule interviews during my visit to Qatar.

During field research, which was completed in October of 2019 in Doha, Qatar, a total of thirty-one interviews were conducted.¹⁵ A number of these informants¹⁶ were recruited through snowball sampling, which expanded the range of participants to include not only Arab and expatriate academics, Islamic studies scholars, and representatives of environmental groups, but also Arab environmental scientists (including Qatari nationals), young Qatari environmental activists, Gulf studies and public policy scholars, as well as one prominent government representative. Field research also allowed me to acquire educational or promotional literature produced in both Arabic and English by some organizations featured in my research. Fieldwork also granted me the opportunity to partake in some groups' environmental initiatives, including an Ecosystem Based Management focus group held at Qatar University and one of the weekly beach cleanups organized by the Doha Environmental Action Group.

Prior to scheduling interviews, consent was requested from informants for participation in and audio recording of interviews. The latter eventually facilitated exact documentation of interviewees' responses and accurate transcription of interviews. Interviews with consenting participants were conducted using a

¹⁵ Due to time and logistical constraints, this research only examines environmental thought and practice within Doha, which – as the capital and urban center of Qatar – contains the most active academics, scholars and environmentalists whom I could connect with prior to and during my field research.

¹⁶ The term 'informant' is used throughout this research in an ethnographic/anthropological sense to refer to interviewees who provided me with information about socio-environmental realities in Qatar.

constructivist approach, which perceives the interview as a meaning-making experience in which knowledge is produced through collaboration between the interviewer and interviewee (Hiller & DiLuzio, 2004). Interviews explored a range of topics, including Islamic environmental thought and conceptions of the natural world; cultural and religious environmental values; local and regional environmental vulnerabilities; environmental programming, initiatives, and strategies; social and political challenges for individual environmentalists and environmental groups; personal motivations for engaging in environmental advocacy; and effective approaches to increasing environmental consciousness, mobilizing the public for environmental causes, and advocating for more eco-friendly policies and practices.

Following field research, interviews were transcribed and coded to categorize informants' responses by topic or subject. This data was initially analyzed to identify emergent themes, patterns, and convergent or divergent perspectives. In synthesizing and interpreting the data, critical discourse analysis was used as a discursive method to examine various state and non-state environmental discourses. Kress and Van Leeuwen (2001) describe discourses as "socially constructed knowledges of (some aspect of) reality... developed in special social contexts, and in ways that are appropriate to the interests of social actors in these contexts" (Reisigl, 2013, p. 80). Critical discourse analysis utilizes an analytic process to deconstruct and critique the use of language within its social context. Analysts use this method to assess social structures and discursive strategies engaged in (re)producing power in both subtle and obvious ways (Miles, 2010). Miles (2010) argues that written and verbal forms of communication occur within power-laden social contexts under structured rules, and

a lack of critical textual analysis can result in oppressive discourse practices (e.g., marginalization and oppression) becoming accepted norms. As such, critical discourse analysis can be used to shed light on discursive practices that reinforce power asymmetries and perpetuate inequalities. In this study, critical discourse analysis is used to examine which actors have the authority to make environmental decisions and speak on environmental realities and vulnerabilities in Qatar. This method is also used to examine how particular individuals and groups remain marginalized, disempowered, and effectively voiceless within Qatar's broader social, environmental and political context. Moreover, critical discourse analysis is used to assess the efficacy of Islamic ethical discourses in shaping environmental discourses and practices in Qatar.

As an overarching analytical framework, environmental governance is used to map out the different constellations of prominent actors influencing socio-environmental relations in Qatar. Nature-society geographers, sociologists, and development scholars have utilized this concept of environmental governance to problematize state-centric notions of environmental regulation and administrative power, and to describe a shift in the manners, organizations and spatial scales through which environmental decisions are made (Bridge & Perreault, 2009). Environmental governance provides a tool to examine these complex and multi-scalar arrangements, and is utilized in this research to investigate uneven power relations and critically assess the extent to which environmental governance and decision-making has become decentralized in Qatar.

1.6 Significance

This study presents novel research aiming to bridge the gap between Islamic ethical ideals and environmental practice within the context of an Arab Muslim country. It also seeks to explore uncharted territory by examining environmental attitudes, beliefs, and challenges in Qatar using multiple qualitative methods combining critical discourse analysis of data gleaned from direct communication (in the form of semi-structured interviews) with numerous stakeholders and environmental actors along with supplementary textual analysis of publications from state and non-state actors. This research pools together a range of diverse perspectives from academics and activists; social scientists and environmental scientists; religious scholars and leaders; as well as practitioners and policy experts. It also reveals how some government agencies, environmental groups and informants collaborate with one another in their environmental campaigns and research, while elucidating how many individual and institutional actors seem to work in isolation or appear unaware of each others' respective efforts.

In examining environmentalism in Qatar, this study adopts a unique approach affirming and revealing the multiple ways in which environmental advocacy and calls for environmental justice are intimately connected with struggles for social justice and equity in Arab Gulf countries, particularly Qatar. These social and environmental links become evident particularly in Chapters 4 and 7 when discussing disparities between low-income migrant workers and Qatari nationals (and some high-skilled expatriates) in numerous areas, including wealth, health, access to nutritious food,

accommodations, living conditions, lifestyle, freedom of mobility, leisure opportunities, and access to green spaces.

A number of informants revealed many socio-environmental realities in Qatar anonymously during my interviews, which I have incorporated into this research without revealing their names in order to protect their identities. Some of these informants' choice of anonymity and trepidation in speaking about some socio-environmental realities reveals the extent to which civil society actors must prioritize self-preservation and balance between advocating for certain social and environmental causes while simultaneously retaining the country's positive public image. One of the main benefits of this research is carving out an intellectual space to reveal some of these actors' voices and perspectives, which may have never seen the light of day in a state controlling the civic engagement of its people and limiting both citizens' and non-citizens' engagement in any form of activism that may jeopardize the state's regional and global image, or be deemed political and, therefore, illegal.

1.7 Thesis Overview

Following this introductory chapter, the thesis is divided into seven main chapters. Chapters two and three present a conceptual framework for this study through a literature review examining pertinent concepts, including environmental governance (2.1) and contemporary environmentalism (2.2). These sections shed light on prevailing forms of neoliberal environmental governance and market environmentalism while presenting various classifications of contemporary environmentalism. Chapter 3 presents an overview of religious environmentalism (3.1) and Islamic environmentalism with a focus on Islamic eco-theological concepts

(3.2), ethical principles and directives (3.3), as well as different forms and manifestations of contemporary Islamic environmentalism (3.4).

Chapter four and five examine environmental discourses of non-state actors in Qatar. Chapter 4 particularly highlights the social, cultural, and religious challenges while chapter 5 focuses on political challenges environmental advocates identify in the struggle to create a more just and environmentally sustainable future for Qatar. The social, cultural, and religious challenges include: a transformation in socio-environmental relations (4.1), disparity between religious beliefs and practice (4.2), as well as persistent social and spatial divisions (4.3). The political challenges investigated in chapter 5 include: lack of access to environmental data (5.1), absence of a legal framework for NGOs (5.2), and the hegemony of the petroleum industry (5.3). In combination, these two chapters tackle particular social realities and environmental behaviors deemed as both incommensurate to advancing socio-environmental relations and achieving socially just and environmentally sustainable development in Qatar.

Chapter six and seven examine Islamic environmentalism in Qatar. Chapter six investigates Islamic environmental thought through the lens of Muslim scholars and ethicists conducting research in Qatar. This chapter covers a range of subjects, including: methodological and epistemological challenges (6.1); contemporary debates in Islamic environmental discourses (6.2); obstacles to bridging theory with practice in Qatar (6.3); and the role of imams and religious scholars in contributing to the advancement of socio-environmental relations in Qatar (6.4). Chapter seven provides a case study of Islamic environmental practice featuring the Qur'anic

Botanic Garden as one of the clearest – albeit imperfect – examples of Islamic environmentalism in the country. This chapter provides an introduction to the Qur’anic Botanic Garden (7.1) and presents its vision, mission, objectives, and strategies (7.2). It also investigates how religious concepts and values influence the QBG’s overall ethos and programming (7.3). Finally, this chapter critically assesses this institution’s achievements and priorities in relation to the most pressing environmental needs of the country (7.4).

The eighth chapter concludes with a summary of the study’s findings (8.1), including an assessment of the realities of state and non-state environmentalism. It also presents broader implications and offers recommendations based on these findings (8.2). This chapter concludes by providing opportunities for future research (8.3) and describes the value of this research for environmental advocacy in Qatar and the broader region.

CHAPTER 2: ENVIRONMENTAL GOVERNANCE & ENVIRONMENTALISM

This chapter and the following chapter provide a conceptual framework for examining environmentalism in Qatar. This framework encompasses three overarching areas: environmental governance (2.1), contemporary environmentalism (2.2), and Islam and environmentalism (chapter 3). The concept of environmental governance is used in this research to assess power asymmetries between state and non-state environmental actors in Qatar (see chapter 5 and chapter 8). The concept of environmentalism is used to investigate state and non-state environmentalist priorities and the extent to which environmental actors exhibit implicit, explicit, and/or politicized levels of engagement (see chapters 4, 5, 7, and 8). Market environmentalism in particular is highlighted in this chapter as it represents the state's dominant approach to environmentalism (see sections 5.3 and 8.1.1).

The first main section of this chapter explains the concept of governance in juxtaposition to government and describes how power relations are restructured under governance (2.1.1). It also presents environmental governance as an analytical framework to describe shifts in land use, natural resource management, and—ultimately—power dynamics (2.1.2). Finally, this section describes important features of neoliberalism (2.1.3) and explains its role in contemporary environmental governance (2.1.4).

The next main section (2.2) defines environmentalism (2.2.1), presents various classifications of contemporary environmentalism (2.2.2), and highlights market environmentalism (2.2.3) as one of two contextually relevant forms of

environmentalism (in addition to religious environmentalism [3.1]) absent in contemporary classifications.

2.1 Environmental Governance

2.1.1 Governance & Power

Governance can broadly be defined as the purposeful effort of social, political, and administrative actors to “guide, steer, control or manage (sectors or facets of) societies” (Kooiman, 1993, p. 2). This definition aligns with certain approaches in international relations and development studies that view governance as an intentional and deliberate process to achieve a certain outcome (Bridge & Perreault, 2009). While government relates to the governing authority of state institutions (e.g., laws, parliaments, legislatures, executives, and judiciaries), governance is about the social relationships between various state and non-state actors that directly or indirectly influence planning, decision-making, and problem-solving (Liverman, 2004; Smith, 2017). In contradistinction to government, which is perceived as a ‘monocentric’ approach to processes of governing, governance adopts ‘polycentric’ approaches with a focus on the multiplicity of governing agents (Van Vliet, 1993). According to the Commission on Global Governance, governance is the “sum of the many ways individuals and institutions, public and private, manage their public affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action may be taken” (Commission, 1995 as cited in Bridge & Perreault, 2009, p. 484). Governance research examines not only the cooperative potential of governing actors, but also

the politics and power relations between different actors that produce uncooperative behavior or hegemonic discourses, policies, and practice.

Geographers and social scientists have employed the term governance to capture the shift away from state-centric forms of administrative power and social or economic regulation (Pierre, 2000; Himley, 2008; Bridge & Perreault, 2009). Described as a 'destatization of the political system' (Jessop, 2002 as cited in Himley, 2008), this shift away from government reflects a transfer of political authority to a range of actors beyond the national state, including private firms, international institutions, transnational corporations (TNCs), non-governmental organizations (NGOs), and social movements (Himley, 2008; Bridge & Perreault, 2009). The growing role of non-state actors operating at varying sites and spatial scales arguably blurs the division between public and private, and restructures the norms and expectations distinguishing these arenas from one another (Jessop, 2002; Bridge & Perreault, 2009). The concept of governance highlights this restructuring of power relations through which non-state actors are integrated into a hybridized, politically decentralized network of state and non-state organizations and institutions governing social and political affairs (Himley, 2008; Painter, 2000).

Arguments in favor of increasing the range of non-state actors in governance mechanisms and decision-making (Bäckstrand, 2006; Biermann et al., 2010) have been critiqued for disregarding power dynamics and inequalities amongst non-state actors (Bickerstaff & Walker, 2005; Duffy, 2013). One area open to interrogation, for example, is the growing ability of certain actors (e.g., financial institutions, NGOs, and corporations) to form alliances with states that co-opt or silence dissenting

voices in order to advance their own political and economic interests (Bickerstaff & Walker, 2005; Duffy, 2013). Critics of participatory discourses note that increased participation does not necessarily create democratic conditions and can often reinforce patterns of marginalization and social exclusion (Bickerstaff & Walker, 2005; Duffy, 2013; Wilson, 1999).

In this study, the concept of governance provides a framework for not only identifying powerful state actors in Qatar beyond the royal family, but also assessing the extent to which decision-making authority remains concentrated within the hands of particular state actors and their transnational corporate allies in the petroleum industry. This concept is also used to investigate tools and tactics the state employs to reduce the social and political influence of certain national and expatriate non-state actors. For a detailed discussion and analysis of these power relations between state and non-state actors in Qatar, see sections 5.1, 5.2, and 8.1.3.

2.1.2 Environmental Governance

Environmental governance foregrounds the social and political dimensions of environmental problems and tackles some of the same traditional interests of political ecology, especially the concern with institutions that shape and influence access to and control of resources (Himley, 2008; Watts & Peet, 2004). Building on institutional theories of political economy and a range of social science research on global and socio-political governance, environmental governance has gained traction among nature-society geographers, social scientists, and development scholars as an explanatory concept and analytical framework to address a significant shift in social actors, organizational structures, institutional

arrangements, spatial scales and decision-making processes related to the use of nature and the production and consumption of resources (Bridge & Perreault, 2009; Himley, 2008).

Research on environmental governance in Latin America, for example, not only examines the procedures and practices influencing access to and control over natural resources, but also the processes creating and challenging certain images and perceptions of nature (Castro et al., 2016). Distinctions are drawn, for example, between commodifying and extractivist images from national governments and private companies; symbolic images of nature as a source of livelihood and sustenance from indigenous and peasant communities; and environmentalist images of nature as biophysical entities with ecological functions, including carbon sinks and biodiversity repositories (Castro et al., 2016). These varying images reflect a struggle over the meaning of nature that produces conflicting perceptions of socio-environmental relations and divergent approaches to resolving environmental problems (Castro et al., 2016).

Geographers' evaluation of changing actors, scales and decision-making in resource regulation and environmental management is sparked by the proliferation and increased involvement of non-state actors (i.e., NGOs, corporations, consumers, and social movements) as well as institutions (e.g., international financial institutions, global climate accords, and trade agreements) in governing socio-environmental relations (Himley, 2008; Liverman, 2004). Indigenous communities in formerly colonized regions and historically marginalized groups are examples of non-state actors that have challenged state authority (as in Ecuador, Canada, the U.S.

and Australia) and still struggle to gain control over decisions concerning resource extraction and development in their territories (Himley, 2008; Doherty & Doyle, 2007). Political ecologists have demonstrated how imperialist and capitalist development processes have excluded traditional resource users from decision-making processes, deprived them of resource and property rights, and eliminated their resource management institutions (Himley, 2008; Jacoby, 2014; Neumann, 1998, 2004). These communities, along with their allies in academia and civil society, continue to oppose state dominance by critiquing economic and instrumentalist approaches to resource management while advocating for the integration of indigenous and traditional knowledge into systems of resource management (Davis, 2005; Himley, 2008; Woldeyes & Belachew, 2021).

The tensions between epistemic communities and the power asymmetries between particular state and non-state actors raise critical questions regarding who holds the political authority to steer environmental decisions (and who does not), where decisions are made, who and what is governed, and the intended aims of those who govern (Bridge & Perreault, 2009; Duffy, 2013). Examining the politics of environmental governance helps reveal the 'hierarchical configuration of social power' (Overbeek, 2005 as cited in Duffy, 2013, p. 224) that determines not only how natural environments and resources are managed and regulated, but also the social order established and reinforced through environmental decisions (Bridge and Perreault, 2009).

In this research, environmental governance is used to examine the socio-environmental consequences and implications of petroleum companies' thorough

integration into the apparatuses of government and civil society in Qatar (see section 5.3). This concept is also used to reveal how the state maintains an extractivist culture to further entrench and expand extractivist policies and actions (see section 5.3). This extractivist culture can be juxtaposed to environmentalists' prioritization of protecting ecosystems and habitats while also protecting people from particular environmental threats, including air pollution, rising temperatures, and sea level rise (see section 5.1). In addition, this study uses the concept of environmental governance to unveil disparate approaches among indigenous environmentalists and expatriates to resisting the hegemony of the petroleum industry and economic dependence on fossil fuels. This disparity reflects in some scientists and activists circumventing government-controlled agencies, media, and education systems (due to their entrenchment in capitalist/extractivist logics and the futility of promoting decarbonization) while others continue to place their faith in collaboration with and lobbying government officials to reform economic and environmental policies (see sections 5.1, 5.2, and 8.2).

2.1.3 Defining Neoliberalism

With the rise of neoliberal globalization and neoliberal hegemony (Himley, 2008; Peck et al., 2010), much of the emergent work on environmental governance focuses on how this domain of governance has become and continues to be increasingly neoliberalized (McCarthy, 2012; Himley, 2008; Bakker, 2007; Perreault, 2005; Bridge, 2004; Liverman, 2004). This neoliberalization occurs through a radical reconfiguration and restructuring of institutional and organizational arrangements related to the governance of natural resources and socio-

environmental relations in line with neoliberal logics and paradigms (Himley, 2008; Apostolopoulou et al., 2021). Identifying and analyzing neoliberal modes of environmental governance poses a formidable challenge when there is no scholarly consensus on the very definition of neoliberalism.

Many scholars have attempted to define the concept of neoliberalism more precisely and elucidate its origins as well as its different forms and manifestations (Steger & Roy, 2010; Cipler & Roberts, 2017; Castree, 2008a; Peck & Tickell, 2002; Mansfield, 2004). Built on the classical liberal vision for a self-regulating market, neoliberalism gained prominence in the 1980s as a reaction to the formerly dominant economic paradigm Keynesianism (Steger & Roy, 2010). Keynesianism is an economic doctrine based on the thought of British economist John Maynard Keynes (1883-1946). According to Keynesian economics, a lack of state intervention can lead to markets producing inefficient outcomes such as low economic growth and unemployment. Keynes supported government spending on a large scale during economic crises in order to create new jobs and restore full employment. Keynesianism supported the market principle but rejected the 'free market' and even advocated state ownership of major national enterprises such as railroad or energy-producing companies (See De Angelis, 2009; Barber, 2014; Steger & Roy, 2021).

Neoliberalism comes in various strands and has been defined in multiple ways, including as an economic doctrine with an associated set of market-liberal policies (McCarthy, 2012). Another view of neoliberalism describes it as a class project to restore financial control and accumulation rates specifically to capitalists

(McCarthy, 2012). A third perspective on neoliberalism defines it as an economic paradigm or ideology that drives or justifies the latter two political-economic projects (McCarthy, 2012; Steger & Roy, 2010). This ideology arguably legitimizes and supports particular power structures in which global elites (e.g., executives of large transnational corporations, bankers, and politicians) advance specific political and economic interests in line with neoliberal ideals (Steger & Roy, 2010).

A fourth understanding of neoliberalism draws on the French social theorist Michel Foucault's notion of 'governmentalities', which focuses on the processes through which people, things, and organizations are governed in alignment with a certain set of ideas in order to produce or maintain existing power dynamics and a particular social order (Bridge & Perreault, 2009; Steger & Roy, 2010). Although there is much debate on Foucault's conceptualization of neoliberal governmentality, a common 'Foucauldian' perspective on neoliberalism defines it mainly by its core commitment to making economic growth its primary social policy and the "key criterion of state legitimacy" (McCarthy, 2012, p. 184). Based on this view, neoliberal governmentality bolsters economic aspirations above the social and political spheres of life, and subjects individuals and institutions in these arenas to market-based logics and economic criteria (McCarthy, 2012). As such, some scholars and sociologists describe neoliberalism as a politically motivated "intensification of market rule" (Brenner et al., 2010, p. 184 as cited in Cipler and Roberts, 2017) within the public sphere and critique it as a more deliberate and ambitious program to dismantle "collective structures which may impede the pure market logic" (Bourdieu 1998 as cited in Gareau 2013, p. 42). This political program paves the

way for the hegemony of the 'nebuleuse', a conglomerate of ideas, institutions, and organizations that create suitable conditions for neoliberal capitalist expansion (Cox, 1996, as cited in Duffy, 2013, p. 224; Cammack, 2005; Murphy, 2000).

Scholars defining neoliberalism note that neoliberal modes of governance operate primarily on entrepreneurial values (e.g., self-interest, competitiveness, and decentralization) while employing certain mechanisms and techniques of rule that find their origins in the fields of business and commerce (Steger & Roy, 2010). These mechanisms include strategic plans and risk-management schemes designed to increase financial surplus, quantitative targets, and efficiency calculations such as cost-benefit analyses (Steger & Roy, 2010). Rather than focusing on public service, strengthening civil society or achieving social justice, neoliberal modes of governance arguably "encourage the transformation of bureaucratic mentalities into entrepreneurial identities" in which government workers view themselves "no longer as public servants and guardians of a qualitatively defined 'public good' but as self-interested actors responsible to the market and contributing to the monetary success of slimmed-down state 'enterprises'" (Steger & Roy, 2010, p. 12).

Although neoliberalism is quite heterogeneous, nature-society geographers have attempted to distill its central elements from its various definitions. These elements include: faith in the ability of markets to self-regulate when economic crises occur; belief in the broader benefits of individual economic actors acting in self-interested ways; commodification of a broadening range of goods and services formerly viewed as collective or public goods and commons; rejection of state regulations that govern financial capital and economic activity; and unification of

regional and national economies into one interconnected global economy (McCarthy, 2012; Heynen et al., 2007; Steger & Roy, 2010). A constant theme in the various definitions of neoliberalism is also the primary goal of increasing economic growth rates and reconfiguring other social and political values and arenas of life to align with market logics and objectives (McCarthy, 2012).

2.1.4 Neoliberal Environmental Governance

Scholarship on neoliberal environmental governance emphasizes both the variability of the biophysical world and the heterogeneity of neoliberalism, which together produce a plurality of neoliberalisms and neoliberalization processes that vary in terms of geography and temporal and spatial scales (McCarthy, 2012; Ciplek & Roberts, 2017; Peck & Tickell, 2002; Brenner et al., 2010; Apostolopoulou et al., 2021). This plurality also stems from the fact that neoliberal projects—however they are defined—interact with pre-existing social structures and dynamics also undergoing simultaneous development, thereby producing more variegated and hybridized forms of neoliberalism (McCarthy, 2012). Despite considerable variability in the manifestations of neoliberalism, one of the core issues nature-society geographers have identified and analyzed in the neoliberalization of environmental governance is the extension of market-based logics, mechanisms, and policies to natural resource management (Liverman, 2004).

The growing trend toward commodifying nature and folding ecosystem ‘services’ into the market has arguably transformed socio-environmental relations, political economies, and vast landscapes throughout the world (Liverman, 2004; Robertson, 2007). This commodification is evident in how prices are assigned to

countless environmental activities and ecosystem processes, including bioprospecting, carbon sequestration, reforestation, and ecotourism (Liverman, 2004; Rojas & Aylward, 2003). Market-based solutions to environmental problems (i.e., carbon trading to curb greenhouse gas emissions) have also gained prominence because of their 'ideological fit with neoliberal logic' as well as their benefit to dominant financial actors and elites (Newell & Patterson, 2009 as cited in Ciplest & Roberts, 2017, p. 150). In regions like Latin America, neoliberals posit that trading natural resources (i.e., land, air, water, fisheries, and forests) in a free market and assigning individual titles and high prices to depleting or scarce resources will also promote efficient and sustainable management of natural resources (Liverman, 2004; Roberts & Thanos, 2003).

Increasing neoliberal privatization of commons resources also demonstrates the hegemony of the market and private sector interests in influencing environmental decision-making and reregulating access to natural resources (Ciplest & Roberts, 2017; Apostolopoulou et al., 2021). This reregulation arguably expands the arenas available for increased investment and accumulation for particular actors while restricting access, production, and consumption of natural resources for others (Harvey, 2003; Himley, 2008; Hougaard & Vélez-Torres, 2020). Water is a prime example of a natural resource that has become re-conceptualized as a commodity rather than a public good to which individual citizens formerly had rights (Bridge & Perreault, 2009; Swyngedouw, 2005). Based on this neoliberal representation, citizens – reduced to 'consumers' – can only gain access to scarce commodities through market-based mechanisms (Bridge & Perreault, 2009).

Political ecologists and nature-society geographers note that such commodification and privatization of natural resources and drinking water systems exemplifies what Harvey called “accumulation by dispossession”, or the alignment of states with capital to pursue greater accumulation and thereby destroy greater swaths of nature and the global environmental commons (Harvey, 2004; Liverman, 2004; Swyngedouw, 2005; Bridge & Perreault, 2009).

Although environmental governance has always taken into account economic considerations, scholars argue that market-based principles in current systems of governance have overshadowed or even displaced precautionary values and considerations related to equity and justice (Ciplet & Roberts, 2017; Bernstein, 2002). The extension of market principles and private sector norms (e.g., competition, self-interest, and efficiency indicators) into environmental governance is often portrayed as a common sense or value-neutral application, yet scholars of neoliberal governance argue that such an approach seeks to erroneously depict markets and environmental problems as apolitical realms free of political dispute (Ciplet & Roberts, 2017; Jaeger, 2007; Duffy, 2013).

Many geographers have sought to demonstrate how neoliberal reforms restructure socio-environmental relations and the broader world order in ways that increase and deepen global inequalities, particularly between the global North and South (Duffy, 2013; Goldman, 2008; Steger & Roy, 2010). Analysis of North-South dynamics in the Convention on the International Trade in Endangered Species (CITES), for example, reveals how alliances between dominant states and powerful Northern-based NGOs with ‘expert knowledge’ effectively shape wildlife policy and

make Southern-based dissenting voices invisible (Duffy, 2013). The World Bank's codification of 'green' knowledge into rules, regulations, and policies that infiltrate countries in the global South is another example of how dominant economic institutions act as key knowledge brokers that propagate neoliberal agendas in developing countries and thereby maintain a particular social and economic order (Himley, 2008; Goldman, 2008; Steger & Roy, 2010).

Within the context of environmental governance, the challenge for geographers is working within neoliberal systems to promote equality, greater rights for the marginalized and dispossessed, fair prices and markets, or resisting and overthrowing neoliberal systems of governance that commodify nature and deepen social inequalities (McCarthy, 2012; Himley, 2008; Liverman, 2004; Hougaard & Vélez-Torres, 2020). Neoliberalism has been critiqued for a number of reasons, including: its undermining of public goods and collective rights while exacerbating economic and environmental inequalities; market actors' apparent systematic undervaluation of environmental 'goods and services'; the lack of incentives for powerful actors who create new markets to put a price on or value numerous aspects of environmental degradation and transformation; and the poor alignment of private property rights and regimes with many biophysical systems (McCarthy, 2012).

Although neoliberal environmental governance has produced some positive outcomes (e.g., affording social movements the opportunity to organize and contest unjust policies and laws), ample research has shown that increasing non-state and civil society actors in environmental governance does not always lead to greater

inclusion, democracy, or equal access to and distribution of resources (McCarthy, 2012; Bickerstaff & Walker, 2005; Duffy, 2013; Wilson, 1999). There is a general understanding that environmental governance should focus more on “equity, democracy, collective goods, uncertainty and the risk of catastrophic harms, and the wellbeing of future generations and non-human species” as opposed to its current aims of securing property, access to and control of resources, and renewed capital accumulation for a small number of powerful and privileged global elites (McCarthy, 2012, p. 193; Hougaard & Vélez-Torres, 2020).

Some scholars call for the ‘de-neoliberalization’ of environmental governance and argue for the articulation of clear, viable alternatives to replace the hegemonic ideology that continues to shape social values, policies, institutions, cultures, and many aspects of social relations (Perreault, 2005; McCarthy, 2012). Part of the struggle to de-neoliberalize environmental governance is producing a more detailed and concrete depiction of the different forms of neoliberal governance while identifying the specific aspects of environmental governance (e.g., reliance on market-based mechanisms, private-public partnerships, etc.) that are neoliberalized (McCarthy, 2012; Castree, 2008a, 2008b; Bakker, 2009). Analytical work that aims to reveal the various manifestations of neoliberalism along with clear delineations of what has undergone neoliberal reform within the domain of environmental governance helps provide a more accurate and nuanced portrayal of the political and spatial terrain that needs to be traversed to create more equitable and less economic modes of governance.

In the Qatari context, some aspects of neoliberal environmental governance (e.g., decentralization [beyond state agencies and transnational corporate allies]) may not fully apply. Qatar has also not benefited from some of the consequences of neoliberal environmental governance, including social movements gaining the opportunity to organize and contest unjust policies. Other aspects of neoliberal environmental governance, however, appear to influence Qatar's environmental discourses, policies and praxis. This influence reflects in many areas, including the state's relentless prioritization of economic growth despite social and ecological consequences; reliance on market-based principles, strategies, and solutions to resolve environmental problems; commodification of carbon emissions; increased privatization of water and energy production; depoliticization of climate discourses; restructuring of government agencies and civil society to maintain the extractivist status quo; and structural opposition and marginalization of politicized discourses linking environmental decisions and policies with socio-environmental injustices. Due to similarities between the logic underpinning neoliberal environmental governance and market environmentalism (see section 2.2.3), the ways in which these two dominant approaches apply to state environmentalism in Qatar are addressed in the same section (8.1.1.2). For details on how petroleum interests dominate government agencies and civil society in line with extractivist and neoliberal logics and policies, see section 5.3.

2.2 Contemporary Environmentalism

2.2.1 What is Environmentalism?

Scholars have dedicated numerous studies to the subject of environmentalism over the last fifty years. Environmental historians have attempted to trace its origins and evolution throughout history while elucidating the oft-divergent ecological ideas and values appearing over the last several centuries which continue to influence environmental attitudes, governance, and modern environmentalist trends today. Historians, anthropologists, sociologists, political scientists, and scholars of the environmental humanities have also attempted to define the meaning of environmentalism and to classify its various strains or waves while demonstrating the cultural, religious, or political significance of environmental expressions for vastly diverse communities and regions throughout the world. Although more definitions of environmentalism may exist now than the number of issues environmentalists address, a noteworthy distinction is made between this term's historical and contemporary meanings.

In the early 20th century, environmentalism referred to the belief that the social, cultural or geographic environment—as opposed to genetics or heredity—played a major role in determining the structure and behavior of animals and people (Worster, 1994; Petulla, 1980). This understanding waned in the middle of the 20th century as the debate between geographic and genetic determinism subsided (Worster, 1994). In its present-day usage, the term 'environment' describes the system comprised of all living beings along with their habitats and surrounding influences, including air, water, soil, and climate (Haq & Paul, 2012). As with other

phrases ending with the suffix *ism*, environmentalism implies a doctrine, worldview (Killingsworth & Palmer, 1991; Stern, 2000) or set of beliefs, principles, norms, or ethics (Robinson et al., 2019; Gade, 2019) that shape people's attitudes towards the environment and articulate a theorized ideal for how people ought to build a relationship with the environment. In challenging simplistic or reductionist approaches to environmentalism, O'Riordan (1980, ix as cited in Milton, 1993) argues:

Environmentalism is as much a state of being as a mode of conduct or a set of policies. Certainly it can no longer be identified simply with the desire to protect ecosystems or conserve resources – these are merely superficial manifestations of much more deeply-rooted values. At its heart environmentalism preaches a philosophy of human conduct that many still find difficult to understand, and those who are aware seemingly find unattainable.

Some political scientists have described environmentalism as an ideology built on radical or conservative ideas, for example, while other sociologists have analyzed it as an interest group or social movement with activists and non-activists supporting the movement (Milton, 1993; Gottlieb, 1993; Stern, 2000). Many political ecologists and environmental historians choose to focus on the political dimensions of environmental issues. Environmentalism for them is not perceived as limited to attitudes about nature; it also encompasses questions and debates regarding “access to resources, division of responsibilities, and building support for one's position” (Bocking, 2009, p. 619). Some anthropologists and scholars in the environmental humanities have viewed environmentalism as a social commitment (Milton, 1993; Gade, 2019) in which responsibilities toward the environment are defined culturally and communicated through a discourse.

A group of environmental historians have sought to distinguish contemporary environmentalism from literary or scientific appreciation for nature and from personal or private strategies to connect with nature.¹⁷ These scholars view environmentalism in the modern era as a social program marked by a clear public engagement and plan of action or strategy for political reform to protest the degradation of habitats, lobby legislators, influence public policy, and/or promote less harmful technologies and lifestyles (Guha, 2014; Worster, 1994). Based on these perspectives, environmentalism reflects an underlying moral sentiment of concern (Worster, 1994; Gade, 2019) for the environment that manifests in public forms of action against harmful anthropogenic activities causing environmental pollution, degradation, and/or destruction. Other scholars do not limit environmentalism to public engagement, expression, or active involvement in environmental organizations. They view certain individual behaviors (e.g., purchasing and using personal/household products or services that reduce environmental impact) as a form of environmentalism manifesting in the private sphere (Stern, 2000). This definition falls in line with the view of environmentalism as a way of life or state of mind (Bocking, 2009) that influences one's day-to-day actions.

In its public manifestation, environmentalism ushered by the modern era has been characterized by a sense of urgency due to perceiving the environment in a state of 'crisis' (Worster, 1994; Guha, 2014; Gade, 2019). This view stems in part from the production and broad dissemination of scientific literature and

¹⁷ Strategies for connecting with nature in a private capacity were documented and exhibited by prominent 20th century philosophers and naturalists like Henry David Thoreau and John Muir.

publications (e.g., Rachel Carson's *Silent Spring*) revealing the adverse effects of modern technologies on the environment and warning of the imminent destruction of entire ecosystems and human life itself (Worster, 1994). Increased media coverage of environmental degradation and the visibility of pollution events (e.g., oil spills) have also made environmental issues part of the mainstream public discourse.

However environmentalism is understood (i.e., as a doctrine, ideology, movement, or social commitment), its various conceptualizations have undoubtedly shaped how scholars examine its influence on individuals, organizations, corporations, and governments throughout the world. This study considers environmentalism a public expression of ecological or environmental ideas, beliefs, and values, combined with individual or collective (calls to) action intended to promote particular ethical orientations towards the natural environment and any or all of its elements. Some scholars have chosen to demonstrate the multiplicity of environmental expressions or commitments in different regions of the world with the plural 'environmentalisms' (e.g., Doherty & Doyle, 2006; Knutson & Dolan, 2016; Gade, 2019). This study adopts the singular form as an overarching term for ideologically motivated environmental advocacy in Qatar while acknowledging the inherent diversity in origins, ideas, values, priorities and tactics influencing the various manifestations of contemporary environmentalism.

2.2.2 Classifications of Modern Environmentalism

Although many philosophers, historians and naturalists have expressed concern for people's relationship with the natural world over the past several

centuries at the least, environmentalism has experienced unprecedented growth, professionalization, and diversification on a global scale since the 1960s. Studies of modern environmentalism have attempted to categorize and classify the various types and strands of environmentalism based on ecological ideas, cultural values, and historical contexts. Some studies adopt a chronological or sequential approach to studying the global history of environmentalism, while others focus on the evolution of environmental thought and activism within a specific region or country (e.g., America, Canada, India, or Sweden). Some scholars choose to classify environmentalism using global North and South distinctions, while others categorize environmentalist priorities and values based on similar collective histories (i.e., imperial invasions and colonization). Although none of these approaches can capture entirely the complex diversity of environmentalism – and may inadvertently or deliberately omit certain philosophical traditions, countries or regions from their categorizations – they succeed in mapping out constellations of environmental ideas and strategies that are connected in varying degrees by shared values, concerns, and/or experiences. These environmentalist trends provide a broader historical and ideational framework for understanding and categorizing the different priorities of environmental groups and organizations in Qatar. For a discussion on how different socio-environmental struggles and forms of environmentalism in Qatar overlap with some of the trends and priorities described below, see sections 4.3 and 8.1.1.1.

2.2.2.1 The Cult of Wilderness

One study identifies three main clusters within the environmental movement. These clusters are termed ‘cult of wilderness’, ‘gospel of eco-efficiency’, and the ‘environmentalism of the poor’ (Martinez-Alier, 2002). Although these currents are described as ‘channels of a single river’ or ‘varieties of the same crop’, they differ in their relation to various environmental sciences as well as their relationship to religion, state power, and business interests (Martinez-Alier, 2002, p. 1). The ‘cult of wilderness’ focuses on the preservation of nature and the wild in their most pristine forms, without critiquing industrial development, urbanization or economic growth (Martinez-Alier, 2002). This current appeals to an aesthetic appreciation and love for nature, with its gushing rivers and old-growth forests, as well as to religious and ethical values (Martinez-Alier, 2002). It also appeals to the science of ecology, and finds support specifically in the science of conservation biology, which developed in the 1960s (Martinez-Alier, 2002).

Environmentalists who fall in the ‘cult of wilderness’ cluster tend to support policies seeking to create nature reserves or protect national parks from human intervention (Martinez-Alier, 2002). Established environmental organizations such as the WWF,¹⁸ the International Union for the Conservation of Nature (IUCN), and Nature Conservancy adopt beliefs and values in line with this current of environmentalism, and seek to promote their ideals on nature conservation, restoration, and biodiversity protection throughout the world (Martinez-Alier,

¹⁸ The original name of this organization is the World Wildlife Fund. This name was changed to World Wide Fund for Nature in 1985, but the original name was retained by the U.S. and Canada-based organizations.

2002). Although this current in the environmental movement has made great strides in protecting natural landscapes, it has also been criticized for actively displacing human communities in western regions to create wilderness areas and national parks, and for reinforcing a conceptual and physical separation between people and nature (Adams & Mulligan, 2003; Duffy, 2013; Haq & Paul, 2012).

Historically, the 'cult of wilderness' is represented by prominent naturalists, conservationists, and environmental philosophers such as John Muir (d. 1914) and Aldo Leopold (d. 1948). John Muir founded the Sierra Club in 1892 and played an instrumental role in preserving Yosemite National Park (Killingsworth & Palmer, 1991). Leopold, who was an academic trained in forestry, was most known for his book *A Sand County Almanac* (1949), which states: "a thing is right when it tends to preserve the integrity, beauty, and stability of the biotic community. It is wrong when it tends otherwise" (p. 189). His land ethic promoted rights for nature (Petulla, 1980) as well as harmony between people, water, soil, plants and animals as elements of the same community (Haq & Paul, 2012). In his book *Round River* (1953), Leopold (1953 as cited in Worster, 1994, p. 288) writes:

Harmony with land is like harmony with a friend; you cannot cherish his right hand and chop off his left. That is to say, you cannot love game and hate predators; you cannot conserve the waters and waste the ranges; you cannot build the forest and mine the farm. The land is one organism.

Since the 1970s, the 'cult of wilderness' has been represented by the environmentalist strand of 'deep ecology', which adopts a biocentric attitude towards nature as opposed to an arguably 'shallow' anthropocentric view

(Martinez-Alier, 2002). The deep ecology movement has been critiqued for prioritizing nature conservation over the rights and needs of people (Guha, 1989).

2.2.2.2 The Gospel of Eco-Efficiency

The second cluster in Martinez-Alier's categorization of environmentalism (2002) is the 'gospel of eco-efficiency'. Unlike the 'cult of wilderness', which focuses on preserving natural landscapes and wildlife refuges for their aesthetic, ethical and/or recreational value, conservationists in this current are more concerned with the wise and sustainable management of 'natural resources' for economic reasons, and with controlling pollution from industrial, urban, and agricultural activities (Martinez-Alier, 2002). The disappearance of birds and insects acts as an indicator of a problem or disturbance in the environment, but not of a violation of these organisms' intrinsic value, sacredness or right to thrive (Martinez-Alier, 2002). For this cluster, the science of ecology is utilized as a managerial science to fix the ecological damage caused by industrialization (Visvanathan, 1997 as cited in Martinez-Alier, 2002). Engineers, economists, and biotechnologists are active within this current, and they adopt a utilitarian approach to managing the environment or manipulating organisms for the sake of technical efficiency and, oftentimes, economic growth (Martinez-Alier, 2002).

Historical precedents for this current date back to 19th century Europe and North America where concerns were raised about the effects of rapid industrialization and pollution on the environment and human health (Martinez-Alier, 2002). In the U.S., one of the main representatives of this current is the utilitarian conservationist and forester Gifford Pinchot (d. 1946), who is considered

one of the leaders of the conservation movement that developed in the early 20th century (Worster, 1994). Pinchot was trained in forestry management and served as Chief Forester under the Roosevelt administration (Worster, 1994). He opposed excessive resource exploitation and developed sustained-yield management systems to conserve natural resources for the sake of protecting the national economy (Worster, 1994).

George Perkins Marsh (d. 1882) is another 19th century American conservationist who is considered to be a great precursor for this current of environmentalism (Martinez-Alier, 2002), despite his views on conquering nature as a mark of civilization distinguished from savagery (Worster, 1994). Although Martinez-Alier considers the 20th century American biologist, conservationist, and author Rachel Carson (d. 1964) a successor for this current, it is noteworthy that Carson herself expressed indebtedness to 19th century figures such as Thoreau and Muir (Worster, 1994), whose ethics and appreciation for nature resonate more with the 'cult of wilderness' than the 'gospel of eco-efficiency'. Aldo Leopold also does not seem to fit neatly within one of these two currents, as he perceived nature as "resources" and supported the management and reorganization of these resources to meet people's needs (Worster, 1994). The two currents depicted by Martinez-Alier are evidently intertwined, with precedents for both existing in the conservation movement that appeared before the birth of the new environmental movement in the 1960s. Despite their connections, the 'gospel of eco-efficiency' has appeared to dominate the environmental debate socially and politically for the last several decades—especially in the U.S. and Europe (Martinez-Alier, 2002).

2.2.2.3 Environmentalism of the Poor

The third current identified by Martinez-Alier (2002) is ‘environmentalism of the poor’, which has been referred to in other studies as popular environmentalism, livelihood ecology, and liberation ecology (Garí, 2000; Peet and Watts, 1996 as cited in Martinez-Alier, 2002). This current has also been grouped with the environmental justice movement originating in the United States, although the latter is still considered a localized social movement framed around environmental racism against Blacks and minorities,¹⁹ rather than broader inequities affecting the poor more generally – irrespective of race – throughout the world (Guha and Martinez-Alier, 1997; Martinez-Alier, 2002). Environmentalism of the poor focuses on the environmental consequences of economic growth that cause social inequalities against the poor, who are usually the majority affected by distribution conflicts.

As over-consuming industrial countries exploit raw materials and goods (e.g., hydrocarbons, metals, plant-based oils, minerals, fish, etc.) from countries in the global South, poor people lose access to their lands, forests, water, and are often forcibly displaced or disproportionately suffer physical hardships or financial burdens from the effects of pollution and ecological degradation (Martinez-Alier, 2002; Guha, 1989). Threatened groups may also experience non-geographic displacement where they are marginalized and deemed disposable by new markets, thereby losing their financial security and sense of belonging to the homelands formerly sustaining them (Nixon, 2011; Hougaard & Vélez-Torres, 2020).

¹⁹ Many of the issues addressed by the environmental justice movement in the U.S. concern environmental dangers (i.e., air pollution, hazardous waste, municipal garbage, etc.) that disproportionately affect Black communities and neighborhoods.

Although many groups who call out and resist these inequities do not consider themselves environmentalists, they have a material interest in protecting the environment from pollution, depletion, or degradation (Martinez-Alier, 2002). These poor people may include hunters and farmers living in forests who resist commercial logging that destroys their soil or rivers and harms forest plants and animals harvested for food (Guha, 2014); artisanal fishermen opposed to large-scale professional trawling and industrial fishing that depletes fish stocks and undermines their livelihood (Kurien, 1992, as cited in Martinez-Alier, 2002); locals protesting dam construction that can potentially submerge hundreds of villages, forests, and ancient temples (Guha, 2014); and peasants and local communities challenging corporate and state or military-backed mining and drilling activities that cause air pollution and pollute streams and creeks that people depend on for survival (Guha, 2014; Martinez-Alier, 2002).

The poor in these circumstances may not always experience a swift, dramatic expulsion or exploitation of their means of livelihood. They may suffer more invisible, insidious forms of “slow violence”, marginalization or dispossession that occur over time and space, and causes incremental degradation and destruction for its victims (Nixon, 2011; Perry, 2020). Although low-income migrant workers in Qatar experience similar kinds of harm, they represent the most voiceless segments of the population and do not hold any political power to advocate for themselves. For a more detailed account of their experiences in Qatar, see section 4.3.

Some of these vulnerable groups believe in nature’s sacredness and appeal to its spiritual or religious value or in their indigenous right to certain territories, but

their primary concern is not defending other species' rights or that of future generations (Martinez-Alier, 2002). Their main goal is to achieve social justice and secure the livelihood of poor people today, which depends on the integrity of the natural environment and poor people's ability to access its natural resources and services (Martinez-Alier, 2002). Academics who study this type of environmentalism and related national, regional, or global resource conflicts include political ecologists, agro-ecologists, ethno-ecologists, urban ecologists as well as some scholars of ecological economics and the environmental humanities (Martinez-Alier, 2002). Although resource conflicts have existed for centuries and have been studied under different names (i.e., environmental 'agrarianism' and 'ecological narodnism') by Guha, Martinez-Alier and Schlüpmann since the mid-1980s, this current was eventually labeled more generally as 'environmentalism of the poor' in 1988 by the historian Alberto Flores Galindo (Martinez-Alier, 2002).

Even though Martinez-Alier (2002) considers Rachel Carson's ethics more closely associated with the 'gospel of eco-efficiency', and Worster (1994) demonstrates how Carson was inspired by naturalists and environmental philosophers ideologically linked to the 'cult of wilderness', Nixon (2011, p. xi) notes that Carson's work "speaks powerfully to the environmentalism of the poor" because of her passionate concern for "the complicity of the military-industrial complex in disguising toxicity, both physically and rhetorically". He also credits her for helping shift the discourse from a conservationist view to a socio-environmental perspective that empowers environmental justice struggles (Nixon, 2011). This shift coincides with the rise of the civil rights movement in the U.S. and the rebellious

counterculture opposing established institutions and values, and protesting state and industrial activities, which served as a backdrop for the modern environmental movement in the 1960s (Haq & Paul, 2012).

2.2.2.4 First & Second Wave Environmentalism

Guha (2014) adopts both a sequential and regional approach to classifying different forms of environmentalism. In his global study of the history of environmentalism, he describes the first wave of environmentalism as a response to the Industrial Revolution and its dramatic alteration of natural resource use and methods of agricultural production that led to increased pollution, degradation of natural habitats, and environmental destruction. He notes the link between industrialization and imperial expansion during the 18th and 19th centuries when White European colonists exploited greater swaths of land beyond the metropolises and decimated forests to enrich their local economies. Within this first wave of environmentalism, he elaborates on three strands that he calls: 'back-to-the-land', 'scientific conservation', and the 'wilderness idea'.

Guha's 'back-to-the-land' refers to an intellectual critique of the moral and cultural failings of the Industrial Revolution with its inhumane and polluted living and working conditions, and the threats that modern civilization pose to rural and traditional lifestyles. The 'scientific conservation' strand differed from 'back-to-the-land' in its focus on taming the excesses of industrial society rather than merely opposing it. By the 19th century, this strand had grown into a global movement with resource management agencies operating based on scientific expertise throughout Europe, North America, Asia, and Africa (Guha, 2014). This variety of

environmentalism, which focused on scientific environmentalism and used modern science to efficiently manage nature and natural resources, is the same current as the 'gospel of eco-efficiency' described above. This strand has also become known as 'ecological modernization', 'managerial ecology' or 'sustainable development' (Martinez-Alier, 2002).

The 'wilderness idea' was also a reaction from scientists and artists to the devastation of large forest and wilderness areas, but it was not merely a moral critique or a call for greater efficiency in the use of natural resources (Guha, 2014). This strand of environmentalism combined an aesthetic appreciation of nature with scientific and moral values to promote the protection of natural areas, habitats, and endangered species from human disturbance (Guha, 2014). This variety of environmentalism is the same as Martinez-Alier (2002)'s 'cult of wilderness'.

In Guha's study of the global history of environmentalism, he depicts the second wave of environmentalism as a shift from an intellectual response to a mass movement led by environmentalists (initially) in the United States starting in the 1960s. While the first wave consisted of naturalists, philosophers, poets, and scientists speaking and writing critically about the environmental consequences of industrialization and modern civilization, this wave introduces activist elements of public protest, lobbying, and working with politicians or public officials to reform policies and draft legislation for the protection of clean air and water, natural habitats, and endangered species (Guha, 2014). Guha explains how this wave of environmentalism brought about a resurgence of the three strands of environmentalism, as in deep ecology, which is described as a 'radical' strand of the

wilderness preservation movement in the U.S. Yet, this wave also highlighted new dimensions of environmentalism, including global divisions between environmental activism in the wealthy countries of the global North and the aforementioned 'environmentalism of the poor' in the global South (Guha, 2014).

2.2.2.5 Northern & Southern Environmentalism

Guha notes some salient differences between Southern and Northern environmentalism. He argues that environmentalism in the global South is still by and large based on material struggles and seeking to secure poor people's right to live and access natural resources. The tactics of environmental groups in the South are usually more adversarial than their counterparts in the North as they oppose policies and laws considered unjust and destructive to people's lands and livelihoods. Environmentalism in the global North, on the other hand, struggles with the 'effluents of affluence' and emphasizes a shift in cultural values (from materialism to 'postmaterialism'). According to Guha, environmentalists in the North adopt a more constructive approach to their programs as they work with governmental agencies to establish environmental laws and policies that protect the natural environment.²⁰

Guha notes another distinction: while Northern environmentalists are more concerned with the rights of threatened or endangered non-human species, Southern environmentalists generally focus more on securing the rights of

²⁰ There are many exceptions to this approach in the North that reflect more adversarial or militant strategies. One example is when students at the University of Copenhagen in Denmark entered a conference hall with a natural history seminar in progress and burnt garbage, shouted slogans against pollution, and sprayed polluted water from a lake on the scientists in attendance. Their goal was to incite scientists to take action against pollution, not just discuss it (See Guha, 2014).

vulnerable human communities. Martinez-Alier (2002) makes a similar distinction when discussing environmentalism of the poor, which Guha (2014) describes as combining environmental concerns with a struggle for social justice since destructive activities like oil drilling, large dam building, and commercial forestry not only cause environmental destruction but also threaten people's livelihoods. A prime example is the Indian Chipko movement of poor Himalayan peasants protesting timber contractors' felling of forest trees for external markets by hugging the trees and threatening to 'stick' to (Chipko) them (Guha, 2014). Agarwal (1990) notes that this tree-hugging action indicates that the poor actually care about the environment and not only their livelihood.

2.2.2.6 Value-Based Environmentalism

Doherty & Doyle (2006) critique the latter dualistic division between Northern and Southern environmentalism as it oversimplifies the complexity of different movements in both geopolitical regions. They argue that this North-South division is along the lines of poverty and development, yet nation-states within both regions reflect great wealth discrepancies and disparities between the rich and poor. Australian Aborigines, for example, still struggle for survival and are described as "living a fourth world existence within a first world nation-state" (Doherty & Doyle, 2006, p. 706). Impoverished communities of color in the U.S. also struggle to achieve social and environmental justice, while environmental groups comprised of White elites focus on preserving natural habitats and protecting endangered species. Conversely, many elites in the South (e.g., as in the oil rich countries of the Middle East) enjoy material comforts and affluence similar to their counterparts in

the North, and thus, do not neatly fit under either regional category. Post-socialist states are also part of regions that cannot be classified under this North-South dualism (Doherty & Doyle, 2006).

While acknowledging the common usage of this dualistic classification – despite its shortcomings – Doherty & Doyle (2006) construct another tripartite system for characterizing contemporary environmentalism based on shared values and collective histories. Their classification consists of post-industrialism, post-materialism, and post-colonialism. Post-industrialist environmentalism challenges the “excesses of the industrialist project; the rights of corporations to pollute and degrade; and the dwindling of the earth’s resources as they are fed into the advanced industrial machines” (Doherty & Doyle, 2006, p. 707). Environmental movements using a post-industrial lens are arguably most prominent in Europe and reflect this region’s scholarship on political ecology (Doherty & Doyle, 2006). The concerns of this form of environmentalism are reminiscent of those exhibited by conservationists and scientists in the current Martin-Alier (2002) termed the ‘gospel of eco-efficiency’ and the strand Guha (1989) described as ‘scientific conservation’.

Post-materialist environmentalism, on the other hand, champions the rights of non-human species, protects wilderness areas, and attempts to save endangered or threatened species. This form of environmentalism represents the non-anthropocentric concerns of movements focusing on nature conservation, which are most prevalent in the U.S. and Australia (Doherty & Doyle, 2006; Guha, 2014; Nordhaus & Shellenberger, 2007). Post-materialist environmentalism is the same

strand of environmentalism described by Martinez-Alier (2002) as the ‘cult of wilderness’ and depicted by Guha (1989) as the ‘wilderness idea’. From the late 1970s, Ronald Inglehart (1977) has viewed environmentalism that focuses on wilderness preservation as post-materialist since it reflects a cultural shift towards values including a heightened appreciation for nature as materialist needs decrease because they are already met for the most part (Martinez-Alier, 2002). Martinez-Alier (2002, p. 4) and others critique the use of this post-materialist label for the U.S., E.U., and Japan because their economic prosperity is dependent on per capita usage of large amounts of energy and materials, along with the availability of “free sinks and reservoirs for their carbon dioxide”.

Finally, a post-colonial outlook frames environmental issues as struggles between the colonizer and the colonized, and between the wealthy and impoverished. Post-colonial environmentalism is strongest in the global South and reflects the economic and environmental struggles of the majority of the world (Doherty & Doyle, 2006). This form of environmentalism shares characteristics with Guha & Martinez-Alier’s (1997) ‘environmentalism of the poor’ as well as Guha’s depiction of Southern environmentalism. Environmentalism in formerly colonized regions, as in Latin America for example (or of internally displaced and marginalized communities in the North, as in Canada, the U.S., and Australia), is often rooted in struggles to decolonize indigenous lands and cultures from political and economic domination (Cubillos et al., 2023).

Anti-colonial struggles after WWII may have contributed to ending European colonialism in the form of direct political control. Yet, the colonial mindset has

endured in what many nature-society geographers and environmental philosophers describe as imperialist, anthropocentric, utilitarian, and coercive ideologies and practices towards nature that enabled colonial powers' exploitation and, in many cases, destruction of colonized lands to enrich the metropolises at the expense of the colonized (Adams & Mulligan, 2003). Environmentalists using a post-colonial narrative frame critique these colonial ideologies and practices, and highlight liberation efforts aimed at establishing the values of justice, freedom, and equity.²¹

Although Doherty & Doyle (2006) prefer this tripartite system of categorizing environmentalism over the North-South dualism, they still recognize that modern environmentalism is more complex and diverse than depicted by their proposed classification. Martinez-Alier (2002) also recognizes some overlaps between environmentalist currents in his categorization, and notes that certain organizations can be classified under more than one strand or current of environmentalism. For example, the WWF (known in Canada and the U.S. as the World Wildlife Fund), focuses primarily on wilderness preservation and is classified as part of Martinez-Alier (2002)'s 'cult of wilderness', but it has more recently advocated for sustainable development and eradicating poverty as the best way to protect nature (Doherty & Doyle, 2006). Although the Sierra Club has historically focused on wilderness protection, it has also published books focusing on

²¹ One notable, yet oft-overlooked, example is Israeli settler-colonialism, which has resulted in Israel's continued expansion into Palestinian occupied territories and the deprivation of indigenous Palestinians of access to their land and natural resources. The creation of Israel on Palestinian land after WWII was fueled in part by the ethno-nationalist ideology of Zionism initially conceived by the Austro-Hungarian Theodor Herzl in response to European hostility against Jews. As the state of Israel continues to provide a homeland for Jews at the expense of indigenous Palestinians, its existence also provides Western powers - particularly American and European - with a strategic foothold in the region enabling their continued pursuit of imperialist and economic interests in the Middle East.

environmental justice in recent years (Martinez-Alier, 2002). Another example is Greenpeace, which initially started as an organization focused on military nuclear testing and preserving some endangered species (Martinez-Alier, 2002), but has since focused on calling out corporate and industrial polluters and tackling issues related to environmental and climate justice.

With greater overlap, collaboration, and cross-fertilization between environmental groups and movements, it becomes increasingly difficult to classify different strands of modern environmentalism. Environmental organizations are constantly evolving, adopting multi-issue struggles, and recognizing linkages between human rights and environmental protection. Movements are also transcending conceptual, cultural, and state or regional boundaries to forge transnational networks and alliances (Bandy & Smith, 2005; Doherty & Doyle, 2006). Yet, the efforts of historians, geographers and political sociologists to highlight differences between environmentalist currents based on varying historical origins, ideologies, values, and priorities is still valuable to understanding why some of these strands and their respective ideologies have converged, diverged, or become more dominant and powerful within the 21st century.

While this research draws parallels between priorities of environmentalism of the poor and the conditions of low-income migrant workers in Qatar (see section 4.3), most non-state environmentalism in the country – aside from explicitly religious forms discussed in chapters 6 and 7 – appears to demonstrate value-based environmentalism with mainly post-material and post-industrial concerns and priorities. This kind of environmentalism, while drawing on some of the values

discussed above, exhibits areligious and secular approaches to environmental issues. Post-colonial environmentalism does not appear to be a prominent form of value-based environmentalism, even though powerful transnational American and European petroleum and energy corporations are authorized to operate in Qatar and the surrounding region and continue colonizing and controlling greater areas of land for extractivist purposes. For a more detailed classification of some prominent environmental organizations in Qatar, including distinctions between secular and religiously oriented groups, see sections 8.1.1.1 and 8.1.2.

2.2.3 Market Environmentalism

One form of environmentalism not included in scholars' classifications above is market (or free market) environmentalism. This form of environmentalism is featured in this research as it represents the Qatari state's predominant approach to environmental issues and climate discourses (see section 8.1.1.2). While other forms of environmentalism find support from lovers of nature, conservationists, or social justice advocates, market environmentalism gains traction with corporate elites, wealthy neoliberal capitalists, and environmental economists promoting its ideology throughout the world. The agenda of free market environmentalism has been propagated by governments, companies, and financial institutions as well as neoliberal think tanks funded by foundations and corporations aiming to influence policy in line with market logics (Beder, 2001; Kenis & Lievens, 2016). These think tanks infiltrate networks of policy-makers, organize seminars and conferences, produce publications on free market environmentalism, and directly advise

government officials to bolster market-based mechanisms and restrict environmental legislation and regulations (Beder, 2001).

The ideology underpinning market environmentalism shares similarities with philosophies and strategies of the green economy, green capitalism, neoliberal environmental governance, and ecological modernization (Bakker, 2005; Kenis & Lievens, 2016; Castro et al., 2016), with the latter relating most to Martinez-Alier (2002)'s 'gospel of eco-efficiency'. Market environmentalism aims to reconcile economic and environmental goals, and seeks to find solutions to environmental problems using market-based principles and mechanisms (Nel, 2005; Park and Allaby, 2017). It believes in virtuously harmonizing economic growth and efficiency with environmental conservation, and approaches natural resource governance using process such as marketization, privatization, and commodification (Liverman, 2004; Bakker, 2005; Castree, 2008; Blanchard & O'Brien, 2014; Apostolopoulou et al., 2021).

For advocates of market environmentalism, ecological degradation does not signal the limits of continued capital accumulation and economic growth. Rather, the environmental crisis is perceived as another source and opportunity for further accumulation pursued through exploiting existing markets and creating new, artificial ones. As Kenis & Lievens (2016, p. 224-225) observe,

If local resources are exhausted, one can import others via the world market. If there is a problem with excessive waste, the market will quasi-spontaneously produce a waste industry, which will burn, export, recycle, or bury it. New illnesses as a result of environmental pollution provide the pharmaceutical sector with new opportunities. If people suffer from depression and burn-out, the wellness industry will turn a profit from it. If too much CO₂ is emitted, a new market is

created for trading emissions. Capitalism always appears to be able to find ways out of its crisis, on the condition that these can be sold.

Rather than making protection of the environment and human health ends in and of themselves, this market-based approach to natural resource depletion, pollution, and human health problems makes environmental concerns a means to the end of furthering economic development. Free market environmentalism places its faith in new technologies that offer 'end-of-pipe solutions' (Princen et al., 2015, p. 5) like carbon emission trading or carbon capture and storage, without challenging root problems underlying the neoliberal global order and economic/imperialist philosophies driving the pursuit of unlimited economic growth with limited natural resources (Princen et al., 2015; Kenis & Lievens, 2016; Castro et al., 2016).

Scholars studying market environmentalism critique this strand for how it makes capital the driver behind socio-environmental change and transforms land governance and conservation in ways resembling colonial practices (Nel, 2015; Barrett et al., 2016). As such, this line of critique echoes a post-colonial environmentalist approach that challenges the way elite market actors coercively colonize and exploit natural environments to enrich their companies and corporations while indigenous communities suffer from environmental injustice and experience financial hardships and health-related consequences. Unlike post-industrial environmentalism, market environmentalism does not protest the destruction of natural ecosystems or question the right of corporations to pollute the environment. Instead, it forges coalitions between banks, speculators, and capitalists at the helm of major industries (i.e., energy companies or car

manufacturers) responsible for polluting the environment as it seeks to transform them internally in line with market-based logics approaches (Kenis & Lievens, 2016).

This environmentalist trend is also marked by new patterns in alliances between conservation NGOs and corporations that are critiqued for effectively deepening rather than questioning or resisting the global hegemony of neoliberal environmental governance (McCarthy, 2012; Duffy, 2013). WWF, for example, collaborates with a number of companies including Monsanto, Nokia, HP, and Sony with the goal of making their products, practices, and services more ecologically responsible and less harmful for the environment (Kenis & Lievens, 2016). Yet, many of these multinational corporations are accused of “greenwashing” or appearing to the world as green or eco-friendly without key decision-makers genuinely transforming them from within to become environmentally sustainable (Athanasίου, 1996; Rogers, 2010 as cited in Kenis & Lievens, 2016). BP, which had renamed itself Beyond Petroleum in 2001, exemplifies this phenomenon of greenwashing. The company had spent \$600 million to present itself as an eco-friendly company, yet it continues to invest in fossil fuel development including hydrocarbon exploration and extraction projects (Worth, 2010 as cited in Kenis & Lievens, 2016). Nixon (2011, p. 37) elucidates the greenwashing strategies of these corporations as follows:

Gargantuan transnational corporations like BP, ExxonMobil, Shell, Freeport McMoran, and Walmart have wised up to the kudos they can gain from greenwashing in the countries of the rich, through high-minded advertisement campaigns, through strategic donations to NGOs and universities, by buying out or intimidating scientists who

might testify against the slow violence of their practices, and through rarified talk about being fine stewards of our delicate planet.

The collaboration between NGOs, corporations and governance and financial institutions is perceived as part of a broader strategy to “integrate environmental antagonism into the existing institutional and economic framework” (Kenis & Lievens, 2016, p. 230). This approach succeeds by neutralizing formerly contentious social relations and depoliticizing them so they appear cooperative, objective, and logical as opposed to being charged by political realities such as power or conflict (Mouffe 2005; Jaeger, 2007; Duffy, 2013; Kenis & Lievens, 2016; Ciplet & Roberts, 2017). In reconfiguring social relations and depoliticizing environmental concerns (e.g., toxic wastes trade or fossil fuel investments), market actors can then reframe environmental issues away from ‘political’ and value-based discourses focusing on equity and global justice in order to make these activities appear essential for sustained economic development (Ciplet & Roberts, 2017). These strategies serve to expand and normalize the green economic project at the expense of the poor and powerless victims of environmental degradation. Meanwhile, an increasing number of global capitalists and financial institutions continue to profit in the name of economic growth without restrictive legislation from governments or active resistance from major environmental institutions effectively subsumed and integrated into the hegemonic neoliberal global order.

CHAPTER 3: ISLAM & ENVIRONMENTALISM

This chapter begins with an overview of religious environmentalism (3.1), which is featured in this research as it manifests primarily in environmental discourses of Muslim scholars and various initiatives of non-state actors or state-supported environmental organizations in Qatar (see chapters 4 and 5 and section 8.1.1 and 8.1.2). The chapter then focuses on Islamic environmentalism, explaining important eco-theological concepts (3.2) as well as ethical principles and directives (3.3) highlighted in Islamic environmental discourses. These religious concepts and directives are used to both elucidate the priorities of contemporary Muslim scholars and examine the gaps between – and potential of – Islamic environmental thought and practice in Qatar (see section 4.2 and chapter 6). This chapter also presents three different manifestations of contemporary Islamic environmentalism, including pedagogical, exemplary, and holistic environmentalism (3.4). Holistic environmentalism is particularly featured as an all-encompassing, ideal form of Islamic environmentalism that may prove challenging, yet most promising, to strive for in Qatar (see section 8.2).

3.1 Religious Environmentalism

Along with market environmentalism, religious environmentalism is another form of environmentalism missing in scholars' classifications of environmentalism detailed in section 2.2.2 of the previous chapter. Religious environmentalism is contrasted with secular environmentalism characterizing more dominant strands of the modern environmental movement (Smith & Pulver, 2009). Although religious ideas have arguably shaped conceptions of nature and environmental thought more

generally in Europe and the U.S. since the late 19th and early 20th centuries (Berry, 2014; Berry, 2015), religious voices and communities began turning their attention to environmental issues more prominently in the 1960s and 1970s (Carlisle & Clark, 2018) and many distinctly religious environmental organizations appeared in the 1990s (Ellingson et al., 2012). While some downplay the role of religion in contemporary environmentalism (Berry, 2015; Ellingson, 2016) or echo White's (1967) attribution of environmental degradation to certain religious (particularly Occidental, Christian) anthropocentric and instrumentalist views (Shabecoff, 2000), others highlight new, eco-theological readings of sacred texts and consider the emergence of religious environmentalism a positive development capable of advancing pro-environmental attitudes and behavior (Hallum, 2003; Okafor, 2015). The rise of religious environmentalism is particularly welcomed in modern secular societies that either marginalize religion in the favor of "neutral" scientific reasoning and secular values or seek to relegate matters of faith to the private sphere (Hallum, 2003; Gottlieb, 2017).

As with other environmentalist trends, religious environmentalism is marked by a plurality of philosophies, ideas, and worldviews shaping conceptions of the natural world and socio-environmental relations, and this plurality stems in part from the diversity existing across and within religious traditions. Faith-based groups may adopt different approaches to environmentalism as well, with some groups focusing on deriving eco-theologies from particular readings and interpretations of sacred texts, and stressing the responsibility of caring for the earth and its inhabitants, for example, or calling for social justice (Moyer &

Scharper, 2019). Others might prioritize cultural ideas and traditions that may stem from scriptural or theological readings, but that have evolved into more independent ideas and forms (Moyer & Scharper, 2019).

Despite variations in worldviews and approaches to environmentalism in the different world religions, spiritual philosophies and native traditions (e.g., as in Asia, Africa, and the Americas), there is a common belief that the non-human world has some kind of intrinsic value and moral or spiritual significance apart from its serviceability or material use to humans (Gottlieb, 2017). This special status of nature can exist on a spectrum, with some traditions sacralizing or even deifying nature and others treating it as a created gift from God worthy of respect, care, love, and compassion (Gottlieb, 2017). In addition, nature presents an opportunity for religious environmentalists to cultivate a sense of awe and wonder, and in many ways to reflect on the goodness, benevolence, and beauty of God or some higher power (Francis, 2015), as opposed to merely appreciating the aesthetic beauty of nature for its own sake (Smith & Pulver, 2009).

Since nature possesses some degree of moral value or spiritual significance from a religious standpoint, many religious environmentalists use moral language to describe wasteful, greedy, racist or unjust practices that harm living species or pollute and degrade the environment (Hallum, 2003; Gottlieb, 2006; Gottlieb, 2017).

Patriarch Bartholomew, for example, asserts:

For human beings...to destroy the biological diversity of God's creation; for human beings to degrade the integrity of the earth by causing changes in its climate, by stripping the earth of its natural forests or destroying its wetlands; for human beings to contaminate the earth's waters, its land, its air, and its life – these are sins. (Francis, 2015, p. 8)

For religious environmentalists, the “sickness” of the earth’s soil, water, air and living beings may also be viewed as a reflection of the spiritual illness of people’s hearts due to various moral vices such as arrogance, greed, or lust (Hallum, 2003; Francis, 2015, p. 3). Religious approaches to environmentalism also create moral links between environmental destruction and the socio-economic conditions of the poor and marginalized in society (Mastaler, 2011; Gottlieb, 2017). Caring for the most vulnerable communities disproportionately affected by climate change, habitat loss, and natural resource depletion is perceived as a moral corollary and application of the theological principle of loving one’s neighbor, which may also manifest publicly in the call for justice (Mastaler, 2011; Bomberg & Hague, 2018; Moyer & Scharper, 2019).

In classifying religious environmentalism, some scholars consider it a form of “ethics-based environmentalism” rather than an “issues-based environmentalism” (Smith & Pulver, 2009). An ethics-based approach to environmentalism focuses on promoting changes in societal values and attitudes affecting people’s individual and collective behaviors and lifestyles, while an issues-based approach focuses on specific topics (i.e., global climate change, biodiversity protection, or water pollution) that require scientific and technological changes or new environmental policies and legislation (Smith & Pulver, 2009). Although overlap may exist between the two forms of environmentalism, priorities and strategies differ between the two forms. Groups approaching environmental advocacy from an ethics-based approach believe changes in values and lifestyles may eventually lead people to respond appropriately to environmental issues. These groups may hold discussions on

environmental stewardship, for example, and only use certain environmental issues (e.g., air or water pollution) to illustrate particular areas in which stewardship is needed. Groups adopting issues-based approaches also believe in the importance of creating an environmental ethic, but their strategy is to tackle particular environmental issues first (Smith & Pulver, 2009). They may focus on letter-writing campaigns to protest arctic drilling, for example, but might not encourage individuals to reconsider their energy consumption habits (Smith & Pulver, 2009). Both ethics-based and issue-based environmentalism feature in Qatar. An example of the former can be found in the discourse of environmental leaders of the Qur'anic Botanic Garden (see section 7.3) while the latter can be found in the advocacy work of Syeed Showkath, one of the representatives of the Arab Youth Climate Movement Qatar (see sections 5.1 and 5.2).

Scholars disagree on the extent to which eco-theological principles and religious values ought to be expressed as public discourse and activism to qualify as religious environmentalism. Gottlieb (2006, 2017), for example, insists on the necessity of religious values and moral teachings being brought to the fore of political life. He posits that theological values and moral criticism of environmentally destructive acts “necessarily lead religious environmentalists to political activism” because the political realm determines most of society’s collective behavior and it is where “power, privilege, production, consumption, distribution, sanctioned violence, and law are shaped” (Gottlieb, 2017, p. 441). Although he does not negate the value of individual eco-friendly decisions that may stem from religious convictions, Gottlieb argues that living a moral life is not truly possible

without “assessing and critically engaging with political reality” (p. 441) and asserts that religions have the power to mobilize citizens in order to transform societies at a larger scale to establish noble values such as equality, justice, and freedom. This view is relevant to the critique of the Qur’anic Botanic Garden in this study (7.4) promoting a more political role for this powerful religious organization.

Other scholars critique the restriction of religious environmentalism to concerted and public expressions of religious beliefs and values. Baugh (2019), for example, contends that limiting religious environmentalism to collective, political efforts is not only adopting the White, American model of environmentalism, but it also overlooks the many ways in which theology influences religious environmentalists’ attitudes and behaviors without always leading to political engagement or calling publicly for social and political change. Based on her results from focus groups and interviews with White Unitarian Universalists and Latina/o church congregants at a Catholic church in Los Angeles, Baugh distinguishes between two forms of environmentalism: “explicit” and “embedded” environmentalism. Explicit environmentalism, which characterizes the UU congregants’ environmental activities, is expressed through attending environmental events, supporting environmental policies, and buying green products for example. Embedded environmentalism, which may characterize the Catholic church congregants’ environmentalism, manifests in implicit and less obvious sensibilities and concerns for the environment rooted in religious beliefs, but do not necessarily lead to political advocacy. For discussions on embedded environmentalism in Qatar, see chapter 7 and sections 8.1.2 and 8.3.

As with other categories of environmentalism, both Baugh's (2019) and Moyer & Scharper's (2019) studies demonstrate that religious environmentalism encompasses vastly different worldviews and oft-divergent approaches,²² with some religious individuals and faith-based groups expressing care and concern for the environment through spiritual, scriptural or theological reflections that may or may not be publicized, and others advocating for environmental protection through public declarations, policy advocacy, and political activism. Politically active religious environmentalists may find inspiration in religious teachings and values, but their commitment to the environmental cause does not stop at attitudinal or individual lifestyle changes. Rather, as Gottlieb (2006, 2017) demonstrates, their religious environmentalism is marked by public and collective action that seeks broader and more far-reaching social, political, economic and structural changes aimed at protecting the environment from degradation and destruction, while also aiming to establish shared moral values including respect, compassion, justice, freedom, and equality.

3.2 Islamic Eco-Theological Concepts

Within the religious environmentalism literature, faith-based perspectives focus mostly on Judeo-Christian viewpoints while Islamic environmental thought and practice rarely receive any mention. Muslim scholars have written extensively

²² While this section addresses positive religious engagements with environmentalism, it is noteworthy that not all religious perspectives and denominations favor environmentalism. Indeed, some of the loudest and most powerful religious voices (e.g., evangelical Protestants) in the political sphere (particularly in the U.S.) have been vehemently anti-environmentalist. Anti-environmentalist views arguably stem from a strong union between the Christian Right and the Republican Party. Yet, some scholars (e.g., Danielson, 2013; Carlisle & Clark, 2017) have observed a widening rift between evangelical Christianity and the far-right as young "moderate" evangelicals have increasingly adopted more pro-environmentalist views in recent years.

about the natural environment and socio-environmental relations throughout Islamic history, yet it is only within the past several decades that Muslim voices have contributed increasingly to environmental discourses specifically addressing global environmental challenges such as climate change, biodiversity loss, and deforestation.²³ Muslim intellectuals and environmental advocates' perspectives on environmental issues vary considerably based on their respective expertise, interests, and priorities. Some Muslim scholars and philosophers (e.g., Seyyed Hossein Nasr) pinpoint the historical and intellectual problems leading to the environmental crisis while offering spiritual remedies and solutions gleaned from Islamic principles and teachings. The rift many scholars believe exists between humans and the environment, for example, has been attributed in part to the effects of Cartesian dualism originating during the Enlightenment (Izzi Dien, 2000, 2003; Ouis 1998; Khalid, 2017; Mevorach, 2017). While this dualistic way of thinking separates humankind from nature, these scholars promote an Islamic conception that views nature holistically as God's creation and considers humanity as an integral part of nature.

Other scholars, including Othman Llewellyn, approach environmental issues mainly from a methodological (*uṣūlī*) and ethico-legal point of view. These scholars argue for increased engagement of Muslim jurists in contributing solutions to environmental problems and call for both the adoption and implementation of Islamic legislation and traditional Islamic institutions in Muslim countries that can

²³ Exceptions include Seyyed Hossein Nasr, who has been discussing the environmental crisis from an Islamic perspective for the past sixty years, and Maw'il Izzi Dien, who has also been addressing environmental issues from an Islamic perspective for the past forty plus years.

protect the environment and sensitive habitats from pollution and degradation (Ba Kader et al., 1983; Bagader et al., 1994; Llewellyn, 2003). Abdel Majeed al-Najjar (2008) references clear legal rulings deduced from Islam's scriptural texts²⁴ to demonstrate that environmental protection is not only an obligation in the *sharī'a* (Divine Way), but rather, one of its essential higher aims and objectives (*maqāṣid*). Yusuf Al-Qaradawi (2001) also considers environmental protection (*ḥimāya*) and conservation (*ḥifz*) one of the higher objectives (*maqāṣid*) of the *sharī'a* as it is thoroughly intertwined with the five fundamental necessities (*ḍarūriyyāt*) traditionally known as preservation of faith/religion (*dīn*), life, posterity, intellect, and wealth/property. He also demonstrates through commentary on numerous scriptural texts, juristic principles and legal rulings how environmental care (*ri'āya*), conservation, and protection are integral to many disciplines of the Islamic sciences, including theology and principles of faith (*uṣūl al-dīn*), personal development and asceticism (*tazkiya* and *taṣawwuf*), jurisprudence (*fiqh*), legal methodology and principles of jurisprudence (*uṣūl al-fiqh*), and the sciences of Qur'an and Sunnah considered foundational pillars for all the aforementioned disciplines. Tariq Ramadan (2009) also considers respect for nature and animals one of the higher ethical aims of the *sharī'a*, yet, like Fazlun Khalid (2020), insists that ecological problems cannot be addressed adequately without critiquing the dominant economic models obsessed with growth and quantitative development. Ramadan calls for more critical studies that question these models and for more Muslims to propose alternative models of development prioritizing ethical aims and objectives.

²⁴ Examples include the prohibition of harm and corruption/destruction of entire living communities such as ant and bee colonies.

Much of the contemporary Islamic environmental literature turns to the Islamic tradition to emphasize certain readings of Qur'anic verses (*'āyāt*) and prophetic sayings (*'ahādīth*) that promote harmonious relations between people and the environment. Scholars and environmentalists who use this approach believe Islam is an inherently eco-friendly religion that encourages environmental care and compassion, and frowns upon environmental degradation, destruction, and harming or mistreating living creatures. As such, their contributions to the environmental discourse seek to elucidate or reiterate Islamic principles and teachings affirming this belief, while at times also encouraging Muslims to adopt more environmentally responsible behavior in line with these principles and teachings. The strategy often used in the latter approach is to take established theological concepts and ethical principles broadly understood to guide humanity's relationship with God and other people, and to reframe them in environmental terms or apply them more clearly and specifically to people's responsibility toward non-human creation and the environment. These concepts and principles include: *tawḥīd*, *'āyāt*, *mīzān*, *khilāfa*, *'ubūdiyya*, and *taskhīr*. Of these five concepts, *khilāfa*, *ubūdiyya*, and *taskhīr* are most relevant to Islamic environmental discourses of Muslim scholars in Qatar. For a detailed account of contemporary debates and discussions of these concepts, see sections 6.2 and 6.3.

The Oneness of God (*tawḥīd*) is one of the most frequently mentioned theological concepts in the Islamic environmental literature, and it is often referred to as the foundational “eco-theological” or “eco-ethical” principle underpinning the Islamic worldview and its conception of nature. *Tawḥīd* establishes a dualistic

relationship between the Creator and the created (Ouis, 1998; Ammar & Gray; 2017), affirming the unity of God as the Lord, Sustainer, and Owner of all living creatures while unifying all other beings in their createdness and submission to His divine order and natural laws (Izzi Dien, 2000; Al-Qaradawi, 2001; Haneef, 2002; Llewellyn, 2003; Johnston, 2012; Mohamed, 2016). This concept is used to emphasize the unity, love and interconnectedness between people and nature as creations of God that share many traits including their social structure as *'umam* or communities (Al-Qaradawi, 2001; Al-Najjar, 2008; Chittick et al., 2012; Kamali, 2015; Ammar & Gray, 2017; Redwan, 2018).²⁵

Tawḥīd not only has an effect on the perception of God and the relationship between people and nature, but also on how nature itself is viewed ontologically. One of the implications of *tawḥīd* that scholars and environmentalists highlight is that nature holds inherent value because it is part of God's creation that glorifies and sings His praise, and is, thus, worthy of care and respect (Al-Attas, 1978; Ba Kader et al., 1983; Bagader et al., 1994; Al-Qaradawi, 2001; Özdemir, 2003; Mohamed, 2014; Redwan, 2018). Nature is viewed as having a distinct spiritual and religious status that some describe as sacredness, but not divinity (Ouis, 1998; Abdul-Matin, 2010; Kamali, 2015; Nasr, 2017). Yet, some scholars argue that nothing except God is sacred and insist that attributing sacredness to nature is committing *shirk* or associating partners with God (Faruqi & Faruqi, 1986).²⁶ Others

²⁵ Other shared traits that scholars (e.g., Al-Najjar, 2004) mention include: originating from water and the earth, having similar chemical compositions, being created in pairs, submitting to the same natural laws, experiencing cycles of growth/vibrancy and decay/decline, and ultimately perishing or dying.

²⁶ These scholars appear to consider the attribution of sacredness to nature as a claim that nature is God, part-God, or has God-like traits.

distinguish between divinity and sacredness, arguing that the duality created by the concept of *tawhīd* makes everything divine (i.e., from God), but not sacred, since it all manifests God's power (Ammar & Gray, 2017). The Qur'an emphasizes God's oneness, transcendence and uniqueness apart from His creation (Qur'an 42:11, 102:4) while still attributing sacredness or holiness (*qadāsa*) to certain places (Qur'an 5: 21, 79:16). As such, it appears that scholars of Islam who describe nature as sacred are not conflating nature with God or attributing God-like qualities to nature, but, rather, affirming its spiritual status and eliciting awe and reverence for it because it emanates from a divine source.

To highlight the spiritual status of nature, Muslim writers also address the role of nature and natural phenomena as God's signs (*'āyāt*). They draw parallels between the revealed verses of the Qur'an (also termed *'āyāt*) and the countless signs in creation with which God also communicates (Al-Qaradawi, 2001; Ramadan, 2009; Baharuddin, 2011; Khalid, 2017). As a counterpart to the Qur'an, the revealed 'book' of the universe is divinely authored for humanity to 'read' and its wonders are designed to be amenable to human reflection and contemplation (Özdemir, 2003; Ramadan, 2009; Brockopp, 2012; Mohamed, 2016). Both revelations are also considered necessary to guide people as nature elucidates the meanings of the Qur'an, while the Qur'an provides a spiritual lens through which to understand and appreciate God's natural wonders (Izzi Dien, 2000). The idea of nature constituting God's signs holds important spiritual relevance for socio-environmental relations. Protecting living creatures, communities, and natural habitats from harm or destruction not only has ecological value; it also aids in fulfilling a religious objective

by preserving the integrity of the natural environment through which people find God and come to recognize His unity, power, and mercy (Izzi Dien, 2003).

Another concept Muslim thinkers and environmentalists mention often with regard to the perception of nature relates to the order and balance inherent in its creation. This concept ties into environmentalist thought and practice in Qatar in section 7.3. Referred to as *mīzān*, this concept is gleaned from numerous Qur’anic verses (e.g., 15:9, 55:7-8) and is used to describe how God created everything in the universe (e.g., natural elements, planetary orbits, and atmospheric composition) with precise measure and due proportions (Ouis, 1998; Abdul-Matin, 2010; Al-Najjar, 2004). Some argue that the natural systems God established function properly because they submit to God’s will (Khalid, 2017), while anthropogenic activities causing, for example, resource depletion, species extinction, or air and water pollution, make the universal order deviate from the divine way (*sunnatu’Allah*). These acts lead to corruption on the earth (*fasād*) and transgressing the divine balance (Bagader et al., 1994; Khalid, 2017; Mohamed, 2016; Al-Najjar, 2004). The Qur’anic usage of this concept can be utilized—along with the concept of justice (*‘adl*)—to discuss Islamic conceptions of environmental justice (Hancock, 2018). Yet, many writers refer to this concept more broadly to describe the intrinsic harmony in the natural environment rather than the struggle to promote more equitable conditions and relationships between poor or disadvantaged communities and their environments.

One of the most important and contentious debates in the contemporary Islamic environmental discourse (both globally and in Qatar [see section 6.2])

relates to the role of human beings on earth and the status they occupy within the broader web of life. The central concept in this debate is *khilāfa*, which is derived from the Arabic trilateral root (*kh-l-f*) and mentioned in various forms in multiple Qur’anic verses (e.g., 2:30, 27:62, 57:7). Most scholars apply this concept to human beings—not to any other known species or sentient beings—who are qualified to fill this position (Izzi Dien, 2000; Llewellyn, 2003; Khalid, 2017).²⁷ Often translated as vicegerency, viceregency, stewardship, deputyship, viceroyship, or trusteeship,²⁸ the concept of *khilāfa* is used in the Islamic environmental literature to establish the ethical imperative and God-given responsibility for humans to care for the environment, maintain its balance, and protect living communities (Al-Qaradawi, 2001; Redwan, 2018; Azizan, 2010). Muslim writers often quote the following prophetic saying (*ḥadīth*) that conveys this understanding of *khilāfa*: “The world is sweet and green, and verily God has established you as a *khalīfa* in it in order to see how you act” (Muslim).²⁹

Some contemporary scholars problematize the traditional understanding of *khilāfa*, arguing that it privileges human beings at the expense of other creatures and wrongfully places them in a superior position above the rest of creation. Contesting the common translation and interpretation of the phrase *khalīfa* as

²⁷ The Qur’an states, for example, that God made Dawūd, the Prophet of the Israelites, a *khalīfa* whom He commands to rule between people with justice and not to be swayed by his desires (38:26). Accordingly, some scholars will limit the authoritative role of *khalīfa* to prophets only. Yet, most others contend that this role (in its meaning as vicegerent) applies to all righteous people who follow God’s laws as His faithful servants.

²⁸ Trusteeship is more closely related to the Qur’anic idea of the trust (*amāna*) offered to but rejected by the heavens, the earth and the mountains, which the human being eventually shouldered (Qur’an, 33:72). According to Qur’anic exegetes, the *amāna* refers to having “the awareness of God and his ordinances, the application of the duties expected by this ordinance, and bearing both the reward and the punishment” (Izzi Dien, 2000, p. 77).

²⁹ Related by Muslim.

vicegerent, some argue that *khalīfa* more accurately means successor and a *khalīfa* is a creature that follows or replaces another creature once the latter perishes or dies (Maydani, 1991, as cited in Izzi Dien, 2000; Tlili, 2020).³⁰ This understanding makes it theologically problematic to imply that human beings represent God on earth when God is Ever-living and always fully involved in the affairs of His creation (Maydani, 1991, as cited in Izzi Dien, 2000; Hancock, 2018; Tlili, 2020).

Qur'anic exegetes (e.g., al-Tabari, Al-Qurtubi, al-Razi) and prominent Muslim scholars and thinkers (from Ibn Taymiyya to al-Mawdudi) have discussed and extensively debated the meaning of *khalīfa* and to whom it refers. For an overview of different perspectives, see Izzi Dien's *Environmental Dimensions of Islam* (2000, p. 75-76) and Tlili's *Animals in the Qur'an* (2012, pp. 115-123). Some contemporary refutations of the widely accepted understanding of *khalīfa* echo classical arguments in eco-Islamic discourses to promote non-anthropocentric readings of Islam's sacred texts and demonstrate that God did not favor human beings or make them hierarchically superior to other creatures or the natural environment.

Even though the literal meaning of the root word *khalafa* and its various derivatives apply with respect to individuals or generations succeeding or replacing one another over time (e.g., Qur'an, 7:74, 129,142), scholars argue that the Qur'anic usage of the phrase *istikhlāf* designates people as God's deputies or representatives without negating His presence, ultimate authority, and active role on earth (Izzi

³⁰ Tlili (2012) explains that early exegetes understood the verse saying God is placing a *khalīfa* on earth (2:30) to mean that Adam and his progeny would succeed the earth's former inhabitants (*jinn*), not that this species would have authority over the rest of creation. She also notes that, even if the verse designating Prophet David a *khalīfa* implies authority, David is commanded to rule with justice between people not non-human creation.

Dien, 2000). Others maintain that even the Qur'an's general reference to the human being as *khalīfa* (i.e., 2:30) or people as *khulafā'* (i.e., 27:62) implies trusteeship or representation of God, not merely succession (Haneef, 2002; Hancock, 2018). Yet, some insist that early audiences of the Qur'an did not take the word *khalīfa* to denote representation and authority, and that this interpretation came after the establishment of the political institution of the caliphate (Tlili, 2012).³¹ Those problematizing the common understanding of *khilāfa* reject the idea of human exceptionalism, insisting that other creations, like the ones with which God makes oaths in the Qur'an, have a distinguished status with God (Tlili, 2012; Gade, 2019). They actively challenge traditional anthropocentric readings of the Qur'an and promote ecocentric readings that highlight the spiritual status and value of other creatures (Gade, 2019).

Other scholars and environmentalists embrace a clear anthropocentric perspective—albeit with conditions—and argue that within the Islamic worldview, human beings occupy the highest and most noble position of God's creation on earth (Özdemir, 2003; Foltz, 2006; Abdul-Matin, 2010; Al-Najjar, 2004). Some posit that the role of *khilāfa* privileges humans compared to other creatures (Keshani, 2010; Abou El Fadl, 2017) and believe that “humans are honored and celebrated because they are God-like, capable of doing God-like things” (Abou El Fadl, 2017). Many other contemporary Muslim scholars and environmentalists agree that human beings are honored and dignified creations of God, but maintain that their role of

³¹ Tlili (2012) argues that Qur'anic exegetes (e.g., al-Tabari, al-Razi, and al-Qurtubi) who include governing or representing God in their meaning of *khalīfa* have been influenced by the political reality of the caliphate, which made them read this meaning into their exegesis.

khilāfa does not make them privileged or superior to other creatures, nor does it give them the license to dominate, exploit the earth, and greedily or arrogantly usurp its resources (Hamed, 1993; Llewellyn, 2003; Özdemir, 2003; Mohamed, 2016; Ammar & Gray, 2017).³² Some Muslim writers express the conditions for the role of *khilāfa* through the concept of usufruct, which entails that humans have the right to enjoy God’s provisions and to use the earth’s natural resources to achieve higher spiritual and ethical aims, but on the condition that they do not waste, deplete, or destroy these bounties and resources in the process (Mohamed, 2014, 2016; Ammar & Gray, 2017).

Despite differing opinions on the interpretation of the phrase *khalīfa* and its variant forms in the Qur’an, the idea that human beings are vicegerents entrusted with caring for the earth and God’s creation is corroborated by other Qur’anic concepts such as trusteeship (Qur’an, 33:72) and trialing people (Qur’an, 6:165, 67:2) to determine how they will act. One *ḥadīth* related by Bukhari and Muslim also describes people as shepherds who are accountable for how they treat those entrusted to their care. The concept of *khilāfa* itself is also explicitly mentioned in a *ḥadīth* related by Muslim stating that God established the human being as a *khalīfa* on earth to see how he acts.

The role of *khilāfa*, many argue, is tempered by the concept of slavehood (*‘ubūdiyya*), which makes human beings recall their shared state of submission with the rest of God’s creation and reminds them of their accountability before God on

³² Scholars provide many reasons for the honored status of human beings, including God breathing His spirit into Adam, commanding the angels to prostrate to him, and granting him knowledge which even the angels were not given.

Judgment Day (Izzi Dien, 2003; Al-Qaradawi, 2001; Haneef, 2002; Llewellyn, 2003; Özdemir, 2003; Baharuddin, 2011; Chittick et al., 2012; Ammar & Gray, 2017). Some scholars and environmentalists believe that the most dangerous thing to the natural environment is human beings having the power of vicegerency and authority to manipulate the natural environment at will, while refusing to accept slavehood (*‘ubūdiyya*) before God (Izzi Dien, 2000; Nasr, 1997, as cited by Mohamed, 2016). Failing to surrender to God’s will can make human beings not only unable to fulfill the role of vicegerency, but it can also convert them into agents of corruption who destroy the creatures entrusted to their care (Chittick et al., 2012). Many view that faithfulness to the God-given role of *khalīfa* requires respecting the guidelines and laws of the Master and Owner of the earth (Hamed, 1993; Izzi Dien, 2000; Al-Qaradawi, 2001; Haneef, 2002; Özdemir, 2003; Kepplinger, 2020). Despite people being capable of violating God’s laws, spilling blood and spreading corruption (Qur’an, 2:30), God’s decision to make them vicegerents on earth demonstrates (some) human beings’ ability to respect the boundaries God has established as well as human beings’ potential for doing good, promoting justice (*‘adl*), and engaging in rectification (*iṣlāḥ*) of moral ills and transgressions against God’s creatures (Llewellyn, 2003; Baharuddin, 2011). Respecting God’s laws is described as living “in harmony with God,” which is believed to be the only way to find harmony with God’s creation and establish peace, equity, and balance on earth (Chittick et al., 2012).

Another Qur’anic concept discussed with some tension in the Islamic environmental literature is *taskhīr*, which is variably translated as serviceability,

amenability, malleability, subjection, subjugation, and adaptation. In numerous verses, the Qur'an indicates that God has *sakhhara* or *sakhhara lakum* everything in the heavens and earth, as well as specific creations (e.g., the sun, moon, stars, ocean, rivers) and phenomena (e.g., day and night). Muslim scholars and environmentalists explain this concept specifically because it can be misused to support ideas of human beings' dominion or control over non-human creation (Ouis, 1998).

Scholars refute these dominion-associated connotations by arguing that this serviceability or usefulness is granted to humans to enable them to fulfill their role of worshiping God, which is a higher end that unites them with other creatures (Setia, 2007, as cited in Hancock, 2018). Others say this serviceability is afforded to human beings because they are vicegerents, and they are bound by God's laws in the way they interact with or manage the earth's bounties in order to fulfill the responsibility of *khilāfa* (Nasr, 1993; Ouis, 1998; Baharuddin, 2011).³³ The verses of *taskhīr* also reveal God's ability to subjugate things in order to make them serviceable to humans, which demonstrates humans' limitations and lack of self-sufficiency while establishing God's superiority, dominion and absolute authority over His creation (Tlili, 2012). In addition, serviceability, itself, does not indicate inferiority, as many people benefit from the services of others who surpass them in physical strength, social status, knowledge, etc. (Tlili, 2012).

Moreover, many verses about *taskhīr* remind people to reflect and give thanks to God, so the purpose of recounting the creations that God made serviceable

³³ Scholars who do not accept the interpretation of *khilāfa* as vicegerency or stewardship do not support this purpose of *taskhīr*.

to them is not to establish people's superiority, but to highlight God's mercy and compassion, and remind people to inculcate humility, contemplation, and gratitude (Al-Qaradawi, 2001; Ouis, 1998; Tlili, 2012). If people continue to be ungrateful, though, God has the power to subjugate creation (e.g., the wind [Qur'an, 69:6-7], birds [Qur'an, 105:3-5], or other creatures [Qur'an, 7:133]) *against* and not *for* people, which also supports the idea of human beings not having ultimate authority over non-human creation (Tlili, 2012). In addition, human beings are not the only beneficiaries of *taskhīr* and nature also possesses value for other creatures (Llewellyn, 2003). Yet, God emphasizes the concept of *taskhīr* in the Qur'an because this book is a message directed to human beings and its guidance is relevant specifically to their lived experience (Izzi Dien, 2000; Tlili, 2012, Mohamed, 2016).

This section reviewed some of the most oft-mentioned theological concepts and principles that Muslim writers draw upon to construct Islamic narratives that promote balanced, respectful and harmonious ecological relations between people and the natural environment. It is evident that most contemporary Muslim scholars and environmentalists use concepts such as *khilāfa* and *taskhīr* not to challenge God's unity and ultimate sovereignty, or even to bolster human beings at the expense of other creatures, but to promote a sense of responsibility and humility toward the rest of God's creation. Based on these two concepts, though, an implicit understanding is revealed: humans do have *some* power and authority to manipulate nature. Other creations that glorify God and sing His praise deserve respect and appreciation for their intrinsic value and spiritual status. Yet, humans occupy a unique position in that they are the only sentient beings capable of

transforming and managing the earth's bounties and resources at regional and global scales. Since this power can be abused easily by those who pollute the environment and exploit the earth's resources for economic gain and expedience, it is necessary to reinforce concepts such as stewardship, slavehood, and divine accountability as these concepts provide the religious and spiritual impetus to counteract the destructive forces of greed and corruption.

While some Muslim scholars seek to negate human vicegerency and promote more ecocentric readings of the Qur'an, other scholars and activists implicitly or explicitly demonstrate the value of maintaining an anthropocentric approach to effectively address the environmental crisis (see section 6.2 for a more detailed debate on the concept of *khilāfa* in Islamic environmental thought in Qatar). Since humans play a central role in disturbing the ecological balance and wreaking havoc on the earth, it is human beings who must also play a central role in restoring the natural order by resisting transgressions against God's laws and against the rest of God's creatures. This meaning is conveyed in the Qur'an when it speaks of corruption (*fasād*) appearing on land and in the seas so people can first taste some of the consequences of their actions, and then "return" (Qur'an, 30:41). According to this verse, God is calling the species that caused the damage to rectify its course. The inward dimension of rectification (*iṣlāḥ*) includes turning back to God and repenting for inward spiritual sins (e.g., arrogance or greed) and wrongs committed against the earth and its inhabitants. It also entails restoring the pure, innate disposition (*fiṭra*) that allows human beings to recognize God and His signs (*āyāt*) in the universe. Embarking on a path of inner purification and growth (*tazkiya*) can

spiritually equip people to traverse the straight, godly path (*al-ṣiraṭ al-mustaqīm*) distinguished by loving God, honoring His limits and boundaries, treating His creation ethically and compassionately, and working sincerely to create diverse and thriving (human and non-human) communities living together in peace, harmony, and unity.

3.3 Islamic Ethical Principles & Directives

In addition to the aforementioned eco-theological concepts, contemporary Islamic scholarship on the environment addresses numerous ethical principles, values, and teachings pertinent to humanity's relationship with the natural world. Many scholars emphasize particular virtues deemed praiseworthy in the Qur'an or Hadith that can improve people's treatment of nature when applied individually and collectively. Some also bring to light certain reprehensible vices mentioned in scriptural texts that contribute to pollution, damage or destruction of the natural environment or living creatures. Some of the ethical principles and virtues scholars discuss in relation to people's interaction with the natural world include: justice (*ʿadl*), kindness or beneficence (*iḥsān*), compassion or gentleness (*rifq*), mercy (*raḥma*), and moderation (*iqtiṣād*). When directed toward the natural environment, the aforementioned virtues contribute to promoting broader ethical conceptions of good (*khayr*) or benefit (*maṣlaḥa*), while the lack thereof (or their opposing traits) contribute to what is considered bad or evil (*shar*) and may lead to some form of harm (*ḍarar*) or corruption and detriment—known as *mafsada* (Ba Kader et al., 1983; Bagader et al., 1994; Izzi Dien, 2003; Llewellyn, 2003). These principles are relevant to Islamic environmentalist discourses in Qatar, particularly when

investigating disparities between Islamic ideals and environmental practice (see sections 4.1, 4.2 and 6.3). They are also pertinent to unveiling links between environmental harms and social injustice in Qatar (see section 4.3).

The ethical principles of justice (*‘adl*) and kindness (*iḥsān*) are often addressed together in the Islamic environmental literature due to their pairing in the Qur’anic verse (16:90) that begins with the command from God to actualize both traits. In this verse, *‘adl* and *iḥsān* are mentioned in general terms without specifying the object (in contrast to 4:58, for example), implying that justice and kindness are prescribed toward all living creatures—not humans alone. Yet, within the contemporary environmental discourse, scholars of Islam rarely describe plants and animals as having the right to dignity, justice, kindness, etc., even though the Islamic tradition is replete with descriptions of the rights of animals based on numerous *aḥādīth* (see, for example, ‘Izz ad-Dīn ibn ‘Abd as-Salām’s summary as cited by Llewellyn [2003]). Treating living creatures with kindness or compassion is framed more as a duty or responsibility as opposed to a way of actualizing justice and restoring the rights of living creatures that are also members of the moral community.

Justice is perceived as a foundational ethic in society that manifests in restoring things to their proper place and striving for equal treatment by way of granting people their due rights (Ouis, 1998; Askari & Mirakhor, 2020). Within an environmental context, scholars of Islam usually discuss justice in anthropocentric terms using an economic framework to emphasize the value of ensuring equitable distribution and access to natural resources or ecosystem services (Izzi Dien, 2000;

Khalid, 2017). A just economic system would allow people to benefit from the natural environment without hoarding common resources or violating other people's rights to those same resources (Al-Najjar, 2004). Justice is also framed anthropocentrically when discussing the importance of generational equity in terms of not depriving future generations of their right to benefit from natural resources that may be polluted, damaged or exhausted irreversibly by present generations (Izzi Dien, 2000).

Even though scholars discuss the Islamic conception of justice as it relates to socio-economic inequalities, this principle can be used to further investigate and critique many socio-environmental problems and imbalances resulting from industrial societies exploiting resources from poor countries and regions of the world to advance their own economic growth. One issue is how justice can be imagined or established for people who lose access to their lands, water sources, and forests or who experience internal or external displacement from their homelands due to the degradation and destruction of their ecosystems and means of livelihood. Another is how justice can be actualized for poor factory workers, for example, who slave away under inhumane conditions converting natural resources into clothes, products, or infrastructure for privileged or wealthy people to enjoy in other parts of the world. Yet another question is how to establish an economic system applying the Islamic conception of justice that restores people's dignity, economic rights, the integrity of their natural environments, and their overall quality of life. These issues and questions require greater intellectual scrutiny and contributions from Muslim scholars—as does ecological justice in relation to the

rights of the natural environment itself, and not only with respect to people's utility of its resources.

When justice for the environment is discussed, the arguments critiquing its degradation are often framed in primarily anthropocentric or utilitarian terms, with a focus on how such degradation jeopardizes potential human benefits from the long-term value of particular human endeavors or pursuits, including medicinal or scientific research, education, and recreation (Izzi Dien, 2000). While these may be legitimate concerns, justice needs to be considered more thoroughly from the vantage point of living creatures because of their intrinsic value as God's creations that glorify and praise Him. In addition, as Llewellyn argues, every species needs to be conserved because of its intrinsic value as "a sign and wonder, and a unique and irreplaceable manifestation of His glory" (Llewellyn, 2003, p. 230). Scholars can interrogate how anthropogenic activities resulting in air, soil and water pollution, for example, habitat fragmentation and loss, or climate change and physiological inadaptability to extreme environments would infringe upon the rights of countless organisms and species to live, thrive, worship God, and fulfill the roles for which they were created. They can also address more extensively how the Islamic understanding of justice applies theoretically and pragmatically to endangered species and realities such as biodiversity loss and mass extinctions, particularly when the environmental damages or climatic changes affecting living communities approach irreversibility and permanence. Since environmental justice is an intersectional and global struggle, any discourse on justice from an Islamic perspective requires balancing between its social and ecological dimensions if the

aim is to create a viable framework for producing true equilibrium and harmony within and between (human and non-human) communities throughout the world. For a discussion of the principle of justice and the intersectionality of environmental and social justice in the Qatari context, see sections 4.3 and 6.3.

Unlike the principle of justice, kindness or beneficence (*iḥsān*) is discussed in the Islamic environmental literature more often in relation to nature and non-human living creatures. It is noted that *iḥsān* encompasses everything said or done with compassion and generosity that brings about benefit and prevents harm (Al-Qaradawi, 2001).³⁴ This value is also mentioned directly in reference to animals in a *ḥadīth* in which Muhammad reportedly stated that God prescribed *iḥsān* (defined here as excellence) in everything, even in slaughtering an animal [for legally valid reasons] so as to relieve it of suffering (Izzi Dien, 2000; Muslim, #1955). Scholars stress the importance of showing respect and kindness toward all inanimate creations and sentient beings—not only in their death, but also during their lifetime (Al-Qaradawi, 2001; Ramadan, 2009; Al-Najjar, 2004). Numerous examples are cited from the *ḥadīth* literature to demonstrate how Muhammad exemplified and taught this lesson to his companions and followers. One of the most oft-mentioned *aḥādīth* (reported by Bukhari and Muslim) is that of a thirsty man who, after quenching his thirst from a well in hot weather, noticed a dog panting and licking mud out of thirst. He said to himself: “this dog is as thirsty as I was” and descended into the well again, filled his shoe with water, climbed up the well and gave the water to the dog (Ba Kader et al., 1983). According to the *ḥadīth*, God was

³⁴ Ḥadīth related by Muslim.

appreciative of his act and forgave his sins. When Muhammad's companions asked if they receive reward for treating animals well, he replied that reward is granted for every 'moist liver' (i.e., for showing kindness or compassion to every living animal) (Dutton, 1998; Al-Qaradawi, 2001; Khalid, 2017; Ramadan, 2009).

Another *ḥadīth* (related by Abi Dawud) tells the story of Muhammad's companions, who took the chicks of a bird from its nest. When Muhammad saw the mother bird hovering and flapping her wings above the nest in grief, he asked: 'Who has hurt the feelings of this bird by taking her young?' and he ordered them to return the fledglings to their mother (see Al-Qaradawi, 2001). Yet another example is given of a *ḥadīth* (related by Al-Bukhari) in which Muhammad reprimanded a man who sharpened his knife before the animal he was planning to slaughter, asking him: 'do you want to make it die twice?' and questioning why he did not sharpen the knife (out of the animal's sight) before immobilizing it (see Al-Qaradawi, 2001 and Ramadan, 2009). Scholars also illustrate the value of *iḥsān* and accountability before God for how people treat living creatures by mentioning the *ḥadīth* relating that a prostitute was forgiven and granted heaven merely for saving the life of a thirsty dog. Conversely, another woman was damned to hell for imprisoning a cat (literally tying it and not releasing it to find food) and starving it to death (Ba Kader et al., 1983; See Gai Eaton, 1998; Al-Qaradawi, 2001; Haneef, 2002; and Al-Najjar, 2004). Scholars emphasize that this level of kindness, compassion and gentleness (*rifq*) conveyed in these prophetic traditions exhibits strength of character, not weakness, and embodies the highest of Islamic virtues that the Divine Way (*sharī'a*) aims to achieve (Al-Najjar, 2004; Kamali, 2015; Ramadan, 2009). See sections 4.2, 6.2, and

7.3 for discussions on disparities between these Islamic values and the treatment of the natural environment and animals within Qatar.

Gentleness (*rifq*) and mercy (*rahma*) are also incentivized and framed as noble virtues in several *aḥadīth*. It is reported that Muhammad said: “Gentleness is not found in anything except that it beautifies it, and it is not removed from anything except that it tarnishes it” (Related by Muslim). Another *ḥadīth* with multiple narrations states: “The merciful are shown compassion by the Most-Merciful. Show mercy to those on earth and the One in the heavens will show you mercy” (Related by Abi Dawud & Al-Tirmidhi). Since the Qur’an compares other living communities to human communities (6:38), some scholars (e.g., Llewellyn, 2003) demonstrate how ethical qualities such as mercy and compassion would also extend to other living communities. Some of these prophetic narrations and meanings promoting compassion, gentleness, and mercy with God’s creation feature in environmentalist discourses in Qatar while discussing the role of Islamic ethical values in environmentalism (see, for example, sections 4.2 and 6.3).

Iḥsān also has a charitable dimension that manifests in acts that continue to benefit the natural world and living creatures throughout the cycles of life and across the seasons (Izzi Dien, 2000). Several *aḥadīth*, for example, describe planting trees – from which birds, animals or people can eat their fruits [even if they are stolen] – as acts of charity (Al-Qaradawi, 2001; Khalid, 2017; Al-Najjar, 2008). A person, thus, continues receiving reward for the millions of birds, animals and people who benefit from this tree—not to mention for contributing to all the countless ecological and climatic benefits gained from trees, including shade, cooling

effects, soil erosion control, carbon sequestration, etc. Planting trees reflects so much ecological wisdom and foresight from an Islamic perspective that a *ḥadīth* encourages planting a seedling (if a person is holding one) even when Judgment Day is imminent and the natural environment is under the threat of destruction (Al-Najjar, 2008). The value of planting itself as a devotional act of worship is implied from this *ḥadīth*, even if no one will eat the fruits of the planted tree. See section 7.3 for a discussion of the importance of spiritually mindful tree-planting in Qatar.

While many scholars have explained Islamic teachings on treating living creatures with respect and kindness, *iḥsān* can be further utilized as a framework (alongside the principles of *ʿadl*, *rahma*, and *rifq*) to investigate contemporary challenges related to animal treatment, particularly for cases in which many animals suffer under cruel and confined conditions in many modern industrial factory farms (Llewellyn, 2003; Ramadan, 2009). This issue requires framing objectives around maximizing the physical, emotional, and psychological wellbeing of living creatures as opposed to maximizing profits and yields in order to satisfy the high global demand for meat, poultry, and other animal products. Another challenge is how to optimize the well-being of plants and animals in urban environments marked by heavy noise and light pollution affecting the fecundity and reproductive fitness of some animals (e.g., birds), as well as ever-encroaching urban sprawl and roads that cause numerous problems, including habitat fragmentation, isolation, and displacement – if not death – of many (mobile) organisms.

Contemporary challenges surrounding the marine environment (as in Qatar [sections 5.2 and 5.3]) also require much greater attention in the Islamic

environmental literature. Scholars can use *iḥsān* and *‘adl* along with other ethical principles and maxims to examine the myriad problems associated with anthropogenic activities affecting marine life, particularly when they create extremely stressful conditions characterized by hyper-saline, acidifying waters, for example, further concentrated with chemical pollutants such as hydrocarbons and heavy metals, that push many marine organisms to their physiological limits and threaten their physiological health and viability. The Islamic environmental discourse on justice, kindness and respect toward living creatures can be enriched not only with its application to such contemporary realities, but also with its articulation of a framework for how to conceive of providing a good life (*ḥayā tayyiba*) for living communities that safeguards their homes and habitats, and actualizes their right to exist, procreate, thrive, and travel together freely through the earth, skies and seas following the paths that God set out for them (Qur’an, 16:69).

As with the principle of justice (*‘adl*), moderation (*iqtisād*) is often discussed within an economic framework in relation to spending of wealth as the phrase *iqtisād* also means economics in Arabic. Literally, *iqtisād* refers to a middle path or position between the two extremes of excess or extravagance on one hand and negligence or stinginess on the other (Al-Najjar, 2008; Kamali, 2015). In economics, moderation lies between squandering wealth or overinvesting at one end of the spectrum and spending insufficiently or under-investing to the detriment of one’s physical or social well-being (or one’s family’s) at the other end (Kamali, 2015). As applied to socio-environmental relations, the principle of *iqtisād* has also been used

to promote a balanced approach in using natural resources, particularly non-renewable ones, whereby people can benefit from these resources as needed without exploiting or depleting them for present and future generations (Ouis, 1998; Al-Najjar, 2004). Moderation in using natural resources reflects respect for the natural balance, exact measure and precision by which God distributes and proportions provisions (Qur'an, 42:27).

Scholars illustrate how the Sunnah promotes moderation, even when using water for ablution in order to complete a required devotional act such as prayer. According to several *aḥādīth*, Muhammad would use very small quantities of water for performing ablution and would only wash certain body parts (i.e., hands, face and feet) three times without exceeding that amount—except for valid reasons (Al-Najjar, 2004; Kamali, 2015). Although it is not authenticated, one of the *aḥādīth* scholars cite very frequently to demonstrate the prophetic admonition against wastefulness and the importance of using water moderately is the one in which Muhammad reportedly passed by Sa‘d ibn Abī Waqqās while he was performing ablution and asked him (in one narration): “What is this waste O Sa‘d”? Sa‘d replied: “Can there be wastefulness, even in making ablution?” Muhammad answered: “Yes, even if you are on the bank of a flowing river” (Llewellyn, 2003; Al-Najjar, 2004; Khalid, 2017).³⁵ Scholars point out that wastefulness is prohibited, according to this *ḥadīth*, even when resources are abundant and plentiful and when excess use does not apparently harm living creatures, pollute nature, or lead to any environmental degradation (Özdemir, 2003; Llewellyn, 2003; Najjar, 2004, 2008). Moreover, even

³⁵ Related by Ibn Mājah and Aḥmad ibn Ḥanbal.

though water is valued in Islamic teachings for its role in spiritual and physical purification, this *ḥadīth* is used to highlight that water, as well as other elements, should not be viewed simply as a means to achieve spiritual refinement and growth, but that using these elements with respect and moderation counts as one of the goals in the journey toward God and inherently represents a type of spiritual discipline or practice and ascension in and of itself (Ramadan, 2009).

Moderation with respect to clothing, eating and drinking is also discussed in the Islamic environmental literature based on the Qur’anic directive to dress beautifully when going to the mosque along with the explicit command to avoid wastefulness (7:31; Al-Qaradawi, 2001). The natural limit in relation to dress is described as the point at which one is able to conceal his/her body (including private parts) with a reasonable degree of adornment (*zīna*), but without any excess, vanity or self-aggrandizement (Al-Najjar, 2004; Kamali, 2015). The Qur’anic term for wastefulness is *isrāf*, which – in relation to food – can occur both through gluttony or overconsumption and through wasting or throwing away food (Al-Najjar, 2004).³⁶ Al-Tabari states that even though satiety is permissible, whatever amount exceeds that limit is considered waste (*sarf*).³⁷ This natural limit is described as the amount (and quality) of food by which one is able to protect and

³⁶ See Kamali (2015) for a detailed technical distinction between the Qur’anic terms *isrāf* and *tabdhīr*. Kamali uses *isrāf* to refer to wastefulness and extravagance in the realm of the permissible (e.g., food, drink, clothing), while describing *tabdhīr* as spending on that which is impermissible (e.g., drugs, gambling, etc.). Yet, according to Al-Rāghib al-Isfahānī (as cited by Kamali, 2015), *tabdhīr* is a specific kind of *isrāf* and applies to excess in the material realm (e.g., overconsumption of food or overspending from one’s wealth) while *isrāf* is considered the broader concept of transgressing the natural limits in the non-material realm, whether in behaviors, emotions, or social/cultural traits. Kamali explains that the profligate (*mubadhhirūn*) are referred to as the “brethren of the devil” in the Qur’an (17:27) because extravagance leads to depriving others and limiting their right and ability to access certain resources.

³⁷ See Ibn Ḥajar Al-‘Asqalānī’s *Fatḥ Al-Bārī* (2001, vol. 9, p. 438).

maintain a healthy body (Al-Najjar, 2004). Overeating is highly discouraged and considered blameworthy according to many prophetic narrations. One of these *aḥādīth* states: “No human fills a vessel worse than his stomach. Sufficient for the son of Adam are some morsels to keep his back straight; but if he must (eat more), then (let it be) one third for food, one third for drink, and one third for air” (Al-Tirmidhi). A suitable amount of food, according to Ibn Ḥajar Al-‘Asqalānī, is that which enables a person to worship God without being distracted by heaviness, laziness, or consequent sleep that prevents one from fulfilling his/her obligatory devotional practices.³⁸ The spiritual and physical detriments (*mafāsīd*) that can result from gluttonous eating shift overindulgence from the category of detestability or reprehensibility to that of prohibition.³⁹

Although not addressed nearly enough, some scholars and Muslim intellectuals critique the issue of food waste and overconsumption in the Muslim world in the light of Islamic principles and values. It is argued that lack of moderation and increased consumption, particularly during the month of Ramadan, betray the ethical goals of Islam in general and fasting in particular, which aim to elevate worshipers’ spiritual state and consciousness (Ramadan, 2009). Rather than being a month of spiritual awakening, contemplation, and qualitative development in which Muslims reconnect with God and the higher purpose of Islam’s message, the month is overtaken by an imperialist economic logic that encourages increased quantitative growth and material accumulation (Ramadan, 2009). Wastefulness and indulgence in worldly pleasures through excessive consumption

³⁸ Ibid.

³⁹ Ibid.

of natural resources are also critiqued in general as transgressing the limits of justice and contributing to corruption on earth as the Qur'an refers to those who waste as agents of corruption (26:151-152; Al-Najjar, 2008; Kamali, 2015). Asceticism (*zuhd*)—at the private, public and structural levels—has also been suggested as a form of spiritual resistance against many of the ills arising from excessive consumption and wastefulness (Webb, 2018a, 2018b).

In addition to discussing how lack of moderation and overconsumption causes physical and financial harm for human communities and exacerbates socio-economic disparities between the rich and poor, scholars can contribute more studies to elucidating how extravagance in numerous areas (e.g., food consumption and waste, water and energy use, purchasing and discarding clothing, erecting lavish buildings, etc.) harms the natural environment and causes deleterious consequences for ecosystems and living communities throughout the world. More emphasis needs to be placed on the interconnectedness of human communities with other living creatures by demonstrating the repercussions and tangible effects of anthropogenic activities on living communities and their natural surroundings. Preparing and consuming less food, for example, can be considered not only as an ethical practice reflecting awareness of and sensitivity toward hungry people around the world, but that also assists in preserving the natural resources needed to grow, package, and transport food while also decreasing greenhouse gas emissions by preventing food and organic waste from ending up in landfills. Practicing moderation in purchasing clothes, for example, can be discussed not only as a way to alleviate the pressures and demands on poor communities producing these

clothes in developing countries, but also in the context of reducing water pollution and consumption, greenhouse gas emissions, and minimizing soil degradation and destruction of rainforests. Framing these ecologically conscious practices as ethical imperatives in line with Qur'anic values and prophetic principles advocating justice, benevolence, gentleness, mercy, and moderation reinforces how inextricably linked people's human behavior is with the divine balance in God's creation and the broader fate, integrity, and resilience of global ecological systems. For discussions of the value of moderation from an Islamic perspective and the detriments of wasteful practices in Qatar, see sections 4.1, 4.2, and 7.3.

3.4 Islamic Environmentalism

If Islamic environmental thought constitutes a small segment of the wider body of literature on religious environmentalism, an even smaller subset of this literature attempts to bridge Islamic environmental ideals and teachings with Muslim practice. Muslim scholars have written extensively about the significance of the natural world in Islam and many eco-theologians and environmentalists expand upon abstract Islamic concepts and ethical principles pertaining to people's relationship with the natural world. Yet, relatively little is written on how Islamic environmental ethics and teachings practically influence Muslim environmentalists' outlook and advocacy for the natural environment. This thesis aims to bridge Islamic environmental thought with practice by demonstrating how Islamic ethical values and teachings influence Muslim environmental advocacy in Qatar.

This section seeks to elucidate some of the variegated forms of Islamic environmentalism found in Muslim-majority countries and countries in which

Muslims constitute a minority. Considering the vast cultural and geographic diversity of Muslim communities, as well as the countless differences in regional and local environmental concerns, the goal here is not to provide an exhaustive account of Islamic environmentalism, but to illustrate some of the most prominent modalities through which Muslim individuals, groups, and organizations demonstrate their commitment to promoting more sound relations with the natural world using an Islamic frame of reference.

As aforementioned, environmentalism in this study does not refer to mere personal appreciation for nature or private, individual efforts to adopt more eco-friendly lifestyles. Rather, environmentalism denotes some form of public expression of environmental ideas, values, and convictions that may be coupled with individual or collective activism to achieve certain environmental goals. These goals can range from shaping public attitudes and practices, increasing environmental awareness and education, protesting environmental pollution or degradation, or lobbying legislators to promote more environmentally and socially just policies and laws.

Qualifying environmentalism with the phrase “Islamic” demarcates a specific kind of activism in which Muslims engage in environmental advocacy in the name of Islamic beliefs, principles, and teachings derived from the Qur’an and/or Sunnah. Islamic environmentalism does not apply to people who happen to be Muslim engaging in secular environmental activism solely for the environment’s sake (Foltz, 2003). As aforementioned, Islamic environmentalism refers to the environmental work Muslims do publicly out of a commitment to applying particular Islamic ideals

and/or in order to achieve higher religious ends (e.g., worshiping and pleasing God, safeguarding God's creation, etc.). Three noteworthy forms of Islamic environmentalism, which are relevant to religious environmentalism in Qatar (see sections 7.2 and 8.2), include pedagogical, exemplary, and holistic environmentalism.

3.4.1 Pedagogical Environmentalism

While Muslim intellectuals have contributed to Islamic environmental discourses since the 1960s, grassroots environmental activism in Muslim communities has only recently increased over the last several decades. Since the 1990s, a surge in environmental NGOs appeared throughout the Muslim world and numerous Islamic environmental organizations have also appeared in Europe and North America (Foltz, 2005; Mohamed, 2016; Hancock, 2018). Many Islamic organizations and institutions that address social justice issues have also begun to include environmental programs and campaigns within their range of activities (Hancock, 2018).⁴⁰

One of the primary activities that Islamic environmental groups and Muslim environmentalists partake in is educational programming that seeks to highlight Islamic environmental teachings while informing the broader Muslim community or specific stakeholders about particular environmental issues or problems that they can contribute in some way to resolving (Mangunjaya, 2012; Mohamed, 2014,

⁴⁰ Examples include the British organization Muslim Action for Development and the Environment [MADE], and the U.S.-based Islamic Society of North America, the Muslim American Society, and Zaytuna College.

2016). An example of this kind of activism is found in the work of the U.K.-based organization Islamic Foundation for Ecology and Environmental Sciences (IFEES), which produces eco-Islamic literature and engages in numerous initiatives, including mosque-greening and tree-planting projects that seek to translate Islamic environmental ethics into action. Fazlun Khalid, the organization's founder and director, is one of the most prominent Muslim environmentalists who has not only written about environmental issues from an Islamic perspective for the last few decades, but who also conducts educational workshops in different regions throughout the world, and engages with local Muslim communities to address practical environmental issues (Foltz, 2005; Johnston, 2012).

As part of the Misali Islamic Environmental Ethics Project, a series of these intensive workshops took place in 1999-2000 off the coast of Tanzania in the archipelago of Zanzibar, where the population is predominantly Muslim. Fishing in the Misali Island Marine Conservation Area supports the livelihood of people living in the island of Pemba, but due to depleted fish stocks from overfishing by international trawlers using advanced fishing technology, the local fishermen desperately turned to dynamiting coral reefs to maintain their fish supply (Khalid, 2017). The intensive educational workshops, which took place over a period of thirteen months, aimed to explore themes such as responsibility, conservation, stewardship, and moderation through a Qur'anic lens, with the goal of implementing an Islamic conservation ethic to protect the island's natural resources. The workshops were attended by local fishermen, Qur'an school teachers, religious leaders, as well as government officials from the Ministry of Agriculture, Livestock

and Natural Resources. After the training program, it was reported that the fishermen ceased dynamiting the coral reefs “almost immediately” (Khalid, 2017, p. 141). This success is attributed to the efficacy of using an Islamic approach to conservation compared to conventional approaches that had failed in previous years (Khalid, 2017). Educational programs such as the Misali Project illustrate clearly how Muslim environmentalists often use Islamic teachings as an educational tool to instill spiritual and ethical values, and encourage Muslims to reform their behavior in alignment with practical conservation goals. The Qur’anic Botanic Garden in Qatar exhibits this form of pedagogical environmentalism. For an explanation of some of this institution’s educational goals and initiatives, see section 7.2.

3.4.2 Exemplary Environmentalism

While some Islamic groups and institutions adopt an overwhelmingly pedagogical approach to relaying Islamic ecological principles and norms, others seek to inspire Muslims to embrace more eco-friendly modes of living mainly through leading by example. These individuals, who may not even consider themselves “environmentalists”, appear to have internalized an Islamic environmental ethic that exudes almost effortlessly in their day-to-day living, writings and personal narratives, as well as in their social and environmental initiatives. An example of this practical approach is evident in the water-related projects of Ayman Ahwal, a Muslim convert and spiritually oriented environmental advocate who shares his account of living in Malaysia and seeking to escape urban life by moving into a house in the forest near a flowing river. Although the Malay

were Muslims, Ahwal soon discovered that some of the local villagers were accustomed to relieving themselves in this river—which he intended to use for drinking water—out of either misunderstanding or not knowing proper Islamic practice. Notably, it was not the indigenous villagers who were polluting the river water with their human waste, as they were known to respect nature and honor the valuable gift of water (Ahwal, 2005).

Ahwal believed that an action-oriented approach would be more effective (and respectful to the Malay culture) than seeking to correct them verbally. He proceeded to single-handedly pump water from the river, build a dam across part of it, erect a twenty-foot water tower, design a fishpond, and establish a spectacular display of fountains and waterfalls without wasting any water. These activities drew the attention of the villagers – to whom Ahwal made clear that he was drinking the river water (which he first purified out of precaution) – resulting in the villagers shying away from using the river as a repository for their bodily fluids (Ahwal, 2005).

Ahwal also sought to clean the river upstream, where city dwellers who came to picnic in the forest threw their garbage, including dirty diapers. His activities slowly began inspiring young Malays, who not only came to enjoy the garden he designed, but who also sought his advice on how to contribute to cleaning another riverbank. Ahwal took this opportunity to teach the young boys about respecting water as a “precious gift from Allah” (2017, p. 119), and as the young men spread Ahwal’s message, he amassed a larger following of supporters that made older villagers and leaders view Ahwal as a political threat. Although the younger

generation began feeling more appreciated about their role in society – despite government officials intervening and broadcasting official messages about keeping the river free of human waste – the political tensions that ensued from Ahwal’s influence on the young Malays made him consider leaving the village. Nevertheless, he was pleased to have planted the seeds for the younger generation to create a cleaner and brighter future for themselves (Ahwal, 2017).

Ahwal’s example reflects a distinct form of Islamic environmentalism that seeks to mobilize Muslims to reform their behaviors not so much by preaching Islamic eco-theology or ethical principles through religious sermons, formal presentations, or academic trainings (although these methods are not unimportant), but by personally modeling eco-friendly living and practically demonstrating how to live in harmony and balance with one’s surrounding natural environment. In Ahwal’s case, his activities had such a tangible impact on the younger generation’s attitudes and villagers’ actions that he was perceived as challenging the social order and local power dynamics that were hitherto unquestioned. Although Ahwal intended to exhibit sensitivity toward the Malays’ cultural traditions and social norms, his position as a non-indigenous, White British man may have exacerbated the Malay villagers’ frustration with his social and political influence.

Even though Ahwal shared an Islamic worldview with the Malay folks and sought to reconnect his co-religionists with Islamic teachings, his unwelcomed disturbance of the status quo reveals how environmental advocacy in a Muslim society requires more than respecting people’s cultures and rootedness in the Islamic tradition. Power relations between leaders and laypeople, and between the

young and old can also influence environmentalists' success in establishing or reviving ecologically sound practices throughout all segments of society. In addition, the extent to which indigenous people are empowered to spearhead environmental initiatives can influence environmentalists' ability to create long-lasting socio-environmental reforms. Unlike non-indigenous environmentalists who may be perceived as outsiders imposing "Western" ideologies or foreign practices – as has occurred in some Muslim-majority countries (Foltz, 2005, p. xii) – indigenous people have the status of being insiders equipped with the cultural tools that enable them to appeal to shared cultural histories and traditions so they can instill more deeply rooted attitudinal and behavioral changes for generations to come. Although not explicitly rooted in religion, the beach cleanups organized by the Doha Environmental Actions Project (DEAP) represent this form of exemplary environmentalism (see section 3.4.2). For a discussion of the potential value of exemplary environmentalism in Qatar, particularly from royal elites, see section 8.2.

3.4.3 Holistic Environmentalism

Another form of Islamic environmentalism adopts a multi-faceted approach to environmental education, advocacy, and reform. Muslim environmentalists in this category not only draw on their knowledge of Islamic environmental ethics as well as sustainable indigenous traditions from their ancestral heritage, but also on their understanding of historical, political, and economic realities contributing to global environmental crises, such as climate change, and many social and environmental injustices. Equipped with spiritual conviction and a strong sense of purpose, these individuals are compelled to engage in a (publicized) personal struggle to 1)

transform their lifestyles in the light of their religious and worldly knowledge, 2) educate and inspire others (particularly Muslims) to join their struggle, and 3) influence environmental and economic policies and practices to create more peaceful and equitable conditions for people and all living communities.

An example of this holistic and visionary form of Islamic environmentalism is found in the life and work of Mona Bennani, a young woman of Moroccan descent residing in the U.S. (at the time of this writing). Bennani's academic background is in Public Administration as well as Global Affairs, with a focus on environmental policy building. In multiple interviews, community forums, and online talks, Bennani describes her journey as starting with her family's political activism and her protesting of the Iraq war as a child. After researching oil contracts after the Iraq war, her perception of oil (and fossil fuels) changed so drastically that she would seek forgiveness from God (by saying *astaghfiru'Allah*) every time she rode in the car with her parents. Her knowledge of the role of oil in driving the Iraq war led Bennani to consider using oil a religious sin, for which she subsequently sought God's forgiveness since she could not avoid relying on it at the time. She began searching for alternatives for all the products she knew were made using oil, including plastics, and committed to a zero-waste challenge during the month of Ramadan. She explains that the habits she built then have persisted for over ten years (Olive Community Services, 2021; Webb, 2018b).

As part of a talk organized by the California-based organization Olive Community Services, Bennani gave a virtual tour of her family house where she began by displaying her garden with over twenty fruit trees and describing the

benefits of mulching and, later, composting. She also presented numerous items in her kitchen, bedroom, and bathroom that are made from (or packaged in) natural or sustainable materials (e.g., a luffa, olive oil soap bar, tagine, bamboo toothbrush, *miswāk*, and silk floss);⁴¹ or repurposed from older items (e.g., a piece of an old shirt turned into a dishcloth and a baby toy made from t-shirts); or used items/hand-me downs (e.g., clothes, reusable diapers, and baskets). She guided her viewers to the website of the Art and Wilderness Institute (for which she worked as a Sustainability Coordinator at the time), where she included a list of bulk stores in Orange County that offer refills for many products.

During her tour, Bennani also mentioned the value of seasonal eating as something her ancestors would do, and which – along with making salads using vegetables planted in her own garden – decreased the use of fossil fuels in packaging and transporting foods. When Bennani came across an empty chocolate bar wrapper on the kitchen counter, she took this opportunity to mention the dirty history of chocolate and recommended viewers watch the episode on chocolate in the Netflix series called *Rotten*.⁴² As she unfolded the wrapper to make the inside text visible to viewers, she explained that her brand of choice (Tony’s Chokolonly) does not use child labor and is the only brand from which people should buy their chocolate.

A prominent theme in Bennani’s reflections is the value of her ancestral and cultural heritage. She previously conducted research on sustainable living in

⁴¹ Bennani explains that the *miswāk* is the original toothbrush recommended in the Sunnah, and that it is a prophetic tradition to use when one makes ablution (before every prayer).

⁴² This episode (called Bitter Chocolate) exposes the poverty and exploitation of West African cocoa farm workers in Ghana and the Ivory Coast, while unveiling the enormous power and wealth of multinational cocoa trading companies operating invisibly in the chocolate supply chain. The episode reports that the chocolate industry is estimated to make over \$100 billion per year, while most cocoa farmers make less than \$1 per day.

Morocco, where she searched for indigenous alternatives to many of the modern products made and packaged unsustainably. During her virtual tour, she showcased multiple things she brought back from Morocco, including a container filled with olive oil rinds used to make soap; an absorbent shampoo from a valley in Marrakesh (that historically had volcanic ash) which her grandmother made on her own roof; an herb used as a toothpick; and a comb made from the horn of a goat slaughtered for a religious occasion. Towards the end of her tour, she conducted a brief in-person interview with her grandmother, who was in her nineties and who spoke Arabic in the Moroccan dialect. Her grandmother reflected on how Allah had provided everything they needed. Bennani noted that although they did not have refrigerators—which Bennani noted contribute to greenhouse gas emissions—they would make whatever they needed in the village together. Bennani’s grandmother also recalled a tradition in Morocco in which they would gather every Friday with their neighbors to eat couscous together. Bennani ended the interview by stressing the value of this social practice and of knowing your neighbors, which her research revealed increases people’s chances of surviving a climate crisis.

Islamic concepts play a major role in Bennani’s understanding of her responsibility as a human being and her drive to make ethically conscious decisions and choices. Based on her reading of the Qur’an, Bennani views people’s role on the planet as stewards (*khulafā’*), which she considers an honorary station that empowers people to take care of everything on earth and keep everything, including the earth’s ecosystems, in balance. She embraces her identity as a *khalīfa* so clearly and openly that she named her Instagram page “journeyofakhalifah” and posts there

regularly on ecological issues from a spiritual and cultural point of view. According to Bennani, God reveals in the Qur'an how everything is in balance, and He tells people not to exceed the limits. She makes a connection between contemporary scientific findings on people pushing planetary boundaries and the Qur'anic prohibition against exceeding the limits.

Bennani roots her discourse in the Islamic and prophetic tradition through numerous other concepts and ethical values, including gratitude, mindfulness of God (*taqwā*), sincerity, gentleness, humility, moderation, asceticism (*zuhd*), and struggle or *jihad* (Bennani, 2021; Olive Community Services, 2021). The essence of sustainable living for Bennani is showing gratitude for Allah's gifts by being conscious of our choices. She considers using hand-me-down clothes, for example, as a way of giving garments life "over and over again" and demonstrates gratitude for the cotton, plastic and labor it took to produce those garments as well as the pain and hardship people endured to make them (Olive Community Services, 2021). In explaining her rationale for living sustainably, Bennani demonstrates a balanced sensitivity for the health and wellbeing of people and ecosystems, of which she believes humans are a part. She questions the importance of wealth and convenience as humanity is confronted with the displacement of entire island nations and worsening frequency and severity of climate-related disasters such as hurricanes and fires. At the same time, she reflects on the spiritual consequences of her actions after her death, wondering if the earth enveloping her will curse her or be content with her if the plastic bag she throws away (hypothetically) rots in a landfill, and if the continued release of methane gas from this bag – that contributes

to climate change – will continue accumulating sins for her and affect her scale of deeds on Judgment Day (Webb, 2018b).

Part of Bennani’s motivation for living sustainably is her struggle against a throwaway culture and linear economy in which finite resources are extracted (or forests destroyed) to create single-use products (e.g., paper towels or plastic cutlery) that people discard after using only once. Bennani criticizes this economy for being historically rooted in and propagated by colonialist and western imperialism, and for its supremacist approach and exploitative treatment of both people and natural resources. Wealthy corporations in this economy use large marketing teams to promote their products (e.g., shampoos, conditioners, etc.) and convince people of their need. These tactics enable a linear economy to thrive on “consumers” who are constantly consuming and wasting irresponsibly, irrespective of the disastrous human and planetary consequences (Webb, 2018b; Olive Community Services, 2021). As an act of resistance, and to preserve the intrinsic balance and resilience of ecosystems, Bennani consciously seeks to extend the life of any item she uses through sustainable practices such as reusing, repurposing, or returning items (e.g., milk bottles) for refills at bulk stores. These practices contribute to the creation of a circular economy or regenerative economy, as indigenous people call it, which is the kind of economic model Bennani seeks to foster with more like-minded people, by God’s will (Webb, 2018b; Olive Community Services, 2021).

Bennani’s environmental consciousness goes beyond the level of making personal change and educating and inspiring Muslims and others to create deep

transformations in their environmental choices and lifestyles. She is also a vocal activist who protests injustices against indigenous communities and stands in solidarity with them. She traveled to Standing Rock in the United States, for example, to protest the Dakota Access Pipeline, which posed a potential threat to the region's water and the tribe's sacred burial grounds and historic cultural sites (Webb, 2018b). Bennani has also been working in a professional capacity to research environmental and humanitarian conditions for multiple non-governmental organizations. She traveled to Iraq, where she witnessed the effects of oil extraction by U.S. companies in causing desertification and climate change, and after researching the humanitarian conditions in multiple other countries as well (including Syria, Yemen, and Lebanon), she wrote policy briefs as part of her work with the International Rescue Committee (Webb, 2018b). Bennani also served as a water security consultant for EcoPeace Middle East to develop an environmental peace-building program in the Kurdistan region in Iraq (Art and Wilderness Institute, 2021).

Along with these research projects and environmental initiatives, Bennani's lifestyle changes, social activism, and broader vision for a circular and regenerative economy reflect the intersectionality of her struggle to promote the dignity and resilience of human communities in the face of climate change and powerful global market forces that exploit and displace people, deplete natural resources, and destroy balanced ecosystems for the sake of endless profit. Bennani is compelled to engage in this religiously driven reform through her God-given role as a *khalīfa*, and she aspires for other Muslims to honor this same responsibility. Islamic

environmentalism of this nature not only bridges Islamic environmental theory with practice on a deeply personal and collective level, but also adopts a holistic approach to identifying the root causes of environmental problems and creating sustainable alternatives to the hegemonic global order and economic systems that produce social and environmental inequities. Although my research did not reveal any examples of successful holistic environmentalism in Qatar, see section 8.2 for a discussion of the powerful potential of this form of environmentalism to ignite a sustainable and religiously rooted, indigenous environmental movement in Qatar.

CHAPTER 4: ENVIRONMENTALISM IN QATAR: SOCIAL, CULTURAL & RELIGIOUS CHALLENGES

This chapter and the following chapter highlight perspectives of non-state actors primarily engaged in environmental or ecological research, education or advocacy in the state of Qatar. The findings reported in these two chapters are based on a subset of interviews conducted during field research in Doha in 2019 with environmental scientists, academics, as well as leaders or representatives of grassroots environmental groups. At the time of my field research, some interviewees were employed at academic or environmental research institutions funded by the state of Qatar, but the views they shared in these interviews are entirely their own as non-state actors and do not represent the views of any ministries or government agencies. Participants included Qataris and GCC nationals as well as Arab and non-Arab expatriates working in Qatar on a range of issues, including climate change, renewable energy, waste management, resource conservation, sustainable development, and the marine environment as well as applied Islamic ethics.

Informants were asked a range of questions covering their academic background or expertise, their role in the group or institution with which they were affiliated (if applicable), as well as personal drivers, motivators, and beliefs or values inspiring their work. Interviews also explored participants' perceptions of the current state of the natural environment in Qatar; the state's environmental discourse, policies and laws; collaborations between government institutions and environmental groups; obstacles hindering environmental sustainability; and

opportunities for improving socio-environmental relations and the overall environmental conditions of the country. Interviewees diverged into numerous tangential topics, which provided more substance to ask follow-up questions and provided deeper insights on the complex interplay between environmental and social challenges in Qatar.

One noteworthy observation is that some of the participants engaged in environmental research or advocacy who were Qatari or GCC nationals were more candid and intrepid than expatriates in sharing critical reflections on current environmental conditions and environmental management in Qatar, even though a few of these participants – who happened to be female – chose not to reveal their identity as a condition for participation in this research. While some of the non-Qatari Arabs and non-Arab expatriates also shared their struggles and frustrations with the current state of affairs, several participants were more inquisitive about why Qatar was chosen for this study and also inquired about the overall objectives of the research. These participants also appeared more careful in phrasing their critiques and did not wish for their views to represent the environmental organizations for which they worked. For this reason, some informants are quoted anonymously in this chapter without including any specific biographical details that may reveal their affiliation with a particular environmental group or academic/environmental institution in Qatar.

After field research, interviews were transcribed, coded and analyzed, leading to numerous themes and patterns emerging from the data. This chapter and the following chapter seek to elucidate some of these key themes and interpret their

meaning within an environmental governance framework that centers the voices of non-state actors in their critique of environmental decision-making and socio-environmental relations in Qatar. It also aims to investigate the gaping rift observed in Qatar – as in many other countries – between religious and cultural ideals and environmental realities and behaviors. In addition, it reveals how sustainability discourses in Qatar (and the broader region) cannot be divorced from both political and social issues, demonstrating some of the ways in which environmental and social justice concerns are inextricably linked. While many of the findings of this research may apply to other Gulf countries due to, for example, shared environmental vulnerabilities, socio-political realities and general cultural and religious identities (e.g., Arab and Islamic), this application cannot be made with confidence as the fieldwork for this research project focused primarily on environmental advocacy in Qatar as it relates specifically to the state’s local population and its particular environmental conditions, institutions, resources and management. Qatar exhibits unique features (Tok et al., 2016) with respect to its cultural and political history, religious and cultural demographics, geography, natural resources, degree of economic diversification, and rapidity of urban development. As such, any comparisons or extension of findings to other Gulf countries would require substantiation through additional field research on ecological issues and environmental advocacy in the broader region.

This chapter focuses on particular social, cultural, and religious challenges that many participants stressed during the interviews. These are categorized as follows: transformation in socio-environmental relations (4.1), disparity between

religious beliefs and practice (4.2), and social and spatial divisions (4.3). These challenges concern particular social realities and environmental behaviors deemed as both incommensurate with creating a mutually beneficial relationship with the natural world and with achieving socially just and environmentally sustainable development in Qatar.

While many environmentalists hold the government and petroleum industry responsible for much of the environmental degradation in Qatar (see chapter 5), some activists also believe certain social realities and cultural norms or practices exacerbate environmental threats and hinder the spread of environmental consciousness in Qatar and the broader region. Many of these challenges arguably stem from socio-environmental disconnects that emerged following the influx of wealth and lifestyle transformation after the discovery of oil and gas and rapid urbanization of Qatar. In addition to social and cultural challenges (which will be discussed below), some environmentalists also believe the lack of religious environmental education and gaping rift between Muslims' religious beliefs or practices on one hand and their environmental behaviors on the other hinder the development of a widespread environmental ethic inspired by indigenous religious teachings and values. Moreover, some environmental advocates believe certain socio-economic divisions and disparities within society have intensified social and environmental inequities while also impeding a more holistic, socially conscious environmental movement from taking root in the country. This section will elaborate on some of these challenges as they relate to environmental thought and

practice within Qatari society, and also as they relate to the ongoing struggle to actualize social and environmental justice.

4.1 Transformation in Socio-environmental Relations

One of the major socio-environmental challenges some environmentalists addressed during my field research concerns the drastic and relatively rapid change in sources of livelihood and lifestyles that occurred within the span of one generation. Before the 1950s, the region had a more nomadic lifestyle where Bedouins lived in the desert herding animals, and the economy and livelihood of settling tribes (*ḥaḍar*) residing on the coasts depended on activities like fishing, pearl diving, and pearl trade. Groundwater was scarce, but there was relatively more awareness of its limited quantity and the vital importance of its sustainable use. Under these circumstances, people's ability to eat and survive was not only dependent on the integrity of their surrounding habitats and ecosystems, but they were arguably more immersed and physically connected to the natural environment upon which they relied on *directly* to live. After the discovery of oil and gas, and Qatar's rapid industrialization enabled by massive fossil fuel exports and revenues, more people began settling in urban environments and a new generation emerged that was born and raised almost entirely within a built environment. As such, some Qatari environmentalists assert that much of the younger generation living through these social and economic changes has become physically and spatially disconnected from the region's flora, fauna, and marine life since their livelihood no longer depends on an intimate connection with the natural environment and its finite resources.

This transformation in lifestyle produces striking differences between the younger and older generations, the latter of which had experienced extreme poverty in their younger years and struggled to survive in the harsh environmental and climatic conditions of the region. In comparison to the present younger generation, multiple informants described the older generation as knowing how to live within their means due to experiencing financial difficulties and tribulations; how to demonstrate respect toward the natural environment; and how to value their sources of sustenance as a blessing. In contrast, the younger generation was – for the most part – born into extreme wealth and presently faces an illusion of abundance of water and unlimited energy supplies to fuel air conditioning, multiple cars in many cases, and comfortable urban living. In addition to younger individuals losing direct contact with natural environments, they also did not witness – and are generally not cognizant of – the loss of a large portion of the country’s natural heritage (e.g., oases, mangroves, etc.). Even though young people may express care for protecting the natural environment through national surveys and verbal communication, for example, their spatial and temporal disconnect from Qatar’s natural environments and lost habitats remains a challenge for inculcating conservationist ethics—especially when this generation no longer depends on these environments directly for survival and may even consider them dispensable.

In addition to these generational and socio-economic differences, many informants argued that the abundance of water and energy that citizens and expatriates of all ages enjoy at present without heeding the existing scarcity and

without facing penalties or any form of accountability for wastage contributes to the squandering of these resources. One sustainability expert and educator remarked:

If you think about that Qatar has the highest water use per capita, the highest energy use per capita in the world, being this small country in a desert environment, you wonder if people actually realize what is happening and where things are coming from. If everybody just knows that if you open the faucet water is coming out, then why question that and nobody seems to think deeper in terms of where it's coming from. We don't have groundwater here. It's all a hundred percent desalination. And so the amount of energy that's being consumed...They are co-located here in Qatar - desalination and energy generation - so desalination actually happens on waste heat from generating electricity, but that's beside the point because it still takes energy to desalinate; and then washing pavement on a daily basis, washing cars on a daily basis - again where people don't question is that a right thing to do.

This same informant also expressed shock at the length of time some of their students take to shower, given how scarce water is in the region. They stated:

I just recently talked to a class of students about their shower time, just to see what could *you* do personally without your parents, without your teachers, without anybody else. What can you do to change behavior? How long do you shower? An hour - and you just have to keep your calm because...South Africa, just last year ran out of water and had the public campaign for showers of two minutes in order to protect it. And so it's not just children, it's not just adults. It's everybody who maybe they know that it's coming from desalination, but again without concept of what it takes to actually make it potable.

Another Qatari environmental scientist argued that people do not care much about Qatar's natural environment and resources because the value of these resources is not reflected in their cost. They argued: "If it's free, it's worthless. Unfortunately, that's what people perceive it as. You can find children opening taps for God knows how long, and *nobody* is going to intervene." They also believed that Qataris, and even more so non-Qatari residents, do not have a stake in the natural environment because they do not have much ownership of any land. This interviewee posited:

You only protect - you only are concerned with things that you believe you have a stake in. If as nationals, and especially residents, you definitely don't have a stake in anything. So that's why I always talk about Qataris. Yes, we're 10 percent, but we're the people that are likely to have influence. So Qataris don't believe that they have a stake in common property. So things like the ocean, the sea, *every* land in Qatar is government-owned land, unless it's your personal private property. So if you go to an area, let's say a beach, you don't think as a Qatari, this is *my* beach, this is our beach. You think this is the government's beach. And so when you throw, let's say, a basic insult to environment, let's say littering - who cares? It's not my area. It's not my backyard.

Some informants considered acts that demonstrate disrespect for the environment, such as littering, to stem from the local culture—irrespective of who owns the land.

Director of the Doha Environmental Actions Project Jose Saucedo commented on the problem of littering and lack of enforcement of littering fines in Qatar:

I don't want to be—I cannot generalize for the Middle East, but I think in this part of the world, we have some...bad habits regarding littering. People have a lot of tendency to just [flings arm to demonstrate throwing trash on the ground]. Not only that, I think it feels or it seems to me like it's socially acceptable. Nobody tells you anything. And we have it in the law, I think it's 500 riyals the fine if you're littering. I tell people if I was in charge of applying that rule, I would be a *multimillionaire* because I'll just be ticket, ticket, ticket, ticket, ticket.

Even if financial penalties were enforced, some informants mentioned that they would not act as sufficient deterrents because the relatively more wealthy in society will not face much hardship in paying these fines. Yet, some believe the mere existence of environmental laws can help create a cultural shift toward greater environmental consciousness.

Multiple interviewees argued that a sense of individual responsibility is not promoted within society even for minor environmental offenses like littering because labor is cheap and the government provides buses filled with workers who

clean up after the locals and residents. Providing this efficient cleaning service, some informants argued, exemplifies how the government appeases people – especially after the Arab Spring – so as to minimize any upset or reasons why locals or residents might “rock the boat”. Yet, the underlying problem according to some environmentalists is not the government providing such an efficient cleaning service. The real challenge lies in the way society and parents make it socially acceptable to litter *because* these cleaning services exist. GCC national and EcoMENA founder Mohammed Khalil explained the disparity between environmental messaging children receive in schools and what they observe in society or learn from their parents:

Then we have government schools, and they’re also starting to go into that direction [toward addressing environmental issues], which is good. It’s slow, but it’s good. Now, all these schools, they preach recycling; but outside the school, it stops. When the kids leave school and they come home, they go to a mall, they go *everywhere*, it’s not there. Worse than that, it’s not just the infrastructure. My son comes to me. I’m a parent. I’m a local guy. I’m an Arab. Let’s be realistic. And he says there’s no recycling, and I say: what the heck are you talking about? We have people cleaning for us. This is the disconnect that we live. If we don’t tackle those, we are going to continue facing this issue because it goes all the way.

Aside from existing reverse incentives and lack of accountability for acts such as littering or wasting water, food or energy, the deeper challenge appears to be changing the pervasive culture, societal values, and norms that can lead to inspiring more environmentally responsible behavior while making it socially unacceptable to trash the environment or squander natural resources. Although government subsidies are believed to decrease people’s respect and appreciation for natural resources because the value of these resources is not represented in their cost,

developing a more conscientious relationship with natural resources can arguably become more deeply rooted and enduring through reviving the historic cultural perception of these entities as finite gifts and precious blessings, provisions, and sources of sustenance—even if the monetary cost presently assigned to them does not reflect their intrinsic or ecological value. Once internal and societal values shift toward deeper understandings of moderation, sustainability and ecological consciousness, people may arguably be more inclined to not only avoid littering, conserve resources in their daily lives, and show gratitude for the blessings they enjoy, but also be moved to join environmental movements that call for safeguarding local habitats and ecosystems from the polluting, extractivist activities of powerful petroleum companies in the region.

4.2 Disparity between Religious Identity & Practice

Environmentalists I interviewed in Qatar shared conflicting views on the role of religion in promoting environmental ethics and environmentally responsible behavior. While some informants considered religion irrelevant due to many Qataris' predominantly cultural relationship with Islam, most environmentalists I interviewed considered the disparity between Muslims' religious beliefs and practices a formidable challenge in reforming environmental behavior in Qatar (and the broader region). Several environmental scientists and educators problematized the way Muslims often exhibit self-congratulatory attitudes, labeling themselves environmentalists simply because they are Muslim—even though their actions do not always reflect Islam's environmental teachings. Speaking from these Muslims' perspective, one sustainability expert stated: "Well, I am Muslim therefore I am an

environmentalist and still throw stuff out of my window.” When I asked how these individuals define “environmentalist”, this informant continued in their words: ‘Well, the Qur’an says I should protect my environment, and therefore because I’m a Muslim, I do.’ This sustainability expert retorted: “but actions speak louder than words, and that’s true not only to Islam. That’s true to Christianity and anybody else. I mean you can look through and any of the religions, you can interpret as protect your environment; and yet we are collectively in a place where we are close to extinction of humankind.”

Multiple informants also discussed how Islamic scripture is replete with ethical values and teachings guiding people’s relationship with the environment, but they observed that religious beliefs and values do not appear to influence people’s character and everyday life—especially when it comes to their daily interactions with nature and local natural resources. Jose Saucedo, Director of the Doha Environmental Actions Project said: “We go to the beach and you can clearly see people were having a picnic; and we’ve seen it, time and time again. People are having a picnic – big group, they finish, they get up – perfect circle with all the trash around them, the coals of the fire they had.” Another informant described an incident he witnessed in Qatar illustrating the disconnect in people’s minds between religious worship and practice:

I was also here in the desert and they have the beach, and I was seeing a guy with his beard like this [long] and his wife with the *niqāb* [face cover]. And they prayed and everything, and when they left, they left all their garbage on the beach and they drove away. I said *subhanAllah* [glory be to God], so this is so pious; and of course you will not hear in the *khutba* [sermon] or, if you read Islamic writings, you will not read about this. So he does not consider that this is part of your *‘ibāda* [worship]. How can you pray and you do the opposite? Because it’s

not the opposite for him; it has nothing to do with religion. In the classical paradigm, this has nothing to do with religion.

GCC national and EcoMENA founder Mohammed Khalil noted a similar disparity between people's worship and lifestyles. He observed:

I think in the MENA region, primarily in the Gulf, we fail to distinguish between what is cultural and what is religious. We pray religiously; we live culturally. If I reflect that on our day-to-day life in other things to do with environment and so on - we don't read what Qur'an says about *al-hifdh 'ala al-ni'ma* [preserving the blessing]. There are prophetic *ḥadīths*, there are *āyāt* that encourage...we *never* read that. Zero. If you ask anyone: tell me an *āyah* that talks about that, no one knows.

Another Qatari environmental scientist and activist explained:

Everything in the Qur'an is all about, as you know, maintaining, respecting your environment. Even *heaven* when it's described, it's described as amazing forests and trees. So there *is* in the literature, in the religious literature, everything is there, whether that's relevant is a completely different [issue]. There's no connection. People aren't making the connection, like I said, even that when I leave my tap on for six hours, the desalination plants are working harder, carbon is being emitted, we're getting hotter. We're actually destroying our ability to be a habitable country, let alone *God* is watching me, I'm wasting water. I think this is *completely* separate...Yes, we may have been taught it, but whether it's relevant is - it's not relevant. It's not connected. Like I said, it's cultural. If you were a religious person or you followed religious principles like Islam, for example, everything in your daily life, every action, every behavior is founded upon your religion. This is not reality. This isn't the current context of Qatar and Qataris, and their relationship with religion. It's not a leverage point.

Even though this participant considered religion irrelevant to Qataris, many informants believed Islamic teachings should play a greater role in influencing Muslims' environmental actions, especially considering the centrality of Islam in the region. Theirry Lesales, Chairman of the Board of the Qatar Natural History Group (QNHG) at the time of this writing observed that, despite the importance of religion

in Qatar and the Gulf, Islamic teachings do not seem to prevent people from destroying natural habitats and killing living creatures wantonly. He stated:

The way for instance religion is very important here, and I understand that. I respect that. And then I realize that for the...and tell me if I'm wrong ... for Muslims, the environment should be above *everything*. Everything. So when you tell me that you're Muslim, you have to live by certain rules, to respect Allah and rules, and then you trash the environment, there is a *huge* contradiction; and I don't understand why raising awareness is not promoted more through religions. I talked to an imam about it. I had a show on Muslims and the environment, and I was surprised that he was quite happy that I invited him on my show to talk about that. He used to listen to my shows also, so he was quite happy to have that perspective...and then he told me even more stuff; a Muslim shouldn't be hunting for pleasure because you shouldn't harm an animal just for your pleasure. You see that *everywhere* here, hunting just for pleasure. Killing birds, shooting birds, for instance - shooting flamingoes?! That doesn't make sense.

Killing animals for sport is clearly prohibited within Islamic law, yet such egregious acts may reflect a lack of religious literacy within the population that would ideally deter people from such behavior. It may also signal a distorted perspective of religion that limits its scope and influence to obligatory acts of worship. Yet, even devotional practices such as prayers, fasting, and religious festivities have arguably become devoid of their spiritual value for many Muslims, and are not always embraced for the purpose of achieving higher religious objectives. One Qatari informant stated: "I think religion in Qatar, and in most - I think around the world, we're following a trend where religion is cultural. It's not religious. And so things like going to Friday prayer, they're going culturally. Things like Eid, it's cultural. Things like Ramadan - Ramadan perhaps it's a more holy, more intensive month of the year." When I commented on the exorbitant amounts of consumption and food waste particularly during this month, they replied: "Exactly, and so the values that

actually exist in the religion aren't translated into everyday life or translated into any action that people make; and so I can come to the conclusion that religion is not associated with people's lifestyles. Religion is cultural.” Mohammed Khalil expressed his frustration particularly with the waste that takes place during Ramadan. He stated:

I always fight in Ramadan, with everybody - because I don't understand this! We're Muslims *alḥamdulillahi rabb al-‘alamīn* [praise be to the Lord of the worlds]. We fast. How come we have more waste in Ramadan? Either our lifestyle is wrong, we overcook, or it's just something is wrong with this formula...It's a holy month for God's sake. Let's sit down and understand what fasting is all about. We don't. We don't even go that far. I had some challenges with my friend. I said: how dare you, you fast all day, you have huge *iftār* [break-fast meal], and at night you go for a buffet *suḥūr* [pre-dawn meal], which you know that's going to be thrown away. So my understanding of fasting is wrong to start with. It takes a lot. I think this is a challenge we have. We have a very strong source to push us, but nothing applied from it, as religion or cultural values.

In addition to some informants attributing the observed wastefulness during Ramadan to a failure to understand fasting's religious and spiritual objectives, some local environmental advocates also identified the distorted understanding of generosity as another cultural challenge exacerbating the problem of food waste. Even though generosity is considered a noble virtue within Islamic teachings and Arab cultures, including Qatari culture, the ways in which people understand and apply this concept appear to contribute to the copious amounts of food waste produced in the region.⁴³ Mohammed Khalil explained that many people slaughter

⁴³ Cultural factors have been identified as some of the key contributors to food waste in the Gulf region (Baig, 2019; Bilali & Hassen, 2020). Some studies also reveal that food waste increases during social and religious occasions (see, for example, Aktas et al., 2018 as cited in Bilali & Hassen, 2020). Qatar's per capita food waste has specifically been identified as one of the top ten in the world (See Bennbaia et al., 2018 as cited in Bilali & Hassen, 2020).

animals (e.g., sheep, goats, etc.) and serve all their meat to guests as a way of demonstrating generosity and hospitality. This practice occurs for large cultural and religious events too, including weddings and funerals. During my interview with Khalil, he shared that he had just attended the funeral of his friend's mother where enormous quantities of food were served. He showed me a picture on his phone of a very large platter of rice and meat, then asked: "You know how many people were sitting on this? Four adults and two kids. This is going to be thrown away." He explained how, due to hygienic reasons, charitable organizations and groups like the local food bank cannot accept donated food that has been touched, which leads to such food being discarded. Although generosity in the form of slaughtering animals for guests and occasions has always existed in Arab societies – even in pre-modern times – Khalil noted that meat and food was not wasted in such copious amounts in the past and did not end up in landfills the way it does today. He affirmed that people ought to be proud of their identity as Muslims, Arabs, or generous people; but, in his eyes, wastefulness for the sake of *appearing* generous represents a grave misunderstanding of the religion.

Whether the problem is littering or overconsumption of water, food and energy, imams and religious authorities arguably have a significant role to play in addressing these social and environmental concerns, and demonstrating to their congregants how their behaviors affect local and regional resources. When I asked informants about the role of imams and religious scholars, one Qatari (female) environmental activist replied rhetorically: "What's their influence? They *have no* role. An imam on a Friday that men go to, what is he talking about? They're not

talking about environmental issues. They're not talking about water consumption. They're not talking about anything of value.”⁴⁴ Other informants concurred that local imams do not address environmental issues in their sermons, and some problematized imams’ lack of environmental literacy as well as the lack of freedom to write their own sermons.

As in many other Muslim countries, religious sermons are overseen and controlled by government agencies. In Qatar, the Ministry of Endowments and Islamic Affairs manages religious sermons, so any individuals or groups seeking to promote environmental messaging through Friday prayers on a nationwide level must communicate and cooperate with this government agency. According to Syeed Mohammed Showkath, the Arab Youth Climate Movement (AYCM) attempted to initiate an ecoliteracy program for imams in Qatar. He explained:

We have a huge challenge. You’re talking about imams, so it’s not very easy. We prepared the whole proposal, and we are trying to reach out to Awqaf [Ministry of Endowments and Islamic Affairs] to train a batch of imams, and asking them to talk about – not just plastic again; we talk about much bigger aspects to understand the signs of God through His creation and what is happening, how are we tampering with its natural cycles and with our excessive consumption and with our greed and lust to grow in terms of it; and it’s been a huge challenge because imams, again, it’s a very religiously conservative society.

Emphasizing the potential efficacy of training imams, he stated: “That’s what we understand, the importance to train those imams to talk about these issues in a non-technical language for them so that they can combine the religious scriptures and at the same time combine the scientific evidence we have about the problems that we

⁴⁴ Even though women have access to mosques and Friday prayers in Qatar, most of those who attend are indeed men who do not hear any environmental messaging from an Islamic perspective.

are facing, and to tell the public this is the situation. That changes a lot of people's opinions." When I asked Showkath about the possible challenges of having imams address certain controversial topics, he explained:

It will be a challenge again. Most of the sermons are heavily regulated, but to begin with we need to start with something harmless not jeopardizing them as well, and we need to tread cautiously and talking about protection of marine biodiversity, terrestrial biodiversity, and we talked about moderating our consumption instead of changing ten phones per year, have one – *isrāf* [waste] haha. Just talk about that one, and slowly we can build the capacity of the imams to think and to position themselves to understand, to tell the public your appetite for changing mobiles every year is killing people in the Democratic Republic of Congo. How you relate those concepts – it's not just affecting here. Your lust for new fashionable clothes or new mobiles is always affecting some poorest communities in Bangladesh or Indonesia or in central parts of Africa, and how to tell that story...how our consumption is affecting the environment in other parts of the world. So, those are the topics we want to touch with the imams, and slowly tell. We don't have to go everywhere attacking fossil fuels. We just need to open up options for solutions, and then it can automatically disrupt the system.

Based on field research and interviews conducted with environmental scientists and advocates in Qatar, it is evident that religious beliefs have the potential to reshape cultural norms and reform religious practices to help advance environmental goals in the region—even if many Muslims appear to adopt an overwhelmingly cultural relationship to their faith. While increasing ecological literacy and religious environmental literacy within the population may not be the most expedient way to reform socio-environmental relations and protect the region's natural environment from increased degradation and destruction, reconciling people's religious beliefs with Islam's ethical and environmental teachings can still be considered a long-term investment for inculcating ecological consciousness rooted in religious and cultural values indigenous to the region.

Rather than religious devotional practices serving as additional mediums for overindulgence and extravagance, Muslims' relationship with these practices can be deeply reformed in ways that restore value to their spiritual, social and ecological dimensions while allowing believers to liberate themselves from perpetuating economistic patterns of accumulation and consumption.

Imams and religious leaders can also make substantial contributions to helping people understand and implement Islam's ecological values and teachings as a means of both gaining nearness to God and aligning individual lifestyles with the spiritual reality of accountability before God in the hereafter. The success of these religious leaders necessitates a heightened level of both religious and ecological literacy – in addition to knowledge of local cultures and socio-economic disparities – that enables them to not only demonstrate how Muslims' lifestyle and consumption choices directly or indirectly impact disadvantaged communities along with local and regional natural resources, but also how Muslims can deeply reform their environmental attitudes and behaviors in ways that revive Islam's broader social and ecological objectives.

For religious authorities to amplify environmental messaging in the region, political authorities must encourage imams to deliver sermons prioritizing environmental issues while granting these imams and religious leaders the freedom to promote religious and cultural values that speak to the most pressing ecological concerns in the region. Rather than being perceived as a potential political threat, collaborative initiatives between religious leaders and environmental groups aiming to increase imams' ecological literacy can be viewed as opportunities for reshaping

the collective consciousness of Muslim locals and residents in line with Islamic ethical values promoting respect and appreciation for the country's natural resources and ecosystems, while also providing religious authorities greater opportunities to make more meaningful, scientifically-informed contributions to environmental discourses in the broader region and worldwide.

4.3 Social & Spatial Divisions

One of the emergent themes from my field research revolves around the complex interplay between environmental and social realities in Qatar. Environmental data is not the only kind of information that appears to be hidden from the public (see section 5.1). According to several informants, there is a deliberate attempt from government-sponsored media to specifically conceal the environmental conditions and quality of life of low-income migrant workers in order to preserve the public image of the country. As with any other society, informants explained how Gulf countries, including Qatar, have an overarching social hierarchy demarcating locals based on certain social traits, including family of origin (e.g., royalty vs. non-royalty) or tribe (e.g., nomadic [*badw* or Bedouin] vs. settling [*ḥaḍar*]), ethnic origin, religious sect, class, and all the nuanced intersectionalities of these traits. A nationalistic and racialized social hierarchy also distinguishes expatriates from one another, with high-skilled White Americans and Europeans holding superior status over Indians and Arabs, for example, and low-skilled migrant workers – mostly from Asian and African countries – occupying the lowest position in the country's social totem pole (Abou El Fadl, 2020).

Some informants acknowledged the country's need for migrant laborers and the heavy reliance on them for its continued development. Yet, they considered many of these laborers marginalized and disadvantaged in comparison to the remainder of the population, which includes not only Qataris, but also other skilled expatriates residing and working in Qatar. One Qatari informant asked rhetorically: "Why do you have compounds specifically for a certain group of people? If you couldn't make it more obvious that these people are marginalized, they're literally right at the furthest coast of Qatar in their own locked down area." When I asked if they consider Qatar a segregated society, they said: "*Of course*. Are you joking? Are you joking? [repeated for emphasis] It's literally the definition of segregation. They *literally* have to be housed in a certain area. How is that different than pre-1960s like U.S.A.? It's not. They have different – well, maybe because of their worker skills – incomes. But they're *definitely* segregated. And *very* intentionally." Not only is this subpopulation physically isolated by way of residential segregation. Many laborers are also socially isolated from the local population, denied access to numerous public places (e.g., parks, shopping malls, etc.), and often treated as physically invisible even while working in urban areas surrounded by nationals and other expatriates. Despite facing various forms of exploitation, discrimination, and health problems due to disproportionate exposure to different environmental harms (e.g., heat stress and air pollution), many migrant workers exhibit self-censorship and a reluctance to complain or expose the reality of their living/working conditions or financial situations out of fear of losing their jobs and being deported back to their home countries. These political and social realities exacerbate injustices and hinder

meaningful connection between subpopulations in Qatar that could potentially unveil and help remedy some of the struggles migrant workers experience while living and working in the country.

Investigating the environmental dimensions of food waste in Qatar during my field research inadvertently exposed some complex social realities in the country. Hifz Al Naema (HA),⁴⁵ the main food bank/charity in Qatar, collects, processes and packages food “surplus” from various donors and distributes it to families or individual laborers in Qatar whom it deems in need. In my interview with Hifz Al Naema’s Executive Manager Ali Al Qahtani, he remarked: “Qatar is not a poor country. Also, laborers, they have their rights and they have their salaries, so it’s not a heavy thing that we find here. It’s a hard thing to find people who are in need.” Al Qahtani explained how HA is dedicated to raising awareness about responsible consumption, promoting charitable values and social solidarity between different social classes, preserving the environment by reducing carbon emissions contributing to climate change, and alleviating pressures on waste management. In explaining who receives food donations and why, he stated:

A lot of infrastructure works and construction works happen in Doha. That means we have about one million plus workers, and mainly those work in construction companies; and they are almost taking a salary of average of how can say, 800 to 1,000 QR, which is *fairly* enough for him, serving them by accommodation *and* food; so, this is a fairly enough for construction laborers in all over the world, if you just compare it to the average basis. So, it’s almost talking about 300 dollars, so not below hundred, it’s 300 dollars, which is worth enough, plus accommodation, plus food. That doesn’t mean when we donate this food or distribute it, they are in need, but they will take it as an extra, sometimes. Sometimes, it’s a higher quality food. Sometimes, if

⁴⁵ In Arabic, Hifz Al Naema literally means preserving or safeguarding the blessing, which is an Islamic concept.

you're attending a wedding, how is that quality of food? It would be very high quality. So, when we distribute this food to those people, they will feel the difference. For sure, we saved that food from wasting and those people are very happy to receive that food.

HA is not the only charitable entity tackling food waste in Qatar under the impression that most migrant workers receive sufficient income; experience food security; and think their charity is merely providing them with additional high quality—or more ethnically representative—food. When I asked Founder and Managing Director of Wa'hab⁴⁶ Wardah Mamukoya if migrant workers experience food insecurity or malnutrition, she responded:

No, I wouldn't say – because if you look into Qatar's laws, it says that companies have to support their workers; so most of them have a central kitchen. We've talked to one of the largest contracting companies, and they were saying that they have a *huge* kitchen, and it's not just – they have different ethnicities. So you might have Nepalese, you might have Indians, you might have Pakistanis, you might have Egyptians. It's a huge area of people, and they cater to different needs. So, it's definitely there. There is a huge push towards making sure that the workers have enough to eat. But one issue is that sometimes, most of them do have – what do you say – different kinds of foods. So it's not catering to one ethnicity. But in some cases there is. So, some people say the most of laborers may be Nepalese, and they like lentil curry at night; but some of the Indians don't eat lentil curry. Not all of them. Some do. Some don't. So, it's basically - it's not that they don't have food. Most of them do. Probably there are, but usually it might be in smaller cases.

Mamukoya also described how providing food to migrant workers gives them an opportunity to utilize their food allowance for other financial needs. She remarked:

But the thing is, when you have smaller contracting companies, what they do is that they say, we'll give you this much food for one month. So, let's say 300 riyals for your food, and accommodation and then the salary. So what these people do is that they have their own kitchen. If we give them surplus food, they could save that 300, put it in their

⁴⁶ In Arabic, Wa'hab literally means a gift, which alludes to food as a gift (*hiba*) from God that can be gifted or given to others.

pockets, send it back to their families. This is where the good thing comes in. So we're going to companies like these, or companies who – some workers might have lost their jobs, mostly families they might have lost their jobs, but they are hopeful that they might get something. So those two to three months, it adds up all the – it's not just food, it's about school, it's about accommodation. So if we help them with food, that's a huge help for them. So it's not about starvation, but food is something you need on everyday basis. If you could save money from that, it's a huge blessing.

In addition to supporting migrant workers through providing sustenance, Wa'hab also emphasized community and connection as one of the goals it seeks to achieve through its charitable work. Mamukoya explained:

We need to bring into the community more people, more nationalities, and bring them in touch with these migrant workers, low-income workers. So it's not just about giving them food. It's about...showing them that we care, we acknowledge, right? So what I say is that even if you have surplus food when you dine out, there is food and food that you haven't touched. So I pack it up, and when you go into the compound, there are people there. And if you give it to them, and you ask them, did you have something for dinner? Can you take this? Do you want this kind of food? And they say yes, and then you give them some tip, it's not about the *food*, but it's more about caring for them. When someone asks: did you have your dinner? It's that kind of feeling.

Despite the outreach efforts of organizations like HA and Wa'hab, the social and financial difficulties many migrant workers experience remain highly concealed from the general public and/or unknowingly misrepresented by these charitable organizations—even though some charitable groups have been granted access to the compounds of migrant workers and have had the opportunity to converse with them and witness their quality of life. Moreover, large disparities exist between the rights of migrant workers within Qatari law on one hand and the actual realities migrant workers continue to experience due to lack of effective labor law implementation and/or corrupt practices from employers or other actors within the

broader migrant labor recruitment system. When I discussed migrant worker conditions with Ray Jureidini, a professor of migration ethics and human rights at the Center for Islamic Legislation and Ethics [CILE] in Hamad bin Khalifa University's College of Islamic Studies, he first shared his perspective on the irony of migrant workers receiving food donations in such a wealthy country as Qatar. He stated:

Back in 2012 in the [CILE] team, and it was during Ramadan when we heard about these charities that were providing food and other sorts of things that workers might need. And our reaction was this: that, in a way, the logic of that was shameful. Because to say that: here are workers who are contracted here to work, they should be receiving a sufficient salary and they should be receiving food from their employers that was at the very least adequate, and they should not be in *need* of charity. And it seemed to be a contradiction that, in a country like this, that charity was needed for migrant workers in particular.

Jureidini then problematized the lack of critical inquiry into the reasons migrant workers may be in need, stating:

Charitable individuals and organizations are really important for the people who are needy, and they're needy for one reason or another. But these charitable individuals and groups, if they don't question *why* these people are in need, but rather just provide the charity in an unquestioning way, then I think it's problematic.

Jureidini, who conducted substantial research on migrant worker rights and labor laws within the Middle East and Gulf region, also clarified numerous inaccuracies regarding the pay of migrant workers as well as their food and living conditions. When I informed him that some charitable groups believe all migrant workers receive sufficient food, he elaborated:

That's not everybody. It's not everybody, and there are three categories of workers in relation to food. One is that they are provided with three meals a day by the employer. Now, if they - if these people

went to the large accommodation sites like Labor City and so on, then yes, and some of the larger corporations who have their own accommodation sites, they are really excellent; and they provide not only food, but they provide culturally appropriate food. So they provide for the different food required by people from North India and South India and from Nepal and the Philippines and so on and so forth. They'll provide different food for the different nationalities that are working for them...Labor city is a very large accommodation site and small employers – a company might only have 10, 15 or 50 workers instead of thousands and thousands of workers. That's what some big corporations do have. They don't have their own accommodation site, so they rent from a place like Labor City. So they go and do a deal, sign a contract with Labor city to house their workers. Now the workers in some of the places in the industrial area were just horrendous - up to 10, 15 people in a room in bunk beds – *all* against the law!⁴⁷ But at that time, when we were doing the research in 2012, when we were talking to these companies, they said: look we'd be happy to do that, but we can't do that because there's not enough space. If the government released more land for building larger accommodation sites that could do that, where they could actually have four per room, which means you need a much larger...and the government started to do that. And then these big places got built, and with only four maximum in a room.

I proceeded to inform Jureidini of the confusion from charitable groups like HA regarding the pay of migrant workers. He clarified the misconception as follows, while elaborating on the other two categories of workers and also describing some unethical practices of various employers:

Nobody's getting 300 dollars a month. It would be a maximum of 300 riyals a month; that's less than 100 dollars a month; and some were getting 200 riyals a month. When we first came, people were getting 150 riyals a month to feed themselves. So what the norm is today, I don't know because there's no regulation and I've advised the committee that's currently looking/about to come out with a new minimum wage. There is currently, it's a temporary minimum wage, which is only 750 riyals a month, but they're going to come out with a new one. And I advised them that they should take into consideration that it was an opportunity to bring in a new minimum wage and an

⁴⁷ Jureidini explained that the legal limit was four per room with no bunk beds. In another part of the interview, he also elaborated on the horrible conditions of some accommodation sites, describing them as "disgusting" and containing lice in the bedrooms.

opportunity to bring in a *minimum* food allowance. A minimum amount for a food allowance because employers often played around with the food allowances. I've got evidence showing that a contract might have 300 riyals a month, in the contract, as a food allowance. But then I see the pay slip and it says they're only getting paid 200; so they can play around with this food allowance, which is pretty shameful. And then there's the other [third] category, where they're neither provided with food nor a food allowance; and you'll see in the report that I did on recruitment that we interviewed. I remember interviewing one company, the senior directors of this company, and I asked them. I said: do you provide food for your workers? The guy said: well we do now. I said: what you mean we do now? He said: we weren't and at one point we had a number of our workers in hospital suffering from malnutrition. So we decided to actually [provide food] - because what they were doing was that they would take the food allowance, and use that as their salary because they wanted to maximize their income, and so they were skimping on food, and even skipping meals and things like this. So they weren't taking care of themselves. So the one way to get around that was to provide them with three meals a day. And so that company did that, but others don't. But it's in their interests because if they want workers to be fit and healthy, you've got to make sure that they eat properly.

Jureidini's report (2014) on migrant labor recruitment to Qatar describes the food allowance problem as follows:

Another problem in not providing food, but giving a food allowance in cash is that workers are likely to use the food allowance as part of their salary and remit it home to their families. Indeed, one of the labour supply companies in Qatar pointed out that they now do the catering for their workers. Initially, they were paying them QAR200 per month food allowance. 'But all of a sudden we realized that they save the money and starve themselves to death. At one particular moment, we had 100 workers in the hospital because they did not eat for six days.' (p. 106)

Even though some research has been conducted on the rights of migrant workers in Qatar and which companies provide adequate food to their employees, there is a dire need for further investigation into which migrant workers still do not receive adequate food and the reasons why sufficient and culturally sensitive food is not provided. Jureidini affirmed that some personal accounts reveal the inadequacy of

the food migrant workers receive, but that making a case on behalf of certain employees can be difficult due to their fear of speaking up. He shared his knowledge of one group of migrant workers as follows:

We know, just anecdotally, I know that the pantry staff here in QF belong to a catering company that provides the labor for these pantry staff. Now we know that they're not being fed properly. These are people who are being *provided* with food, but the quality of the food that they're providing is inadequate and the workers themselves are having to spend their salaries in supplementing the food. There was a young man here last year who did not renew his contract because he was just not making enough money to send back to his family at home because he was having to spend it on food. The only thing he said at the time that was edible was the rice...and really it's shameful. And we all get very angry about this. However, as researchers and as advocates or activists - whatever you want to call us - who actually follow up on some things, are often prevented from making representation on these people's behalf. Why? Because they don't want me to. They don't want to rock the boat. They're frightened, basically. And so it makes it difficult when they do not want to complain; and that's the kind of work environment that many workers are caught up in.

Field research and interviews with academics and researchers in Qatar reveal not only some ways in which the bodies of low-skilled migrant workers are strategically “invisibilized” (Armiero, 2021) through residential segregation and marginalization, but also how their stories and struggles are invisibilized and deliberately or inadvertently concealed from the public.⁴⁸ Even charitable groups concerned with environmental and social justice causes in Qatar are not fully cognizant of the glaring disparities that exist in the working and living conditions of different subpopulations in Qatar. Most nationals and other expatriates residing in

⁴⁸ Domestic workers, whose living and working conditions cannot be addressed here due to the limited scope of this research, particularly face an additional layer of invisibilization as their social, emotional and financial struggles are considered private matters within the families benefiting from their services.

central parts of Doha enjoy high standards of living, high incomes, and ease of mobility and access to public places. Many Qataris and non-Qataris also consume and waste copious amounts of food and water without facing any penalties or social consequences, despite Qatar's heavy reliance on food imports and the economic and environmental costs of producing/transporting food in an arid and water scarce region.

In contradistinction—and aside from egregious cases of abuse, exploitation and corrupt practices depriving migrant workers of their wages or basic human rights—many laborers essential to the infrastructural growth and development of Qatar live in remote, dilapidated areas and are not sufficiently compensated for their strenuous physical labor. A large proportion also experience income inequality, discrimination, disproportionate exposure to environmental hazards, and difficulty accessing adequate health care and health care facilities (Mohammed, 2014; Jureidini, 2014). While the government prioritizes the achievement of long-term food security for the nation, many migrant workers – who are ironically neglected in this political discourse – have been suffering silently from food insecurity and malnutrition. In addition, migrant workers do not have adequate access to a variety of places to purchase suitable food (using their food allowance), do not receive enough hours for rest, recovery, and leisure, and are also not granted sufficient access to public/green spaces for recreational purposes. These inequities and injustices represent a more insidious kind of “slow violence” (Nixon, 2011) that further erodes the emotional, physical and mental well-being of laborers, many of whom have escaped physical violence and conflict in their homelands in search of

safety, better employment opportunities in the Gulf region, and better means of supporting the families they left behind (Mohammed, 2014).

Considering the gravity of these invisibilized forms of injustice, people enjoying the abundant wealth and social services offered by the state of Qatar have a moral obligation to demand the restoration of basic human rights to their neighboring migrant workers. Further research needs to investigate more deeply the financial conditions, health, and wellbeing of laborers in order to bring to light the extent and various forms of environmental and social injustices faced by this marginalized subpopulation of expatriates in Qatar. Research findings also need to be disseminated more broadly and effectively to the public, which could help mobilize people to hold the government more accountable. While the abuse, exploitation and suffering experienced by migrant workers is not sanctioned under Qatari law, the government remains responsible for implementing its labor laws and penalizing companies and employers engaged in corrupt and fraudulent practices. Qatari laws and policies can also be reformed to end residential segregation and discriminatory exclusions, particularly against single laborers whose presence in public places has previously been depicted as a potential threat endangering the safety of people in Qatar (Mohammed, 2014).

Since low-skilled migrant workers enjoy the least civil rights and are considered the most voiceless and victimized members of society, those who possess (or can acquire) the most political power (i.e., Qatari nationals) bear the greatest responsibility to create more social cohesion in society while helping forge a more just and sustainable trajectory for development in Qatar. Such development

would strike a balance between establishing social justice and achieving environmental sustainability, which necessitates granting all people residing and working in Qatar – particularly laborers – a healthier, higher quality of life while ensuring more equitable and dignified treatment of people from every ethnicity, class, and socio-economic status. This envisioned development would also centralize qualitative measures of prosperity (e.g., greater political freedoms and civic engagement), which have been shown globally to coincide with greater environmental quality (Torrace & Boyce, 1998, as cited in Agyeman, et al., 2002).

Quantitative models of development prioritizing economic growth and financial gain disproportionately favor large corporations along with their state allies vying for power within the global neoliberal economy (Agyeman, et al., 2002). Pursuing continuous economic growth (at the expense of other prosperity indicators) often comes with great social costs, including exploitation of workers disproportionately exposing them to numerous injustices ranging from financial inequities to greater environmental harms. Adopting a development model that prioritizes qualitative forms of advancement, however, would not only help honor ecological limits, safeguard natural resources, and protect life support systems; it would also facilitate the protection of migrant worker rights and reduce the need for relying on such a large and easily exploitable migrant labor force. Affording people greater opportunities for political engagement and social upward mobility can also lead to reducing gaping socio-economic disparities and existing power differentials between the poor and wealthy in society. In addition, granting more political influence to people who view social and environmental justice struggles as

thoroughly intertwined can lead to the advancement and implementation of more equitable policies and laws aiming to protect people's dignity as well as the surrounding habitats and ecosystems supporting the health and wellbeing of *all* humans and non-humans in the country and broader region. Once political authorities prioritize the most vulnerable people in their society over profits and power, the national call for protecting human rights at a global level and respecting planetary boundaries may be considered not only more genuine, but also more attainable.

CHAPTER 5: POLITICAL CHALLENGES FOR ENVIRONMENTALISTS IN QATAR

This chapter discusses three main challenges that non-state environmental actors viewed as either hampering their success as environmental advocates or hindering the advancement of socio-environmental relations and environmental conditions in Qatar. These challenges are: lack of access to environmental data (5.1), absence of a legal framework for NGOs (5.2), and hegemony of the petroleum industry (5.3). These challenges are politicized in this chapter as they reveal certain power dynamics at play in relations between non-state environmental actors and state agencies. Moreover, some informants explicitly considered these challenges political in nature and viewed them as deliberately orchestrated by state powers.

To preface this chapter, it is important to note a distinction some environmentalists made between political versus apolitical forms of environmental advocacy. Interviewees particularly working on climate change and ecological/marine research criticized the fashionability of being a pro-environmental advocate or activist in Qatar, and one informant juxtaposed the trendiness of being “environmentally friendly” with the need to gain deeper insight into environmental politics and vested interests in the “existing unsustainability”. Several environmental researchers argued that most people joining the environmental bandwagon in Qatar teeter around topics considered relatively safe or harmless from a political point of view. Examples informants gave include curbing plastic use, reducing water consumption, planting trees, cleaning up beaches, and promoting vegetarianism or veganism. One informant working for a Qatar-based climate organization mentioned that it was the “modus operandi” for

the head of his organization to focus on beach cleanups, and this informant threatened to resign if this remained the organizational focus. Even though environmentalists deemed some of the aforementioned practices (e.g., decreasing water/meat consumption or planting trees) as very important, they argued that focusing on these issues overlooks the deeper roots of environmental problems in the country. One informant asked rhetorically: “Can we really challenge the assumption, the current way of life itself as unsustainable? Can we really challenge the existing narrative of our dependence on fossil fuels? So, those areas are very hard that nobody wants to venture in.” The consequences for environmentalists who tackle such topics and narratives will be discussed in section 5.2.

5.1 Lack of Access to Environmental Data

One of the most salient points in the discourse of environmental advocates in Qatar concerns the inaccessibility of environmental data and related ecological and human health concerns. Interviewees described the difficulty of finding environmental indicators for things like greenhouse gas emissions and air pollution, heavy metal pollution, and soil erosion in the country. One Qatari environmental scientist also noted the lack of baseline data for coral reefs or any other ecosystem in Qatar. They noted that such data and indicators—“for a country of this wealth—should be available at some level, *especially* if they have ministries founded upon gathering of this information.” Some environmentalists believed the data exists, but argued that it either remained (deliberately) unpublished or was not disseminated sufficiently to the public. Syeed Showkath, an Indian expatriate who conducts environmental research in Qatar, explains:

Even when they make such launches of those reports, they make it hush hush. They don't make it with all the publicity and hoo-hoo. If you look at the Qatar Petroleum⁴⁹ and they released sustainability reports, surprisingly, and some are quite scary indicators. They have very high [sulfur oxides] and NO_x [nitrogen oxides] emissions. It's quite bad, and who cares? Ha. Who literally cares? They have it in their website somewhere, but nobody knows it exists. Even for their own employees, nobody knows about that information. So it's very hard for a citizen to pull that information out and make a sense of it, and tell like look, you know, you're doing bad.

Environmental scientists and activists argued that one of the greatest problems is the general public's lack of awareness of Qatar's environmental vulnerabilities (e.g., to air pollution, sea level rise, and water scarcity). Yet, they insisted that the people in Qatar are not entirely responsible for their lack of awareness since environmental scientists and advocates themselves are struggling to access information. One environmental scientist summed up this problem as follows:

When you look at - as a scientist (and that's why it's very important to understand society), the first thing we do is we try to understand what's the source of the major impacts. What is causing the impact? And then try and reduce that. But in reality, you're working with entire societies. And so you have to say, first of all, what do they perceive the impacts are? Well, they don't know. They don't even know that there's a problem. That's the biggest problem is people aren't aware. If you talk to the average young Qataris, they aren't aware that there's *anything* wrong. If they're not from a sector such as oil and gas or education or environmental education, even - ask anyone in literary humanities, and in any of the sectors that *wouldn't* naturally usually have to seek out information - they would not know; because even as an environmental scientist, it's been the biggest challenge to seek information. And that's my job. That's my full time job. And I can barely find resources.

Showkath also explained his struggle as a researcher and described some of the obstacles he faced when attempting to obtain environmental data:

⁴⁹ In October of 2021 (about three weeks before the convention of the 26th UN Climate Change Conference of the Parties [COP 26]), Qatar Petroleum changed its name to Qatar Energy.

Unfortunately, again, there is a lack of information that exists, which people tend to make certain assumptions, and people they don't dig into details, and that's what I try to do with those reports. I try to spend a lot of time in trying to understand the political economy behind these things and why a certain country follows this approach and that's where, when I was writing that report, the emissions inventory report, it took me one and a half years just to collect the data. It wasn't a very easy feat. I had to literally work with fifty-five organizations and almost 600 letters, I mean emails, were sent just to access—because it's much easier to want to make armchair criticism, but it's much harder to get in-depth information about how the society works, how the policy makers think, what is the approach a certain country takes; and that's what I was trying to figure out.

Mohammed Khalil, a GCC national, businessman, and founder of EcoMENA, also shared his dismay with the lack of accurate environmental data available in both English and Arabic:

I was doing research at that time. It was 7 years ago...I was going to establish a recycling plant in Qatar because we had to do something with plastic at that time. I was just doing desk research, and all the information was, one, inaccurate about Qatar; second, nothing was local information. No local data. These are data being sold from New York, London, Singapore, Delhi, I remember, and even some other places. The data were not really a reflection of facts in Qatar...And I said, I have to do something about this; and what I've done is – I said there has to be two things: local data. Someone has to do that. I went back to my previous employer and said you have to do something about this. I knew they were not going to do anything about it. Second, the problem is the Ministry of Environment was so weak at that time, in terms of data and disseminating information, and public engagement because there was no data and there was no Arabic content. That's a big issue we have in this region because at the end of the day, not everyone is you or me who speaks English.

While some environmental advocates have the liberty to produce and disseminate (arguably apolitical) environmental data to the masses, others working for academic or research institutions funded by the government and petroleum companies are legally restricted from allowing critical scientific information to see the light of day. One environmental scientist and educator expressed their dismay with research

centers operating like self-interested businesses that benefit from not sharing environmental information. This informant explained:

They function as a business so that when they receive a request [to conduct an environmental impact assessment], they sign a non-disclosure agreement. When they sign this agreement, they also get funded to *do* this research. It benefits *them* because, well, we've done this for these many companies, and now our CV as an institute is great. So more companies will talk to us. Also, we're very competitive and we're just what you want because we will *never* publish what we find.

This scientist explained that the companies and businesses approaching the research center are required by the government to conduct environmental impact assessments, but that neither the companies nor the government want the public to know the impact of their activities. This informant added that even when scientists create data and provide solutions for decision-makers, they never know whether or not their recommendations were implemented because they never hear back from these companies.

Some informants also expressed their frustration with the lack of available environmental data, particularly regarding matters affecting public health. One Qatari environmental scientist and activist considered the harm to people's health due to air pollution as the most immediate and flagrant environmental threat, but they lamented:

The ministry of public health will never release, and people can't - I can't even access that data. If I could, I would release it. I can't access data that proves that there's an asthma epidemic, and I cannot even gather [data] without military clearance...because it's political. The health of children is the most political. If I could, if I had access to that data, that's the best leverage. If people start understanding that their children, your lives are being shortened; your children are sick because of industries like construction and cement factories, people are going to - it's unacceptable. And it's something about children. It's

the innocence of children that's unacceptable. And if you've read about environmental psychology, it's always when, let's say, even a picture frame of a factory - the moment you put a child in there, people are very emotional. So all the leverages that are traditionally available for, let's say, environmental action groups and environmental scientists, are eliminated.

Executive Director of Qatar Environment and Energy Research Institute (QEERI)

Marc Vermeersch confirmed that QEERI's Environment and Sustainability Center

had five air quality monitoring stations around Doha (at the time of this interview)

monitoring air quality around the clock, seven days per week. Yet, he explained:

We do not publish the data because it's sensitive information, very sensitive information. So we cannot publish any of this work...In fact, we work with MME, the Ministry of Municipality and the Environment.⁵⁰ We work with MPH, which is the Ministry of Public Health. Mainly it is two ministries, and we tried to convince them to communicate on air quality because, today, you can download a few applications giving you air quality index for Qatar in the location you are; but you don't know where the data are coming from and who is validating the data...In many other countries, the air quality data, you can find an official and a reliable source of air quality data...So we tried to convince them, instead of - I think they just don't know how to handle it. So we tried to support, we tried to help...They are supposed to be the official entity communicating on this data; and we don't want to take the lead on this because we don't want to expose, publicly, the country without being supported by the ministries. It's not our duty.

When I asked Vermeersch what makes the data “sensitive”, he replied:

Because sometimes it's not good. From time to time, the air quality is not good because many of the construction work, because of the industry, because of transportation, traffic, because of industrial sector as well, and because of the neighbors as well. It comes from the region.

⁵⁰ In October, 2021 (roughly two weeks before the convention of the 26th UN Climate Change Conference of the Parties [COP 26]), Qatar announced the creation of a new ministry called the Ministry of Environment and Climate Change.

Yet, even with this information being labeled “sensitive”, environmentalists want to know the nature of the pollutants found in the air they breathe so they can better understand the gravity of the situation. One environmental activist mentioned that when Doha was included in a list of the top ten most polluted cities worldwide, the government rejected this claim arguing that the pollution is dust. This activist insisted: “But *show me* the data that says that the pollution is dust and not organic compounds and not arsenic and not heavy metals.” In critiquing the fixation on GDP as an indicator that does not account for externalities, one expatriate sustainability expert and environmental educator working in Doha said: “I think China has come to this realization just by the amount of half a million people dying each year because of air quality.” Echoing this point, one Qatari environmental scientist noted that health, education, and freedom of accessing information are important indicators, but the government highlights and promotes GDP because it is very favorable for them. They explained:

It's just that we've reached the level of development now that decisions should focus on prosperity; what prosperity means, everyone has a different perspective on it. Prosperity in my perspective is health, sustainability, happiness, access to education, access to information. For them, it's GDP per capita, which isn't real because we have a very small capita.

When I inquired about why the government is not divulging critical environmental information, some informants tied the lack of transparency to the government's need to secure Qatar's global image. Showkath observed:

I guess it's just one way for the government to completely avoid any sort of scrutiny... and there are certain elements in the society within or outside, they always try to twist information, and that can go against them as well—like in the case of UAE. I mean look at the labor issues [in Qatar], and there are excesses. There are violations that I

worked on myself as well. I interviewed almost 600 workers... You can see how these kind of violations have been twisted and kind of projected that narrative in the Western tabloids and everything. So the government is kind of extremely cautious, and they don't want to have any sort of negative image, which Qatar always tries to project that everything is fine here and they don't want to release any information where some communities will twist that whole information and use it against them... So that's a kind of approach that the government takes just to protect its image and sometimes... they don't understand there are good things as well, and there is a possibility for them to make a change and that's something [for] global environmental negotiations which closely follow what happens, and Qatar takes a very, very defensive approach. I'm not going to share any information.

One of the consequences of withholding environmental data from the public and the global community is the government's ability to delegitimize any critiques or alarming projections concerning the country's environmental conditions and their effect on the country's population. One Qatari environmental scientist argued:

How do you prove that something is happening? You have to show data. You have to show models. You have to project. OK, if we don't do this, I project, through this model, with this data, this will happen. If they have held that, and they're not transparent about that, I can never create this model. And so my solutions and my arguments are baseless. As a scientist, you discredit yourself. So you're in a very, very unique position.

Showkath reiterated this point with respect to critiques coming from Western countries. He stated that when faced with criticism, the following would be the government's response: "Let them say [whatever they want]. You don't have any evidence to back, and so your allegations are completely baseless."

One informant revealed the predicament of maintaining Qatar's public image and praising the government while simultaneously criticizing its environmental track record and future prospects for sustainability. This informant explained that if pro-environmental people become discredited for baseless criticism (due to the lack

of concrete evidence), then they will be labeled as “anti-Qatar” and, thereby, diminish their own arguments in favor of the environment. This participant argued that such a result would be the biggest threat hindering any kind of indigenous environmental movement from taking root in the country. Their reasoning was that an environmental movement should strive to motivate people, not the government, and discrediting environmentalists by portraying them as disloyal to the state would heavily undermine their ability to mobilize people. To avoid this potential consequence, this informant emphasized that environmentalists need to think strategically and maintain a position of strength by maintaining the public image of Qatar.

The question of why Qatar needs to maintain a positive global image with respect to its environmental policy and practice is closely tied to its global ambitions as a relatively small country (geographically and population-wise) seeking to construct its distinct identity from other Gulf states as a formidable actor in the region and worldwide (Al-Horr et al., 2016). Beyond establishing itself as a competitive liquid natural gas (LNG) exporter and its heavy economic investments throughout North America, Europe, and Asia helping to secure its financial longevity, Qatar also asserts its soft power and global influence through many political and humanitarian interventions, including its role as mediator and financial supporter in conflicts throughout the Middle East and Africa, as well as through many cultural and promotional initiatives such as the creation of its prestigious airline Qatar Airways and its hosting of major international sporting events like the FIFA World Cup 2022 (Al-Horr et al., 2016). While these efforts advance Qatar’s

interests of portraying itself as a credible actor in the global political arena that champions values such as security, peace and prosperity (Al-Horr et al., 2016), they overshadow the domestic struggle of Qatari nationals and expatriates seeking both physical security from environmental vulnerabilities and pollution as well as prosperity beyond wealth and financial stability.

Ironically, Qatar seeks to secure its financial longevity and protect itself physically from coercive annexation due to its abundance of resources (Al-Horr et al. 2016). Yet, some environmental scientists in Qatar believe that unmitigated environmental risks including sea level rise and rising temperatures will result in coastal regions – where the vast majority of people living in Qatar reside – becoming uninhabitable, causing people’s displacement to inland regions if the country fails to invest in coastal reinforcements to prevent submersion of its major industries. Under this scenario, political security and longevity would become meaningless when faced with ecological and environmental insecurity. As a more imminent concern, air pollution is suspected to damage people’s respiratory health and shorten their lifespan. Yet, the state is arguably withholding relevant environmental information from people needed to demand the government prioritize people’s health and the environment.

The state of Qatar is not only occupied with asserting its soft power throughout the world. Preventing people from accessing critical environmental data concerning their health and the integrity of their ecosystems in the face of industrial activities perpetuates the concentration of decision-making power about natural resources and their extraction and exploitation within the hands of the state.

Without the empowering tools of environmental knowledge and data available to people, and without the agency to voice their dissent, people are neither equipped with the ability nor the freedom to demand any government accountability. This condition not only leaves the state as the only credible authority able to communicate about environmental conditions and decisions, but it also eliminates the possibility of any indigenous or local epistemic communities from challenging the government or revealing any scientific information exposing the state's shortcomings. Such disempowerment effectively preserves Qatar's political and economic interests while allowing the state to maintain its advantageous position on the stage of international politics despite its domestic environmental failures.

5.2 Absence of Legal Framework for NGOs

Another major challenge environmental groups face in Qatar concerns their inability to operate freely as civil society organizations independent of the government's purview. Aisha Al Maadeed, a young Qatari and founder of Greener Future, described her aspiration to be environmentally active without government oversight as follows:

I have a couple of my friends, they are under the government umbrella, but they don't have the chance to do whatever they want. So I don't want to be put in this zone that I can't do anything. What's the purpose to have an organization or an initiative under a government or a ministry and I can't do anything? So to stay individual more special.

Multiple informants also highlighted the lack of a legal framework for non-governmental organizations (NGOs) in Qatar and described the difficult process for legally registering as a non-profit organization. Ehsan Shafiei, who began a project

on social media promoting zero-waste in Qatar, affirmed: “There’s no NGO in Qatar. There are initiatives, but there is no NGO as such; so this is the difference. Initiatives I think can start. There are some rules.” When I asked Al Maadeed about the government allowing registration of an NGO, she said: “They allow, but it takes a *loooooong* process; and then you will be on the spot for anything.” EcoMENA founder Mohammed Khalil states: “We have not registered the company in Qatar because I cannot register an NGO. It’s a mess to register NGO. So we decided not to.” I asked Khalil why he views it as a mess. He replied: “Because the requirement is so stringent to register an NGO.” Syeed Showkath also shared his experience with attempting to register his organization as an NGO:

When it comes to policy [for NGOs], there are no policies. There is no - we have to - we had a terrible challenge navigating the policy loopholes. There was no clear guidelines for what we need to do... Any NGO, it’s not very easy to exist here, so it takes a lot of work to persuade authorities that why we should be here, why is it relevant for us to be here and whether how we are going to survive or not.

Many of the stringent requirements and limitations environmentalists describe can be found in the Articles of Qatar’s Law No. 12 of 2004 on “Private Associations and Foundations”.⁵¹ According to Article 1, which was amended by law in 2010, permissible activities for associations include “humanitarian, social, cultural, scientific or charitable” endeavors, yet associations are forbidden from engaging in “political matters”. These matters are left unnamed and undefined, making it easy to use this phrase to discredit any activity or organization if the government deems it political. According to Article 2 (amended by law in 2010) and 3, associations must also be established with no less than *twenty* founders, one of whom must be Qatari

⁵¹ These can be viewed at <https://almeezan.qa/LawPage.aspx?id=3956&language=en>.

and all of whom would be liable for the contents of the governing documents of the association. These requirements make it nearly impossible for groups starting with a few founding members to establish themselves as credible organizations, especially when there is a high turnover rate of expatriates working and residing in the country.

Article 2 also stipulates that all founders and members must never have been sentenced for a crime, and must have “good reputation and conduct”. As with the prohibition against political engagement, this requirement can also be used to discredit individuals who openly challenge the status quo or who previously engaged in civil disobedience, for example, to peacefully protest things such as human rights violations or environmental injustices. With respect to the conditions mentioned above, exceptions can be made for associations that do not fulfill some of the conditions, but these must be proposed by the Minister of Social Affairs and approved by the Council of Ministers.

Article 4 (amended by law in 2010) also requires the association’s Memorandum of Incorporation to document personal details for each of the twenty founding members, including their names, nationalities, ages, and places of residence, which can be a deterrent for potential founders who do not want their data on record. This Article also requires the association to include its location or headquarters in the association’s Memorandum of Incorporation, which makes it difficult for non-commercial environmental groups that do not have an office space to register themselves. Associations are also prohibited from fundraising, according to Article 29, and any targeted fundraising for a limited time must receive consent

from the Minister of Social Affairs. According to Article 32, financial accounts and activities are also monitored and controlled by the Ministry of Social Affairs. With these limitations and requirements in place, environmental organizations—and all social, educational or charitable groups—cannot freely fund their initiatives and activities in order to sustain their programs as non-commercial and non-profit entities.

According to Article 6, to legally register an association, founders must submit an application to the Ministry of Social Affairs, which can be rejected if it does not meet any of the legal requirements. Not receiving a response from this ministry also implies rejection of a potential association's application. Once an association is established and registered, the Minister of Social Affairs has the power to dissolve the association under any of the following conditions: if its *membership* drops below twenty, if it violates the provisions of the law, or if it engages in "political matters". Taken together, these requirements and stipulations reveal the extent of government oversight and control of associations that severely restricts the range of topics and activities grassroots organizations can pursue as a collective, thereby negating the possibility of truly non-government civil society organizations existing in Qatar.

Even environmental advocates who gain approval and support from the government struggle to remain independent. Saif Al-Hajari, a Qatari environmental scientist and one of the most renowned environmental advocates in Qatar, explained:

When I start Friends of the Environment, it was my initiative, and then the Ministry of Youth said, OK, we need to host you; and then I

become under the umbrella of the Ministry of Youth as Friends of the Environment for twenty-two years...until two years ago, and there became a new minister. And he starting a new idea to cancel the NGO as NGO because they have [to have] board members. He started putting his blockade on one of the centers, not only my center. So I refused to stay there...He put it as part of the ministry, so he killed the concept of Friends of the Environment because we was linked also with international NGOs like Birdlife, like IUCN, a lot of - so I said ok, go. I'm going to start something new, so I start Friends of Nature.

The requirement for board members has been codified into law since 2004 (see Article 16 of Law No. 4 of 2004 on Private Associations and Foundations). According to Article 31 of the same law (amended in 2006), associations are legally prohibited from participating or partnering with other international organizations without approval of the Minister of Social Affairs. Based on Al Hajari's account, it appears that the ministry started enforcing these rules more strictly under the leadership of the new minister.

During my conversation with an expatriate environmental educator and sustainability expert on bottom-up strategies for environmental advocacy, they let out a big sigh and explained:

That's the dilemma hahaha in this country. So first of all, there really is no legal infrastructure for NGOs or grassroots movements in place itself; so initiatives usually come and die with a personal initiative...It's a very transient place, so people come usually for two or three year assignments. They try things, they leave...There are some organizations that are around, but it's just very small and there is no influence really. And so that is what some people are really eager to build...The two ways you can incorporate right now is either through ministries—then it's government—or you can incorporate as an economic organization—then it's business; but there is nothing in between really because it's difficult to control. There is nothing that you can use a home office as your base for an organization. There's always a commercial part of it that requires you to rent commercial space. And that's what a lot of organizations who run on volunteer basis, they have no operational budget; so it's always this: you can't

operate unless you check all of those boxes, and you can't check all of those boxes, so you can't operate in this country.

When I asked this informant to elaborate on these requirements, they said:

It's like a commercial office space, and that's usually the one that most trip over because if you are a volunteer organization you work together in the library or you're working together in public spaces; but you don't have a commercial address because you don't need one, or if you meet somewhere in public spaces outside, there is no need for anything like that. You create a movement of people who want to be part of certain things because they believe that is the good for the country. And yeah, officially it's not quite there yet. So there is a lot of things that need to be done in that regard.

This same participant made an important distinction between NGOs struggling to register themselves as credible organizations in Qatar versus organizations that enter Qatar as NGOs registered with a foreign entity and that operate under the umbrella and sovereignty of their embassies. This informant noted that many charities and organizations in Qatar labeling themselves as non-profits are, in actuality, government-funded because the individuals spearheading these organizations are paid by the government. One example of an established organization registered in Qatar that considers itself a non-profit is Hifz Al Naema. Its executive manager at the time of my field research was Ali Al Qahtani, a chemical engineer working for Qatar Petroleum (which, as of October 2021, changed its name to Qatar Energy).

Founder and Managing Director of Wa'hab Wardah Mamukoya aspired to create a movement tackling food waste,⁵² but she described the push to reframe her

⁵² Numerous studies reveal that GCC countries have some of the highest food waste rates in the world (See Bilali & Hassen, 2020 for an overview of some of these studies).

project as a commercial entity she can feasibly register—even though her wish was to form a charitable, non-profit organization:

We started out just as a movement, but we understood that we have limitations. Unless we are a registered company, people won't take you seriously, right? So we registered our company. Obviously, we started out as a non-profit, but we understood that this involves...there are expenses, and it's a self-funded company...Then, we went into campaigns and workshops, and they said that any charity has to be run as a business because it has to be self-sustainable. So we started looking into ways where we could make profit.

Khalil also elaborated on the limited choices environmental groups have while revealing the advantages of operating with government support or as commercial entities:

In Qatar, anybody who wants to do anything like that [environmental campaign] has to be sponsored or under one [government] entity; and it makes sense because then you get the funding, you get the financial support; and you get the legal framework to work under...Just like EcoMENA...if I don't do something, I have two options: go and be an NGO, which I'm not going to do that because I don't find myself not for profit, or have a commercial element to it, which I'm doing. With that I can go and talk to people as an entity, a commercial entity in Qatar...which has more influence, more credibility when I speak to stakeholders...but outside the region, I can continue what I'm doing. There's no problem; but my focus now is in Qatar. I want to have a better impact in Qatar, so we're going to do a commercial entity, a sister company. It's still called EcoMENA, but it has a commercial legal entity that can interact legally with stakeholders.

Khalil also shared that many people encouraged him to make a profit through his projects and were surprised to see him committed to waste management and raising environmental awareness without seeking financial compensation.

Some informants also offered their views on the potential for collaboration between non-profit organizations and the government, as well as the government's perception of NGOs and non-profits. Ali Al Qahtani, a Qatari national and executive

manager of the food bank/charity Hifz Al Naema, explained the additional support he would like from the government:

I mean open the limits of support. Start to be more supportive because I will not take your work from you. I'm supporting you. The thinking ten years ago: I'm your enemy. Now, I'm your friend...Previously, if you're talking about fifteen years ago...they thought the non-profit organizations were their enemy. They will not support them. They want to take their responsibilities. Right now, no. The knowledge has been changing a little bit. So they know that the non-profit organization is a supportive for the community, for the government also.

Khalil also believes there should be greater collaboration between the environmental ministry (currently named Ministry of Environment and Climate Change) and grassroots environmental groups such as the Doha Environmental Actions Project (DEAP), which (historically, and up until my field research) primarily focused on beach cleanups. When he and I spoke of the MME providing garbage bags to this group that regularly cleans Qatar's public beaches, he said: "Do you think that's enough?! To give them bags?"⁵³ The Minister. I want you to join me. Lead by example. The Ministry, they started their own now. They have their own cleaning initiative...because somebody wants to shine. OK, I don't have a problem with shining. As long as you get the thing done." Some environmentalists believe that this desire to "shine" is, in actuality, the government seeking to preserve the public image of the country as environmentally friendly by attempting to emulate grassroots environmental groups such as DEAP in order to protect the government from negative perceptions. If people believe the responsibility of keeping the

⁵³ Jose Saucedo (DEAP's director at the time of my field research) noted that, in addition to providing bags, the ministry also facilitates DEAP's access to specific beaches that require additional approval and picks up the trash DEAP collected if garbage bins are not available in the vicinity.

country clean belongs to the Qatari government, then it would appear that the government is not fulfilling its duty when grassroots environmental groups not only take on this task, but also surpass government agencies in their mobilization and efficacy.

Not all interviewees shared Khalil and Qahtani's views on the potential for collaboration between governments and non-profit organizations or environmental groups. Some informants—both Qatari and expatriate—even believed the sustained opposition to the existence of NGOs stems from the government's apprehension and negative perception of them. One expatriate environmental educator explained: "Even though you feel like you're in the service of the country, it's not supported because somehow you always feel you pose a threat to the country; and the perception is that NGOs are unruly bunch of people and uncontrollable—and I think that's something that people fear."⁵⁴ This fear is more palpable for environmental causes believed to be more political in nature and, more precisely, perceived to undermine or threaten the country's economy. One Qatari environmental scientist explained:

The issue with environmental things is that the moment that there's any risk to the economy, it's the first to be cut out, and that's globally. Sustainable departments, even in the UK, first to go, first to go - whenever there's any threat to the economy. When the economy was

⁵⁴ Multiple informants described how they have been perceived as strange or crazy individuals for proposing novel ideas or engaging in environmental initiatives that run contrary to the status quo. Vermeersch, for example, believed professionals in the petroleum industry viewed him as "a Martian" for taking risks. Showkath repeatedly mentioned how he is known as the "crazy guy" within Qatar's different ministries. Saucedo described a similar perception of himself multiple times during our interview. He stated: "I talk to people in the Ministry of Environment. They provided the bags and things like that. I go see them, and when we're talking I refer to myself as a crazy American because I know they all think I'm crazy. They don't tell you, but they think I'm *crazy*. They like but *whyyyyy*. Why are you going to Al-Mafjar to clean up? Take your family there. It's beautiful. I'm like, yeah! They're coming with me. They're like, but *why?* I can tell—there's a cultural disconnect."

at its strongest, the Ministry and the (Supreme) Council of Environment in Qatar had a huge voice...It was even higher [than the MME]. It was given a position...It wasn't a ministry at the time; so the government structure of environment follows a very close pattern to the GDP of Qatar; so when it drops, it's a department. When it increases, it's a council. When it was a council, that's when *most* regulation, *most* action plans were developed. And since then, it has *never* reached that level of priority. And even now, it's simply a department.

According to some environmentalists in Qatar, the pattern described above reflects the country's persistent prioritization of short-term economic security over long-term environmental integrity. In addition, mobilization to decarbonize the economy is perceived as a potential threat to the political power of certain government authorities. One Qatari environmental activist stated:

When I say the economy, more than ninety percent - more than ninety-nine percent - is a carbon economy. So if you yourself have shares in a carbon economy, at what point, and in what rational mind would you start to decarbonize a carbon economy, which *you* are benefiting from—unless the *entire* society starts mobilizing and *your* position of power is threatened because *people* aren't happy?

Ironically, some environmentalists in Qatar believe the government considers certain environmental causes as political and economic threats, while these same environmentalists believe continuing with business as usual and with unabated investment in a carbon economy not only threatens the longevity of Qatar's (and the region's) natural environment and local economy, but also its people—for whom their homeland and place of residence would become uninhabitable due to the impact of irreversible environmental risks such as water scarcity, unbearable temperatures and sea level rise. One Qatari marine scientist remarked poignantly:

At the end of the day, you can't drink your petroleum. You can't eat your petroleum. We have plenty of that. But at the end of the day, if it's not sustainable *naturally*...even our fish stocks have collapsed, so

our only sustainable source of food security was marine. Ninety percent of it at least was *marine*. And our fish stocks have collapsed. Bahrain's fish stocks have collapsed. Kuwait's fish stocks have collapsed. And so in terms of natural resources, we've already run out. In terms of *economic* prosperity, we will run out. It's too late to mitigate.

Some environmentalists engage in environmental advocacy with more hopeful ambitions for making systemic and infrastructural changes. Yet, even these environmentalists – who are also social justice advocates – know they need to proceed with caution when speaking truth to power. As Showkath conveys,

We have to test the waters. We don't really know in terms of the sensitivity what to touch and what not. What are the no-go zones? We have a fairly bit of idea of the no-go zones, but still, we need to tread cautiously and to tell things in a way that we don't want to be telling what they want to hear, but at the same time to tell things – come up with solutions.

According to some environmental scientists and advocates, venturing into political topics using a critical approach that lacks cultural sensitivity or a tactful strategy can cost environmentalists the ability to offer credible and meaningful recommendations for substantive changes in social and environmental policy and praxis in Qatar. Informants discussed a range of possible outcomes for such individuals, ranging from non-renewal of contracts and residency or deportation (for expatriates) to imprisonment and even revocation of citizenship for Qatari nationals. Some expatriates believe people's fear of deportation causes them to self-censor and avoid speaking about topics like renewable energy, which would be deemed as threatening the country's present economic security. One environmental educator who has worked in Qatar for over a decade explained: "You get deported for all kinds of things...there's also a lot of self-censorship. I grew up in former East

Germany, so to me this feels very much like former East Germany. It's fear induced. So I mean it only works because people are afraid." Laurent Lambert, who is an assistant professor at the Doha Institute for Graduate Studies with expertise in the water-energy-climate nexus, explained: "It's simple. You can add nice things. You cannot criticize the rest. OK. You cannot criticize, you cannot stop, you cannot comment negatively—unless you're a Qatari national." When I mentioned to him that an unnamed GCC national I interviewed believed he could speak freely about environmental issues, he said:

Listen, you know, he will tell you that. I say, please tell me when he contradicted the government's decision—because I can speak freely my mind about: we should have more green areas, and so on. I make reports which are publicly available about the government should work on this, should work on being more efficient, so on and so forth. There is too much waste. I can even say that. But if I go into the detail, and I say: this ministry in 2014 did a bad work of doing that, that, and that, I am already at the red line. And if I go any further, then it's too much; and they won't put me in jail, but they may not renew my residency.

I mentioned that several environmentalists I spoke to were concerned with the possibility of deportation. He responded:

Yeah, yeah, true. But to be honest, they rarely deport people. It's so much easier to wait until the contract is finished and not renew their residency. Technically, no one's fired. No one is kicked out. It's just that he cannot stay anymore. The contract is finished. It cannot be renewed.

Showkath described to me his fear of deportation when speaking about migrant worker rights. He said:

I worked as a consultant to the Minister of Development Planning and Statistics. They asked me to write a background paper on right to development of non-Qataris. It was very controversial at the time and they asked me, and I asked them in writing that you will not deport me; so I was just doing all these interviews...You can just see that

there are excesses even when it comes to labor rights and violations and everything, and when I wrote the paper, I talked about some of the very very hot issues that could potentially lead me to deport. I talk about permanent residency at the time, I talk about increasing minimum wage and wage protection, and all these things which eventually ILO [International Labour Organization] is working on.

Although some expatriates believe Qatari nationals are immune from facing consequences for criticizing the government, interviews with several citizens revealed an awareness of Qataris' inability to criticize openly without repercussions. When speaking to a Qatari environmental scientist, I shared my knowledge of a non-Qatari professor who presented the development model of Qatar as unsustainable in a public forum. They asked: "Were they Qatari?" I responded: "No, but they're no longer here." They said: "Exactly...The *same* would happen to a Qatari." I asked how so, if such a person is a national. They replied:

Well, yeah they're nationals, but any government can strip someone of a citizenship. And then you're undocumented without any citizenship. That's the most difficult position to be. That's the *most* vulnerable position to be. And you can see that with refugees, you can see that with Palestinians. They're the *most* vulnerable in societies. If you don't have an identity, if you don't have a government that you're associated with, good luck getting anywhere in this planet.

I was curious if Qatari activists faced a risk of imprisonment. They said: "Yes. That's the easiest and first risk." I shared my ignorance of the presence of any prisons in Qatar. They said: "So you *wouldn't* hear. You wouldn't hear. There's a reason you wouldn't hear! You wouldn't hear because we live in a very constructed strategic bubble of information." This informant then detailed the story of the immediate imprisonment of at least five Qatari signatories on a letter penned by a university professor in the 1990s suggesting the adoption of a more democratic system as a

means for prosperity, which resulted in this professor being placed under house arrest for years. Concluding this story, this informant stated boldly:

To be imprisoned by a government is fine in my perspective, for environmental activism; but the biggest danger is, unfortunately, in the last few years, there's been heightened heightened [repeated for emphasis] levels of nationalism; and so any criticism—regardless of how much it would benefit this country, this government, the people—can easily, within seconds, be turned into a treacherous remark.

Environmental scientists and activists such as these appear to be willing to sacrifice their personal liberty for the greater good of society, but their awareness of the consequences of discrediting environmentalists as unpatriotic or as enemies of the state makes them acutely cognizant of the need to adopt more calculated and politically shrewd tactics to educate the public about environmental issues in Qatar (and the region) in order to achieve the socio-environmental changes they envision.

The experiences and perspectives informants shared on the perception of environmentalists and registering of NGOs in Qatar reveal how, despite the genuine interest of environmental advocates in serving the country and contributing to advancing its natural sustainability and the longevity of its population, environmentalists continue to struggle with numerous political obstacles and legal barriers hindering their collective organization and mobilization as credible organizations established in Qatar. By severely restricting the ability of environmental groups to assert their autonomy and independence from government entities without subjection to close scrutiny and government oversight, these environmental groups cannot build sufficient capacity and credibility to hold government agencies and businesses accountable for any environmental

transgressions. Moreover, restricting their ability to fundraise limits their access to community resources and financial sponsorship required to organize programs as non-commercial entities, which consequently limits their ability to expand their educational outreach and mobilization efforts beyond their founders and active members. In addition, making it illegal to engage in political matters effectively criminalizes environmental activism that views environmental problems and struggles as inseparable from environmental politics and the broader political economy of Qatar. Restricting the path toward legal legitimacy for charities or environmental groups to that of becoming commercial entities – for those who cannot work with the state – demonstrates the hegemony of economic priorities and reveals how value-driven projects and initiatives in Qatar become subverted and reconfigured to meet financial and market-based objectives.

The restrictive policies and laws mentioned in this section not only demonstrate the continued undermining of environmental priorities to protect both the interests of the state and economic interests of petroleum industries, but they also demonstrate how the government uses multiple methods and tactics to create insurmountable barriers to social and political influence. These tactics effectively restrict the freedoms of people – Qataris and non-Qataris alike – to criticize government policies or weaknesses and to organize for the sake of actualizing social and environmental justice. By perpetuating a culture of fear that marginalizes certain forms of civic engagement and service, the government upholds a political and legal system marked by severely restrictive measures that deprive people of

basic civic rights while effectively reserving political and decision-making power solely for the top political and economic elites of the state.

5.3 Hegemony of the Petroleum Industry

Another salient theme from interviews conducted with environmental scientists and advocates in Qatar concerns the political and economic dominance of the petroleum industry and its ability to exercise disproportionate power over environmental policies and practices in the country. Some informants described how the petroleum industry has effectively taken control of the government, education system, and media such that not only environmental decision-making, but also environmental research and public awareness (or lack thereof), continue to serve this industry's interests and maintain business as usual. Many interviewees distinguished between the positive environmental leadership and sustainability initiatives of members of the royal family (e.g., Sheikha Moza) and the Emir on one hand,⁵⁵ and the calculated political and economic decisions of business leaders – particularly those representing Qatar Energy (QE, formerly Qatar Petroleum) – who sit on all the boards of Qatar's ministries and have arguably had the greatest influence on shaping the past, present, and future energy development of the country. In explaining the nature of centralized governance in the GCC and Qatar specifically, one Qatari informant stated:

⁵⁵ Although some informants considered the environmental leadership and initiatives of members of the Qatari royal family as part of a strategic branding campaign to preserve the public image of Qatar, others viewed their contributions as sincere efforts to improve the environmental state of the country in line with its stated values, and to genuinely contribute to global sustainability initiatives and climate change agreements.

In Qatar, it's centralized. In the GCC, it's centralized. It's *so* centralized [in Qatar] that it's a single person. And it's *not* who you think it is. It's not the person on top. It's QP. It's one CEO that's also minister, that's also everything...Saad Sherida Al-Kaabi is the CEO of QP, which by the way, owns every other petrochemical petroleum company, and is now the Minister of Energy, and he's also on the boards of *every* other ministry.

After describing how the head of QP is running the country, they clarified: "The same way that a president of a country isn't actually in power, it's the same; it's not him specifically, but the institute of QP as a whole is running the show, and has always been running the show." When discussing how the political system was designed to align government and education with business interests, they remarked:

If you look at the structure, the political structure of the system, we see who's on the boards of different ministries. It's very intentional. It's very public also, so if you open up the [board of directors of] ministries—usually it is the case that governments control education systems, which in most countries around the world they do—you want to find out who is in these positions of decision-making, and it's always petroleum companies; so petroleum companies are on the boards of ministries of environment, they're on the boards of ministries of education. They're on the boards of every ministry. If you open up the board of directors, there's always a QP member. It's almost by law.

Although this unchecked power of the petroleum industry has its downsides (which will be addressed later in this section), it is noteworthy that some informants acknowledged and highlighted the positive effects of Qatar's rapid urban development facilitated by QE's energy systems and production. One expatriate environmental educator who has worked in Qatar for over ten years stated:

If you look at the U.S., if you look at Europe, the development of this country—every country takes a hundred to several hundred years; and Qatar has pushed itself through enormous amounts of progress in a very short period of time—and I think it gets very little credit for

that, and it deserves a lot of credit for that. Within these eleven years of our lifetime here, it is a privilege to witness some of those things where things come full circle.

Another Qatari environmental scientist explained how the former Minister of Energy and Industry Mohammed bin Saleh Al Sada played a critical role in developing Qatar and uplifting the quality of life for its people:

He pushed it from being an undeveloped country to everything that you see now...We didn't have hospitals, we didn't have schools, we didn't have roads. It's very, very difficult to fathom because it was a single generation. It was a single person; but we didn't have *any* of these resources, and so when the majority of that generation reflects on QP, reflect on the Ministry of Energy, it's: they created a livelihood. They created the *highest* possible quality of life that we have *ever* seen and we can *ever* anticipate, and we are living that reality.

When I commented that many people consider these developments a blessing worthy of gratitude, they noted: "Yes, and that's strategic. If you are criticizing, you are ungrateful." This criticism from some informants is tied to the country being locked into a carbon economy, despite having reached a sufficient level of development enabled by fossil fuel extraction and exports, and despite the country facing numerous environmental vulnerabilities. One Qatari environmental scientist lamented Qatar's lack of investment in decarbonizing its economy and its continued investment in petroleum-funded projects:

What's amazing about the U.K., you have roadmaps, roadmaps to 2050, roadmaps to decarbonization. Roadmaps—so the government has *funded* scientists, economists, sociologists to help industries that are locked in; industries that are invested and locked into a very high carbon system; how to decarbonize themselves and be sustainable. None of these efforts are happening. If anything, we've continued to invest in the same oil and gas. There's billions already invested in a mega train and Ras Laffan for more oil and gas production, which is fine. I'm not saying stop oil and gas. We're completely locked into our GDP. We cannot stop it now. But there's no funds - at all - available to the reinforcements...So it's this cycle where very very [repeated for

emphasis] ill-informed, or very strategic people, are in places and are *not* making the correct decisions *or* they're implementing strategies and incorrect decisions intentionally—but I can't see why.

Some informants believe this shortsighted decision-making reflects the petroleum industry's and state's persistent adoption of a profit-driven economic model that relies on uninterrupted exploitation of Qatar's hydrocarbon reserves and unyielding production of natural gas and petroleum-derived products. Investing in and deploying alternative renewable energy while the world is still predominantly dependent on fossil fuels may be viewed as a potential disruptor to the well-oiled profit-making machine and formidable threat to the lucrative business of hydrocarbon exploitation and exports.

While Qatar is known globally for its heavy investments in education, research and development, some environmental scientists and advocates in Qatar observe a gaping rift between its on-going scientific and technological research on one hand and the local application of innovative ideas and solutions produced by this research on the other. GCC national, businessman, and founder of EcoMENA Mohammed Khalil expressed frustration with this evident disparity:

We are not doing much in terms of attracting knowledge. I'll give you an example: QF. What is the output of QF? Seriously, what is the output of QF? We have a great labs, great minds...And I would argue this: if you want to be sustainable, grow our economy and diversify it well; use what we have. An example is some of the faculty we have here, they are world-class. You know, I know this. I've worked with them. Engage them in the private sector. Let them add value. Let them innovate. We have QSTP [Qatar Science and Technology Park], which is just a building. We spend *two billion* dollars on that entity. What is the output? We have 26 or now 33 companies, small ones. Nothing of a value.

He later stated that Qatar Foundation⁵⁶ has good universities, but argued that the majority of highly qualified expatriates graduating from these universities are not being employed in the region for political reasons. When I asked what meaningful output he envisions from research institutions in Qatar, he explained:

The output: you either have research that I can take it to our regulators and have a new regulation, or the output: trying to have an idea patented. Commercialize it. That to me is enough. And I don't see neither being done. Maybe it's done. Texas A&M is doing some initiative, which is good.

When it comes to renewable energy, several informants noted how solar energy in particular has great potential in a region with sunlight year-round. Although environmental institutions in Qatar (e.g., Qatar Environment and Energy Research Institute) are conducting valuable research on solar energy, it is not utilized and deployed effectively within Qatar itself. One Qatari environmental scientist explained:

You need to find out what it is that they've actually *claimed*, and what it is that they've actually *done*. That's the *only* way that you can figure out if this [investment in solar energy] is a priority or not. And it's very, very clear that it's not a priority. Because there's no action, there is no true action. They continue to invest in research. But is there a salience between the research and implementation? There isn't. It's completely clear. When they look back, they will say, oh, but we've invested this sum into the *research* of this. But nobody's asking what was the outcome of the research. How was it applied? What was the benefit? Nothing. And this is in terms of research grants—whether from Qatar National Research Fund [or other sources]. There's no follow up. This is in terms of research grants from oil and gas. This is in terms of research grants from the government itself, which is oil and gas ahaha. There's no follow up. And they have, time and time

⁵⁶ Qatar Foundation for Education, Science and Community Development is a state-initiated non-profit organization aiming to advance education, research, and innovation in Qatar. One of its largest projects is the development of Education City, a campus hosting numerous international and national academic institutions and research centers.

again, put whatever *we* have recommended as the science community in their drawer and let it collect dust.

Multiple informants pinpointed the lack of political will as a major obstacle preventing the necessary investments in solar energy that could facilitate its deployment. Marc Vermeersch, an expatriate physicist serving as the Executive Director of QEERI at the time of my field research, contended:

What is hindering the development and deployment of solar energy in this country is not corrosion, it's not the climate, it's not the dust, it's not the heat. Of course, none of it helps. Definitely not. The heat is not good and the dust is not good for solar energy, but it's technical issues. You can solve it easily. What limits the *real* deployment of solar energy is mainly the policies - lack of policies - and the fact that poor decision at the country level. Again, I don't have to criticize or to comment. Any decision at country level, this is what it is and I understand. Deciding that electricity and water will be for free for the Qatari nationals in the country, I *fully* understand that it's a way to redistribute the wealth of the country coming from oil and gas. So it is great. But the drawback for that is that *no one* cares about electricity, and no one cares about water.

Another expatriate environmental educator and sustainability expert echoed the need for political will, arguing:

Qatar produces energy for the rest of the world, so therefore it should get some leniency. But that's not really the question. You're in a country with 365 days of sun, so the option of really changing into something that reduces your carbon footprint is big. And it requires some political will, and it requires some investment obviously of sorts.

Some informants believed that the government's investment in scientific and technological research represents a form of greenwashing serving to divert attention away from Qatar's lack of genuine commitment to investing in renewable energy and diversifying its economy beyond fossil fuels.⁵⁷ The country's

⁵⁷ Although Qatar benefits from year-round sunshine, it opened its first solar power plant as late as 2021 (Cochrane & Al-Habeebi, 2023). While Qatar plans to establish several more solar power plants in

commitment to maintaining business as usual arguably reflects in the actions of the Minister of Energy and Industry/CEO of QE, who – according to one unnamed informant – decided to shut down a brand-new research and development facility for QE with hundreds of employees two years prior to my field research. Informants who were cognizant of the extent to which the country is presently locked into a hydrocarbon-based economy also believed that government documents such as the Qatar National Vision 2030, which speaks of developing a knowledge-based economy and balancing economic growth with environmental protection, are greenwashing tools that do not reflect political and economic realities in the country. One Qatari environmental educator and activist posited:

The QNV has nothing to do with anything that's actually working in this country. Most people have not read QNV. They're *using* it because, like I said, they needed to have one for the sake of SDGs, to follow that trend, to have a public image. So I don't use QNV as *any* format, as *any* background, as *any* structure that's relevant because it's not. But it's a structure that's *relevant* because that's what they quote for their political photo-ops, because they *need* a target. So QNV is good because, like, we have this 2030 target. *None* of it is relevant. *None* of it is a *true* target. It's all greenwashing, it's all talk and promises and hopes. But none of it is goals. None of it is *true* targets. So I don't even talk – like, when someone brings up Qatar National Vision, I just *laugh* because it's not *real*.

Yet, some interviewees believe Qatar is genuinely seeking to change course and transition to a knowledge-based economy. One expatriate stated:

The whole focus on innovation and really putting this whole transition into knowledge-based economy is something that the country honestly wants to do; and the example that Qatar sets itself is Norway, Indonesia, and Singapore. These are the three countries on which the leadership is kind of looking on because all three countries were oil-

the coming years, its simultaneous plan to increase its LNG exporting capacity (from 77 million tons per year as of 2022) to 126 million tons per year by the year 2027 (Cochrane & Al-Hababi, 2023) casts doubt on its actual commitment to diversifying its economy away from fossil fuels.

based countries and have somewhat made a shift to a knowledge-based economy.

While this view may reflect the genuine interests of some political figures and members of the royal family, petroleum giants wielding the greatest power over government policy and action may effectively prevent this transition from taking place rapidly enough, which some informants believed irreversibly jeopardizes the country's natural/economic sustainability and people's quality of life in the long-run.

The first two political challenges described above (lack of access to environmental data and absence of a legal framework for NGOs) can be understood better in the light of the third challenge concerning the hegemony of Qatar's petroleum industry. By thoroughly infiltrating government agencies and aligning its economic interests with that of the state, the petroleum industry has gained formidable power to shape discourses, institutions, and educational curricula to maintain an extractivist culture in which continued dependence on fossil fuels is considered unquestionable and a matter of 'common sense' (Gramsci 1971; Williams, 1977; Laclau and Mouffe, 2014, as cited in LeQuesne, 2018). Dominance of this extractivist culture within society facilitates and enables the continued manipulation of decision-making to further entrench and expand extractivist policies and praxis. Within this context, any knowledges, discourses, and voices challenging the dominant fossil fuel narrative are marginalized or stifled as they threaten the financial interests of petroleum companies along with the interest of the state in maintaining its legitimacy by providing social services and a high standard of living for its people (Mitchell 2011, as cited in LeQuesne, 2018).

Moreover, dissenting voices are structurally suppressed as state-sponsored educational or environmental institutions funded by hydrocarbon wealth are neither scientifically equipped, nor politically free, to question government decisions or environmental degradation and pollution caused by the petroleum industry. Even when the scientific knowledge is available, many academics employed by government-funded institutions would not consider publishing research critical of the state or government decisions. As one Qatari informant argued: “No one's gonna bite the hand that feeds them with research that's *perceived* that they're creating damage.”

The integration of petroleum companies into the apparatuses of government and civil society has not only fused public and private interests while restructuring political, economic, and social priorities in line with extractivist and market-based logics (Engler, 2014, as cited in LeQuesne, 2018). It has also eliminated the possibility of maintaining checks and balances by blurring the line between government regulators and environmental polluters. Allowing petroleum companies to monitor their own pollution while holding seats of power within government frees polluters from accountability to an independent authority, which ideally would enforce environmental regulations without conflict of interest influencing its implementation. The unchecked power of the petro-state alliance (LeQuesne, 2018) incentivizes greater concealment from the public of the pollution's severity and subsequent environmental problems, while disincentivizing the creation/enforcement of new or stricter environmental regulations against polluting companies in line with emergent scientific realities (e.g., evidence of air

and water pollution harming the genetic/physiological health of terrestrial and marine life). The union of petroleum companies with the state has not only allowed for a configuration of the prevailing culture, energy policies and laws, education, and media to serve the mutually advantageous economic and political interests of the state and petroleum industry. This powerful alliance has entrenched its capitalist and extractivist logics and infrastructure so deeply within society that its continued survival and longevity necessitate restricting people's civil rights and their freedom to access relevant information, organize, fundraise, and mobilize to challenge the petroleum industry's hegemonic power and capture of government (Schendler, 2021).

Based on my field research and the perspectives of various environmentalists in Qatar, it appears that the struggle for environmental protection and sustainability remains intimately intertwined with the struggle for freedom of speech, autonomy, and social justice. As the government buys people's acquiescence, appeases them with abundant wealth, heavy subsidies, and a high standard of living – all the while strategically educating (or indoctrinating) people to maintain the status quo – it deliberately deprives them of the civic tools necessary for political engagement. These strategies effectively disable people from championing environmental causes—let alone their own rights to speak their mind and fight to protect their health and that of their families and progeny. As interviews with multiple informants in Qatar revealed, discourses on environmental issues that centralize the voices of indigenous people, local environmental scientists, and activists (along with the intersectionalities of these groups) can play a major role in

elucidating the relationship between social and environmental concerns while empowering people to resist the petroleum industry's hegemony and demand a more equitable redistribution of political and decision-making power in favor of the people of Qatar.

CHAPTER 6: ISLAMIC ENVIRONMENTAL THOUGHT IN QATAR

This chapter and the following chapter examine Islamic environmentalism in Qatar. The views featured in these two chapters are based on field research and interviews conducted with Muslim intellectuals, academicians, and environmental activists in Qatar as well as Muslim environmental scientists and advocates spearheading several different organizations in the country. This chapter explores Muslim scholars' and ethicists' perspectives on the current condition and future potential of Islamic environmental thought as well as various socio-environmental challenges in Qatar. The first section (6.1) addresses methodological and epistemological challenges and reveals the significance of formulating new holistic paradigms and frameworks to address contemporary environmental issues while rooting environmental thought within Islamic scripture and an Islamic worldview. The next section (6.2) highlights Muslim scholars' perspectives on contemporary debates in Islamic environmentalist discourses. The third subsection (6.3) details some of the obstacles these scholars perceive as hindering the alignment of Muslims' environmental practice and behavior in Qatar with Islamic environmental ideals. The last section (6.4) explores Muslim scholars' perspectives on the role of imams and religious authorities in leading Islamic environmentalist discourses and reforming environmental thought and behavior in Qatar.

To explore Islamic environmental thought through the lens of Muslim intellectuals in Qatar, I conducted a series of interviews with scholars specialized in Islamic studies who had particular expertise in Islamic jurisprudence, Qur'anic studies, and Islamic ethics. At the time of my fieldwork in 2019, most of these

scholars taught at the College of Islamic Studies (CIS) at Hamad bin Khalifa University (HBKU) and/or spearheaded research projects at one of CIS' research centers known as the Center for Islamic Legislation and Ethics (CILE). CILE is considered one of the leading Islamic research institutions in the world producing and disseminating research in applied Islamic ethics through seminars and forums as well as peer-reviewed academic publications. This research center is of particular interest for my study because it aims to recentralize ethics in Islamic thought while leading the renewal of Islamic legal/ethical thought and practice as applied to numerous fields, including the environment, economics, education, and politics.

Interview questions with CIS and CILE scholars covered a number of issues, including the relationship between legislation and ethics in the Islamic tradition and as understood by contemporary scholars of Islam. Interviews also inquired about the dearth in scholarly contributions to the field of Islamic environmental ethics and the reasons for this scant contribution. In addition, interviews explored the ideal methodology for reforming Islamic environmental thought in the light of contemporary ecological challenges. Interviews also addressed some of the main contemporary debates in Islamic environmentalist discourses as well as the role of imams and religious leaders in advancing socio-environmental relations in the Muslim world, particularly in Qatar and the broader Gulf region. The following subsections highlight some of the most significant positions and themes that emerged upon analyzing the qualitative data gleaned from these interviews. Most informants quoted below consented to their identities being revealed in this research, but some chose to remain unidentified. For the latter informants, I have

quoted them anonymously without revealing their particular expertise or academic/environmental institution for which they worked.

6.1 Methodological & Epistemological Challenges

Making meaningful intellectual contributions to the field of Islamic environmental ethics requires 'locating' Islamic ethics within the Islamic moral tradition. Mapping Islamic ethics within the Islamic tradition allows contemporary scholars to build on previous scholars' contributions by providing new scriptural readings or paving new intellectual pathways for addressing contemporary issues. One of the challenges in this endeavor relates to how Islamic ethics was never defined as a distinct discipline throughout Islamic history. Rather, Islamic ethics can be found interspersed throughout the various scientific disciplines of Islam's intellectual tradition that were formulated and developed over the centuries. As such, many contemporary scholars would consider Islamic ethics an interdisciplinary field when it comes to extracting ethics from the different Islamic scientific disciplines. One informant explained:

You would have Islamic ethics in *fiqh* [jurisprudence]; you would have Islamic ethics in theology; you would have Islamic ethics in philosophy; you would have Islamic ethics in Adab [manners/etiquettes], in Sufism, etc. All these contribute to ethics. All these disciplines are not necessarily ethics disciplines. So they may have other concerns. But you cannot have Islamic ethics without serious engagement with these disciplines. So ethics is not replacing *fiqh*; is not replacing theology; is not replacing philosophy, but making benefit of their scholarly contribution.⁵⁸

⁵⁸ In the Islamic intellectual tradition, differences of opinion exist regarding the source(s) of ethics and morality. See Abou El Fadl (2017) for an overview of some of these differences along with a proposed conceptualization of the relationship between Islamic ethics, *sharī'a*, and Islamic law.

Methodologically speaking, other scholars including Mutaz Al-Khatib⁵⁹ believe adopting an interdisciplinary approach alone is insufficient and argue for a broader approach incorporating transdisciplinarity, which allows for bridging disciplinary limits and crossing borders between the different Islamic sciences (e.g., *Qur'an*, *Hadith*, *fiqh* [jurisprudence], *uṣūl al-fiqh* [legal principles/methodology of jurisprudence], *etc.*) while also consulting or drawing on knowledge from other pertinent fields like Western philosophy and bioethics. Transdisciplinarity, which is one of CILE's overarching methodologies, opens the door to holistic assessment of complex legal and ethical issues that benefits from cross-fertilization between ideas and contributions from various disciplines within the Islamic, social, and natural sciences. Yet, even when adopting a transdisciplinary approach, having a firm grasp of the different Islamic disciplines and their respective methodologies is considered paramount for advancing Islamic intellectual thought as applied to different areas such as the environment or social justice.

Informants shared a number of practical, historical, and political reasons for the lack of sufficient vigor and sophistication in contemporary Islamic environmental discourses. Several scholars noted both practical and political considerations. One anonymous informant problematized the lack of trained researchers with academic expertise in Islamic studies who can contribute scholarly works on the environment. This problem is exacerbated by the scarcity of scholars capable of educating other scholars using interdisciplinary and transdisciplinary approaches while providing them with methodological training enabling them to

⁵⁹ At the time of this writing, Mutaz Al-Khatib was assistant professor of methodology and ethics at CILE as well as the Program Coordinator of CIS' MA program in Applied Islamic Ethics.

utilize and apply these approaches in their own scholarly research. This informant also pointed out another hindrance, namely that oil-rich Arab countries rely on hydrocarbons as their main source of income, which was described as “not the most environment friendly industry”. As such, this informant believed that this region “may be a very difficult context” in which to develop an Islamic discourse on environmental ethics.

Chauki Lazhar⁶⁰ provided a historical explanation for Muslim scholars’ general lack of contribution to important issues like the environment. He alluded to a rupture between political and religious authority early in Islamic history that gradually “isolated the religious authority from the big issues, from the social concerns”. This rift, according to Lazhar, stemmed from religious scholars and jurists initially seeking to isolate themselves from political leaders due to corruption. As a result, religion lost its influence on important social, political and worldly issues of common interests while becoming relegated to addressing specific issues concerning individuals or matters related to salvation and the hereafter. He argued that this rupture hindered a paradigm shift and the formation of a new epistemology. He also believes this rift is partially responsible for scholars – particularly traditional religious leaders and scholars [*shuyūkh*] – not caring about the environment.

Aside from the broader historical factors and present-day challenge of lacking sufficient scholars and researchers with the requisite interdisciplinary/transdisciplinary academic backgrounds, informants provided

⁶⁰ Chauki Lazhar served as Deputy Director of CILE and was also a lecturer at CIS at the time of this writing.

several other pragmatic explanations for the relatively superior progress of other contemporary disciplines like bioethics and Islamic finance compared to Islamic environmental ethics. Al-Khatib argued that advancements were made in the field of bioethics, for examples, due to the existence of international law and clear legislation in various states governing medical practices in hospitals and the broader health system, which both necessitated and facilitated scholarly deliberations on medical issues from Islamic ethical and legal perspectives. In contrast, he noted that “there is no clear position” on the environment from the U.S.A. and other powers, which he attributed to a lack of readiness “to pay the cost of establishing laws or legislation in this regard”.⁶¹

As for Islamic finance, Al-Khatib noted that development of this field was viewed as a necessity due to Muslims—particularly those in the Gulf region—dealing with large amounts of wealth. He explained:

This is why even the commercial banks in the world try to open an Islamic window to attract this money; so it's a matter of pragmatism, it's not a principle issue. So at the end we are dealing with benefits, commercial benefits. We need that money, so to [entice you to] invest, we can make it Islamic for you as you will get us your money. So there are practical dimensions, and it's part of the system at the end.

Lazhar offered another detailed explanation that positions Muslims' responses in relation to developments in the West. He argued that Muslims initially were dealing with “urgencies and emergencies” due to a perceived clash with modernity in which they needed to “*cope* with this reality”. He explained that the first attitude reflected a desire to develop and grow like the West, which led to Muslims adopting Western

⁶¹ This comment was made specifically in reference to the U.S. exiting the 2015 Paris Agreement under the Trump administration.

approaches and even justifying it religiously. This attitude evolved into a more nuanced one in which Muslim scholars sought to differentiate between the good and the bad, and to argue for avoiding any practices, such as usury (*ribā*) that violate Islamic principles. In critiquing this attitude, Lazhar noted that it adopts a purely *fiqhī* approach to finance and the economy as opposed to considering the prevailing worldview and dominant ideology. He states:

So it's a very technical approach, and it's not like there is no global philosophy of economics and finance which will be applied to develop something alternative. It's just a *fiqhī* (legalistic) approach. The *fiqh* did not change. It is just a fragmented, very partial approach in order to do the same thing, but in a *ḥalāl* (permissible) way—so, to be like the West in a *ḥalāl* way; and this was an emergency. Of course, we can understand this in the beginning because you cannot come up with a real alternative without first of all understanding what's happening, and then trying to evolve step by step; and this is how those things developed because they need urgent answers to these situations.

According to Lazhar, even though the *fiqhī* approach is not considered adequate for addressing financial and economic issues, he argued that it is relatively more adapted to addressing finance or bioethics than environmental issues because of the existence of sub-disciplines and scholarly works within *fiqh* focusing entirely on financial transactions and medicine. While *fiqh* may be suitable for addressing practical issues concerning particular individuals, Lazhar noted that the *fiqhī* paradigm of “*ḥalāl* [permissible] and *ḥarām* [prohibited]” is not equipped to address environmental issues, which he believes requires changing models and considering future consequences. Lazhar also believed environmental issues are not a priority for Muslims because these issues do not occupy an urgent place in Muslims’ global consciousness in comparison to other issues deemed more pressing. He stated:

We cannot see immediately, even now we are starting to see things, but we cannot see immediately the effects of global warming on specific, immediate, particular issues. And yeah, like I said, it's more urgent to think about the future of the Muslims and how they will grow, how they will compete with the West than to think about what we will leave for the future generation. This is something that a lot of Muslims don't see as a priority or as an emergency.

I asked Lazhar if this perspective is considered a reductionist view of environmental concerns, considering how scientists are actively revealing current—not only future and projected—effects of climate change.⁶² He mentioned that, in addition to the need for a non-*fiqhī* approach to the environment, more awareness is required within Muslim societies about present-day environmental problems.

According to some informants, Muslims also do not prioritize the environment because they consider themselves absolved of solving problems caused by other global powers. Speaking on behalf of other Muslims, Al-Khatib stated: “we are not responsible to solve the problem that was put forward from others. We have enough problems to solve”. Even though the Muslim world’s contribution to global environmental problems like climate change pales in comparison to that of countries like the U.S. and China, the perspective Al-Khatib shared on behalf of other Muslims can be considered a copout from taking responsibility for reforming environmental attitudes and practices that often contradict Islamic tenets and teachings.

Gaining awareness of environmental issues and making them a priority is insufficient according to some informants who problematized the ways in which

⁶² Examples include increased wildfires, droughts, melting glaciers, sea level rise, desertification, habitat/biodiversity loss, and changes in species distribution and sex ratios of (temperature-sensitive) marine and terrestrial organisms.

Muslims often target certain environmental practices while not speaking against flagrant human rights violations or social justice issues in the region. For example, Al-Khatib, argued:

We cannot just criticize using plastic bottles while we keep silent about using chemical weapons in Syria, or wherever, or Iraq, and the weapons that are coming that America and Russia is selling all the time. It seems like *'abath* [frivolity]. We are much busy with the plastic bottles, while nobody is talking about the weapons. Every year, America, Russia tested like 165 types of weapons in Syria only.

Aside from the necessity of developing more advanced scholarship in the field of the environment, Al-Khatib noted that activists also need a more comprehensive understanding of social and political realities so as not to reduce environmental problems only to individual behaviors and actions.

Even though activists may exhibit a genuine desire to promote more environmentally friendly lifestyles, it is evident from multiple informants that some activists' single-minded approach to environmental issues does a disservice to environmental movements in Muslim societies such as Qatar. Not only does their approach make it easier to dismiss environmental causes for appearing superficial and insensitive to the human plight of victims of war and oppression, but they also demonstrate fragmented, reductionist, and apolitical thinking that fails to address root problems of the environmental crisis and critique economic structures and political powers profiting from imperialist agendas or extractivist/arms industries at the expense of both indigenous/local peoples and their natural environments. Islamic scholarly and activist discourses require greater religious, social and environmental literacy reflecting deep cognizance of complex contemporary realities as well as greater courage to speak about these truths. Moreover, assessing

socio-environmental issues properly and advancing Muslim thought on the environment requires more clear demonstrations—from Muslim scholars and activists—of the links between social and environmental justice as well as the social, political, and economic systems perpetuating both human suffering and environmental degradation and destruction.

In addition to internal intellectual challenges, informants also presented different explanations for why Muslims' contributions to Islamic environmental discourses lag behind Western environmentalist discourses. Joseph Lombard, Associate Professor of Qur'anic Studies at CIS, HBKU, problematized how Muslims generally "play catch up" with Western intellectuals. He argued that Muslim intellectuals often fear being trendsetters and wait until issues become significant in the West before those issues become salient in their writings. This reactionary approach, he posited, is often marked by a wholesale import of Western discourses and paradigms rather than a deep exploration of Muslims' own religious and moral tradition. According to Lombard, when Muslims respond to "intellectual prompts from outside," they often fail to create or employ paradigms from their own tradition in order to understand and conceptualize the world and the issues people face. He considered the environment as the "very best example" of this problem, considering how extensively the Qur'an addresses the created world as signs of God worthy of contemplation and care. In terms of methodology, he believed the first step is to expound the Qur'anic paradigm more broadly—after which this paradigm can be employed for the purpose of addressing issues like the environment.

Lumbard noted how even the renowned Muslim scholar and philosopher Seyyed Hossein Nasr, whose intellectual contributions to environmental discourses began in the 1960s, uses a Western philosophical framework to discuss environmental issues. He states:

One of the things that's very interesting with the work of Seyyed Hossein Nasser is that although he discusses the environment, he really is - and he draws a little bit on the classical Islamic tradition - he really is doing it within a Western philosophical framework. Even if we could say that the *ethics* that he's imparting are fully grounded in the Qur'anic revelation, he doesn't make that link in his writings. He makes it occasionally, but to fully flesh it out, he doesn't really make that link. And so that's actually - it's actually kind of surprising on the one hand to us now, but it's not surprising on the other hand because he really was writing within the Western academic framework.

Lumbard added that the fundamental principles needed to understand the world are already found within the Qur'an, but Muslims remain "stuck in a game of trying to play catch up with the West such that we're trying to impose non-Qur'anic frameworks and paradigms on the Qur'an...and prove this or that modern theory through the Qur'an." This perversion in methodology points to a superficial relationship with the Islamic tradition in which both Islamic scripture and scholarship are exploited or referenced merely to demonstrate Islam's compatibility and relevance within the modern world.

Conversely, other informants explained how some Muslims reject environmental concerns because of their perceived origin in modernity or Western sources as opposed to religion or the Islamic tradition. Lazhar problematized this view on epistemological grounds, stating:

The problem is that we don't assess those things on the right epistemological basis by having an Islamic epistemology that is coming from the text as a parameter, and not taking the parameter of

tradition—because often what is used is the parameter of tradition, while this parameter should be questioned and should not be a parameter because how can you have a parameter that itself is in need of revision? You need a parameter that is not rooted in tradition but rooted in revelation; and if you use the parameter of tradition, then if you apply it on modern issues, then you can say this is not Islamic, it's not rooted in our tradition, so it's modern, so it's coming from the other, and it's just a reaction—but this is a problem.

Lazhar clarified that he is not dismissing the value of the entire Islamic tradition and its scholarly contributions throughout Islamic history, but critiquing the adoption of certain narrow models and epistemologies emanating from this tradition that, for example, limit knowledge production and defining what is 'good' or 'bad' only to what is found in scripture as opposed to believing other sources (e.g., the universe) have epistemological or ethical value and can play a role in knowledge production. As such, he argued for questioning traditional methodologies and epistemologies still used to assess contemporary issues and calls for liberating them from historical limitations in order to produce new parameters and models of thinking.

Multiple informants critiqued various extremist approaches, including narrow-minded imitation of/reaction to the West or unyielding rejection of anything modern or Western often coupled with stringent adherence to fixed models of traditional Islamic thought. The more balanced and desirable approach based on multiple Islamic scholars' views is rooting Muslims' vantage point firmly within Islamic scripture (as opposed to tradition) such that Muslims conceptualize the world and assess contemporary issues in fields like economics, politics, and the environment through the lens of Qur'anic and prophetic principles and teachings. Proper conceptualization requires becoming equipped with suitable epistemological and methodological tools in order to confidently spearhead intellectual discourses

and advance human thought and practice in alignment with an Islamic worldview and with divine purposes and objectives. This latter approach paves the way for healthy forms of transdisciplinarity that root Islamic discourses within Islamic scriptural paradigms and frameworks while enriching Muslims' intellectual contributions with knowledge from different disciplines without diluting or conflating Islamic scholarship with 'external' ideas or theories considered incompatible with or antithetical to Islamic scriptural foundations and truths.

6.2 Contemporary Debates in Islamic Environmental Discourses

In discussing environmental thought with scholars of Islamic studies and ethics in Qatar, one of the emergent themes revolved around the ontological role and function of the human being. Several informants emphasized the need to reconceptualize the human being as a *'abd* (slave/servant) of God as opposed to an independent being. Joseph Lombard argued that the concept of *'ubūdiyya* (slavehood) implies *faqr* (poverty) and the notion of being "completely impoverished before God".⁶³ He insisted that centralizing *'ubūdiyya* in the conception of human beings requires a complete paradigm shift since "we are not encouraged by modern paradigms to conceptualize ourselves as *'abd*". According to Lombard, anthropocentrism is not the real problem. He argued that people will always view creation from an anthropocentric standpoint, and jokingly compared this perspective to how dogs have a "canine-centric view of creation". Rather, he argued the problem arises when anthropocentrism becomes egocentric or "*nafs*

⁶³ See section 3.2 for a more detailed discussion of this concept in contemporary Islamic environmental literature.

(self)-centric” and human pursuits revolve around base desires and “self-gratification”. Yet, when the human being prioritizes *‘ubūdiyya*, the belief is: “every power that I have, every ability that I have is given to me from Allah *subḥānahu wa ta‘ālā* [Almighty and Exalted]; and I execute it in the name of Allah *subḥānahu wa ta‘ālā* as *‘abd Allah*.” *Taskhīr* (serviceability) of creation,⁶⁴ then, is afforded to the human being as *‘abd Allah* and perceived as a “fantastic gift” as well as a test or trial.

Other scholars echoed the need for a paradigm shift that centralizes *‘ibāda* (servitude/worship) as part of the human being’s ontological role on Earth. Lazhar considered *‘ibāda* as the faithful performance of the function assigned to any particular creation. He stated that everything worships God in different ways. Just as the sun, for example, worships God through emitting heat and ultra violet radiation, the function of the human being is to be a *khalīfa*.⁶⁵ After describing God as *al-Mudabbir* Who manages the universe, he explained that God “gives a part of this management to the responsibility of the human being” and asks the human being to manage “as God would manage”. Although Lazhar mentioned that the human being cannot attain this level of perfection, he believes such management is still the divinely ordained mission of the human being. He then detailed three overarching realms in which the human being is responsible for this management. The first is:

[T]he management of his own inner world, his soul - and here it's like a management of everything that is happening inside of you in order to be faithful to your human nature; so the management of a whole set of things: your emotions, and your aspirations, and your spiritual aspirations and physical aspirations, and things that happen in reality, difficulties. All those things, you manage them in order to be a human

⁶⁴ See section 3.2 for an explanation of this concept.

⁶⁵ See section 3.2 for a more detailed explanation of this concept and an overview of contemporary scholarly debates about its meaning and implications.

being that is as close as possible to the *fiṭra* [innate disposition]. This is the first thing. And here, it's obvious that it's not God who is managing – or else, everybody would be a good human being. So this is where our first responsibility lies.

The second realm is human relations, which includes social and political relations as well as economic affairs. He emphasized that God also delegated this area of management to human beings, which is evident through the numerous, ongoing social and political conflicts throughout the world. Managing the rest of God's creation, according to Lazhar, is the third area of management assigned to human beings. This management includes both caring for the earth and using its resources in the best of ways, as opposed to merely preserving them without alteration or utilization. Within this paradigm, environmental care and protection are considered central acts of worship and of the primary ways through which human beings fulfill their God-given role on Earth.

Multiple informants heavily criticized modern views within contemporary Islamic scholarship that challenge Islamic anthropocentrism and seek to decenter the human being within the sphere of creation or strip people of the role of *khilāfa* (as delegate/vicegerent). Scholars critiqued these views on methodological, historical, and practical grounds, arguing that such views break away from centuries of Islamic and traditional scholarship while leading to more harm than benefit for social and environmental justice causes. Lazhar expressed his disagreement with the belief that *khilāfa* is a modern notion and refuted the claim that the meaning of *khilāfa* as vicegerency did not exist in early Islamic history. He states:

We can find this [understanding] even from the *ṣaḥāba* [Muhammad's companions], some of the *ṣaḥāba*, in their opinions, until [Al-Rāghib] al-Aṣfahānī, and a lot of other scholars who are saying that the *khilāfa*

is an existential function for any human being, that he is *khalīfatu'Allah*, etc.

Mutaz al-Khatib shared a similar argument while emphasizing that, according to classical Muslim scholars, not every human being qualifies for the role of *khilāfa*:

I don't support this new discourse about decentralizing the human being because *they* think—those who call for this discourse, think that we are—the human beings themselves—are the cause of this damage in the environment...This is a misunderstanding of the concept of *khilāfa*. If we go back to the concept of *khilāfa*, when it was discussed *clearly* in the fourth Hijri century, especially within the moral or ethical discourses; so this concept was *existing* in the context of ethics; so the Muslim ethicist talked about *khilāfa*. In which sense? They talked about *khilāfa* in the sense that the human should imitate God and to be his *khalīfa* on the Earth. How he will achieve *khilāfa*? He will achieve *khilāfa* based on his self-purification and good behaviors. So *khilāfa* is a responsibility, not a privilege. So not every human being is *khalīfa* in that discourse. You can achieve the *khilāfa*, *khilāfatu'Allah* in a specific way, but you are not eligible. Not every human being is a *khalīfa*. If you do bad actions, you will not be *khalīfa*. We can find this with Al-Rāghib al-Aṣḥānī, for example. We find this with [Abū al-Ḥasan] al-Māwardī, we find this later with [Abū Ishāq] Al-Shatibi, and others. Al-Rāghib al-Aṣḥānī was very clear about this because even he established the moral discourse based on *khilāfa* even. So now, these people [rejecting the traditional understanding] are not aware, I think, of the background, historical background or traditional background of that concept of *khilāfa*.

He added that contemporary scholars who have challenged the traditional understanding of *khilāfa* impose their own preconceived notions and ideas on Islamic scriptural texts while not being methodologically trained in the classical Islamic sciences (e.g., Islamic philosophy, Sufism, *fiqh*, Qur'anic sciences)—which have all traditionally centralized the human being in their discourses.

Another anonymous scholar emphasized the difficulty of decentering or demoting the human being with respect to the rest of creation and considered this

approach an attempt to accommodate particular secular trends in modern environmental thought. This informant stated:

I think the cornerstone of secular environmentalism is - or at least according to some approaches and discourses - is that you move the human being from the center of the universe; and so the human being *does not* have that status which *is* above other creatures, specifically non-human animals. We have now some researchers who think that we can accommodate this approach. I personally think it is not really possible, it's almost impossible to remove the human being from the center of universe, or to say that the human being is not the cream of creation. It's a trial - extremely difficult to my mind. I had long discussions with Sarra Tlili about this issue. She thinks that, to a certain extent, we can accommodate this in the Islamic tradition. I find it completely problematic.

In explaining why this approach is problematic, this scholar asked:

What are you going to do about the prophets who are sent to humans but not to other creatures? What are you going to say about the *taklif* [divine commission/accountability], which is only for humans not for the other creatures? ... It's very difficult, extremely difficult. What about so many rulings in Islam in which some species are sacrificed for the sake of the human being?...We have Eid al-Adha.

Mutaz Al-Khatib echoed a similar concern regarding the *udḥiya* (sacrifice) during Hajj, arguing that such essential Islamic rituals cannot be ignored or jettisoned in an attempt to “cancel the hierarchy” or reclassify creation. Other informants problematized these non-traditional views based on the reality of human beings being more inherently capable of transforming the earth than other creatures. Lumbard, for example, who affirmed the traditional understanding of *khalīfa* as God’s vicegerent/representative, highlighted the power of human beings and reiterated the necessity of adopting the identity of God’s servants before fulfilling the role of *khalīfa*:

In that particular passage [Qur’an, 2:30], clearly the idea is that this is a *khalīfa*, this is a representative of Allah *subḥānahu wa ta’ālā*

[Glorified and Exalted] on the earth. Now, when people have conceptualized that in terms of the *ḥuqūq* [rights] that it gives us, and *only* in terms of that, rather than in terms of the responsibilities that it entails, that's where the problem comes in. But no, the fact that the human being is in fact - you just look at what we are able to *do*, then you understand there is—it sounds almost blasphemous to say it—but there is no creature that is *astaghfiru'Allah* [seeking refuge from God] godlike in terms of the *range* of its possibilities and the power that it can wield. We actually have, through scientific endeavors, created the capacity to destroy the earth. That's pretty *amazing*...and that is pointing to that entire function of being a *khalīfatu'Allah fī'l-arḍ*. So what does it really mean to do that? And that's where you have to, in a sense just kind of embrace the kind of *awesome power* that the human being has been given, but realize also the awesome responsibility that the human being has been given and that we are *'abd Allah* before we were *khilāfatu'Allah* and so long as you *combine* the *'abd* with the *khalīfa*, then you'll be a good *khalīfa*, and you make the *'ibāda* first.

Lumbard also believed that, while everyone is inherently capable of being a *khalīfa*, the corruption of one's *fiṭra* (innate disposition) can compromise one's ability to fulfill the role of vicegerent properly.

Yet, all the scholars discussing *khilāfa* during my interviews maintained it as an existential function of the human being, irrespective of whether or not particular individuals may be deemed ineligible at any given time due to their current spiritual status or engagement in sinful acts. These informants perceived *khilāfa* in its traditional understanding as helpful to environmental causes because it centralizes the importance of human responsibility and accountability before God. Decentralizing the human being, on the other hand, was considered counterproductive as it was perceived as an attempt to undermine the value and dignity of the human being as well as any local and regional struggles for human rights and social justice. Al-Khatib even described these attempts to decenter human beings as “giving the animals priority while people here in this region are suffering

and they don't have any rights". He also criticized the ways in which such non-traditional approaches seek to reinterpret the Qur'an without speaking about Western modernity and the primary powers in the world deemed responsible for causing the global environmental crisis.

Although these informants unanimously opposed decentering the human being within the broader realm of creation or stripping human beings from the God-given role of *khilāfa*, they stressed the importance of interpreting this concept within a framework of slavehood and responsibility, as opposed to one of privilege and honor that grants people freedom to act however they please. One anonymous informant suggested revisiting the concept of *khilāfa* within an environmental context to emphasize how human behavior should aim to achieve both long-term *manfa'a* (benefit) and avoiding future harm for both people and non-human communities. In exemplifying this point, this informant said:

Imagine that in Brazil they have a serious need for housing. So we need to deforest the Amazon, or large parts of it, for the benefit of the human beings so that their people can have housing. Traditionally speaking, we can say: yes that's fine because it's for the *maṣlaḥa* of the human being, and these are just plants so why not? I would say no, this is very shortsighted and narrow-minded because this will lead to great difficulties for the human being, not some human beings. So the calculation of the harm and the benefit need to keep in mind and into consideration the moral standing of other creatures, the moral standing of the universe, etc. We need to give more weight to these things because we need these things in order to survive as humans. So even if we take centrality of the human being in the universe seriously, then we have to reconsider their standing.

This informant insisted on the possibility of developing "environment friendly ethics even if man is in the center of the universe". While they believed the moral standing of human beings must be upheld – albeit reconceptualized – they stressed the need

for radically changing and improving the moral standing of other creatures, particularly animals. They argued that revisiting the moral status of animals necessitates changing many practices, including animal treatment in the context of industrial farming as well as using animals for drug testing and scientific research. According to this informant, the moral standing of natural resources is also important. They stated:

If we respect the dignity of the human being, the human being cannot live without a universe that can accommodate his or her needs. So we must have oxygen. We must have water. We must have four seasons in the year, etc. If we, in the name of *khilāfa*, are going to damage the universe, then it is completely wrong.

While this perspective appears to frame environmental protection in purely anthropocentric terms, other informants used a nature rights framework to emphasize the importance of caring for other creatures and the environment. For example, Lombard explained:

Everything has a *ḥaqq* [right], and the *ḥaqq* of something is both its reality and its due, its right; and if you were to frame it in *that way*—because Allah *subḥānahu wa ta‘ālā* is *al-Ḥaqq* [the Truth]—and you would frame it in every way that everything else has its *ḥaqq*, and its *ḥaqq* is where that thing stands in relation to Allah *subḥānahu wa ta‘ālā* and where I stand in relation to every other thing *around* me has to do with my *ḥaqq* in relation to God and the *ḥaqq* of that thing; and so then you’re actually almost putting in the relationship of the *‘ibādāt* [worships] and *mu‘āmalāt* [relationships/transactions] at the same time, which is recognizing both the vertical axis and the horizontal axis at the same time...If you conceptualize it in terms of *ḥuqūq*, it gives you both a metaphysical framework and a legal framework at the same time; and the language is right there within the Arabic, and within the way that the Qur’an discusses animals, and the way that it discusses nature in general, and the way that the Hadith discuss nature. I mean *trees* have a right. Animals have a right, water has a right, air has a right, and water has a *ḥaqq*, and your neighbor downstream from you has a *ḥaqq*. So for example, you’re living in a Muslim country. You can’t build a dam. You literally - it’s a violation of nature and of the rights of everybody to build a dam—

unless you get a signoff from everybody downstream, and it's not a permanent structure.

This nature rights discourse elevates the moral standing of non-human creation through appreciation and respect for the intrinsic value of nature as God's creation to which He assigned particular rights. Rather than considering human beings' responsibilities toward the environment or how to merely enhance human benefit through improving the state of the natural world, this perspective shifts the focus toward recognizing the intrinsic worth of every animate and inanimate creature – irrespective of human benefit – while seeking to fulfill faithfully each creature's individual rights.

In addition to reconceptualizing *khilāfa* and centralizing concepts like *ʿubūdiyya* (for human beings) and *ḥuqūq* (for nature), other informants also highlighted the value of approaching environmental questions using an *i'timāniyya* (trusteeship) approach.⁶⁶ In suggesting this idea, Al-Khatib stated: "...at the end, this is *arḍ Allah* (God's land/earth). *Arḍ Allah* means that my actions are restricted to such law that I'm not fully free to do whatever I like; so, even if I'm an individual person, or state, I'm not free." This idea was discussed as a complement to the concept of *ʿubūdiyya* (mentioned above) as well as *milkiyya* (ownership), which acknowledges God as the True Owner (*al-Mālik*) of the universe Who created the laws intended to govern human action on every piece of land on Earth.

⁶⁶ See footnote in section 3.2 on trusteeship in the context of defining the term *khilāfa*. The concept of trusteeship has been discussed at length within multiple Islamic disciplines throughout Islamic history. More recently, Mohammed Hashas and Mutaz al-Khatib (2020) co-edited a volume of the *Studies in Islamic Ethics* journal discussing the trusteeship paradigm in the philosophy and work of Taha Abaderrahmane, a contemporary Muslim ethicist philosopher. The volume is entitled *Islamic Ethics and the Trusteeship Paradigm: Taha Abderrahmane's Philosophy in Comparative Perspectives*.

Based on interviews conducted with Islamic scholars and ethicists in Qatar, the ontological role and existential function of human beings appears to play a critical role in advancing contemporary Islamic environmental thought. While some Islamic studies scholars based in the West appear to conform to secular trends in modern environmental thought that decry anthropocentrism for its complicity in environmental damage and destruction, almost all Arab and Muslim scholars whom I interviewed in Qatar insist on the necessity of maintaining an anthropocentric approach to socio-environmental relations. Although some informants proposed reconceptualizing *khilāfa*, most viewed the traditional understanding of this concept as beneficial to environmental causes and considered the centrality of human beings in the universe as reinforcing the importance of human responsibility and accountability for rectifying the wrongs people have committed against the natural world.

Although contemporary efforts to propose non-anthropocentric readings of the Qur'an claim to not devalue human beings,⁶⁷ several informants perceived this scholarship as effectively demoting human beings from their status above other creatures. Lazhar, for example, described one of these attempts as “putting the human being at the same level of animals”. Al-Khatib similarly described it as “decentralizing the human being and giving the animals priority”. While some of these efforts indeed challenge the notion of human beings being god-like stewards at the apex of creation (Tlili, 2012, x), their approach focuses less on degrading or devaluing human beings and more on elevating the status of other creatures and

⁶⁷ See, for example, Tlili (2012, xi).

refuting their inferiority by highlighting their special status before God. In doing so, these scholars advocate ecocentric readings of the Qur'an couched within a broader theocentric Islamic worldview (Tlili, 2012). Yet, by challenging traditional conceptions of *khilāfa* and arguing for the implausibility of an Islamic anthropocentric perspective (Tlili, 2020), these attempts appear to debase and decenter human beings in the process of demonstrating the exalted status of other creations.

Some informants believed such attempts to decenter human beings not only break away from understandings established in the Islamic tradition for centuries, but also impose preconceived ideas on Islamic scripture without following proper methodologies followed in the Islamic sciences. These attempts were also criticized for pitting the blame on Muslims for environmental problems in requiring Muslims to reinterpret Islamic scripture and reform their environmental practices. Although informants acknowledged the necessity of reforming Muslims' environmental behavior, they believed that such calls do not address the root causes of major environmental problems or call out world powers believed to be responsible for global environmental challenges like climate change. Some informants believed the moral standing of non-humans does indeed require radical improvement within contemporary Islamic environmental thought, while others proposed that a paradigm shift centralizing concepts such as *ʿubūdiyya* and *iʿtimāniyya* is what is needed for improving socio-environmental relations. Yet, others considered focusing on the rights of nature as critical for promoting greater environmental care and protection. These differing views demonstrate some of the existing tensions

and disagreements in contemporary Islamic environmental thought between some Muslim scholars in the West and the Arab, Muslim world. Although some of these perspectives appear to diverge in their understanding of the divine role granted to human beings, their convergence in supporting discourses advancing the value, rights, or moral standing of other creatures reveals potential for directing future contemporary Islamic environmental scholarship toward promoting greater respect, appreciation, and humility toward non-human creation.

6.3 Obstacles to Bridging Theory with Practice in Qatar

While Islamic scholars in Qatar agreed on the need to advance Islamic environmental thought in the light of contemporary challenges, they affirmed the richness of the Islamic tradition and religious scriptures in ethical meanings, teachings and values supporting an ethic of care, moderation and responsibility toward the natural world. Multiple references were made to prophetic traditions regarding planting seedlings even if Judgment Day comes; conserving water even when making ablution on the bank of a flowing river, and only filling a third of one's stomach with food (if just a few morsels are insufficient). Yet, when it comes to environmental practice, a gaping rift is observed between Islam's environmental ideals and Muslims' consumptive habits and behaviors toward the natural environment and other living creatures. As one anonymous informant phrased it, "environmental ethics is *one* of these things where the gap between what *we* think is good and what *we* do is really huge, specifically in Muslim societies now—especially rich Muslim societies like the Gulf region". My interviews with Muslim scholars, scientists, and academics explored some of the reasons behind this disparity,

particularly in the case of Qatar. Informants raised multiple concerns related to individual attitudes, behaviors and broader cultural norms that contribute to widening this gap between theoretical ideals and environmental practices.

On the individual and arguably more superficial level, several scholars initially criticized people's excessive shopping/overconsumption and subsequent waste, which some believed was due to merely having more wealth and affording the purchase of large quantities of food from supermarkets and restaurants. One anonymous informant explained: "I remember when I came here to Qatar, I have seen this sign when you get into the supermarket saying that please think before you buy. I thought this is what everybody does; but when you see how people do it, it's needed. It's needed. People just buy because they have money. So there is overconsumption." In discussing the phenomena of overconsumption, Director of the Gulf Studies Center at Qatar University Mahjoob Zweiri also problematized people's feelings of disconnection from the natural world—irrespective of socioeconomic status—and lack of feelings of ownership toward the natural environment. He stated:

I mean even people who are not really wealthy, the way they deal with water, the way they deal with environmental issues, they don't feel this belongs to them. You drink the water and throw the bottle in the street. You don't know what it means, throwing the plastic in the street, tissue in the street for example. You are driving, and you find people just [tossing] from the window. You know these are things that shows you that the culture is not being built yet. There are people who are amazing, who behave well and are very committed to it. But they have this 'disconnectivity.' They don't believe that this environment actually is part of us and that we are part of it, and we should be *ḥinayyinīn* [affectionate], we should be nice to it so it can also be nice to us; and I think that will need a little of education.

Echoing similar sentiments, Radhouane Ben-Hamadou,⁶⁸ lamented the lack of commitment to environmental ethics observed in the behavior of the average person within society. In teaching a course on the marine environment and human development at Qatar University, he dedicates one third of this course to focusing on environmental ethics. One of the pillars of sustainability he covers is the concept of sufficiency. Ben-Hamadou described this concept as it relates to consumption and minimizing one's impact on the natural environment (of which he considered people are a part), stating:

[S]ufficiency is the fact that you are able to get something, but you don't get it because you believe that you don't need it....And *that's...really* very Islamic. I don't know for you, but I think...we fast one month in the year and during that month eating is *ḥalāl* [permissible], but even eating and all the other things, normally in a normal situation, are not forbidden; but we are training during one month during the year, even for the things that would not be forbidden, that we are able to retract from them; and that's sufficiency—and the fact that if we are able to change our lifestyle, our consumption rates let's say; you are able to on a daily basis, on an hourly basis, every time you are considering not the environment, but yourself as one element in this environment; having your own impact in as minimal as it could be, you should play your role...and that's perfectly Islamic. Saying that you are responsible for your deeds, you are not responsible for the others' deeds. So you do what you should do, even if all other people are not doing what they should do. So that's environmental ethics - not directly because of the environment but because of your responsibility as a person within that environment.

Environmental scientists, like Ben-Hamadou, who promote environmental ethics while regularly witnessing environmental degradation through their profession

⁶⁸ At the time of my field research in 2019, Radhouane Ben-Hamadou worked as an Associate Professor of Marine Sciences at Qatar University while serving as Department Head of Biological and Environmental Sciences at the same university. He also previously served as an imam for nine years in Portugal and, at the time of my field research, served as (“honorary”) president of three Islamic associations in Portugal.

exhibited a palpable frustration with the disparity between people's professed beliefs and their environmental habits and practices.

While discussing reasons why Muslims in Qatar and the broader region demonstrate a weak commitment to environmental ethics, many informants, including environmental scientists, religious studies scholars and experts on the cultures and societies of the Gulf region, problematized the superficial and reductionist approach to religious practice as one of the primary obstacles to reconciling people's environmental behaviors with religious ideals. Ben-Hamadou illustrated this problem by describing one of his students complaining about her child not memorizing Qur'an while being negligent about reusing the same water bottle to avoid plastic waste. Afterward, he pointed to his own bottle and said:

That bottle of water, that's the water that I use since I don't know how much. I use it to bring water from home...Your daily things: you come out, you switch off the light; those small things - they are *completely Islamic*. They are *inside, really inside* the Islamic meaning of your role as guardian in this world. So we are guardians, and that's our responsibility.

Fethi Ahmed, a faculty member at the College of Islamic Studies at HBKU and Research Coordinator for CILE (at the time of this writing), approached this religious disconnect from another angle. He problematized the confined application of the concept of *'ibāda* only to ritual worships and practices, as opposed to a broader spectrum of human behaviors—including how people interact with the natural environment. He explained:

'Ibādāt [worships] to them means prayer, fasting – the five *'ibādāt* – and they don't go beyond that. For example, if you tell them: if you harm the environment, you are going far away from your religious duty, they will be surprised – “How come? Is this a religious duty?!” They are not *aware* that that is also *'ibāda* - to respect others, not to

kill any animals if there is no need, not to burn the grass or trees, for example, to keep the water clean. Many fishermen they go to the sea, they pray in the sea. Even *zuhr* [second obligatory prayer of the day], *ʿaṣr* [third obligatory prayer of the day], night prayers, whatever. They pray, but they won't be reluctant to throw away all the rubbish in the sea, and they don't see it as a sin for example...[M]any people do not care. They go to, for example, some of the beaches here, and they throw their rubbish on the sand—even if the bins are there. They even point to the bins in big signs, but they don't follow.

Although many informants criticized wastefulness, overconsumption and environmental pollution/degradation observed on an individual level, some informants framed these behaviors as symptomatic of a broader culture within a Muslim society that trivializes Islamic behavioral ideals and privatizes religious practice while inadvertently promoting double standards in environmental education and practice. When I asked Zweiri to elaborate on the disparity between Islam's ecological teachings and people's environmental behaviors, he said:

[I]t has to deal with the undermining...the culture of undermining all of this heritage. We don't take it seriously because first of all you know there is an assumption that Islam has nothing to do with public sphere...Basically you can pray, and after you pray you drink a bottle of water and throw it in the street; and you find it reasonable and fine...I mentioned that education normally highlights the importance of the environment, but those values or that idea or that narrative highlighted within the education system are not taken seriously within the same environment of the school. People throw the garbage in the street, in the classroom. They don't take care of cleaning their classroom. So that is the double character; you teach me something, and you don't hold me accountable for not implementing this.

Other informants believed that the problem stems from a theoretical approach to religious education that focuses on rote memorization of religious texts and does not yield or promote strong conviction and commitment to implementing the religious ideals contained in these texts. When I asked Radhouane Ben-Hamadou

why he thinks a gap exists between Islamic ideals and practices observed on the ground, he said:

[B]ecause the teaching, the way how it was taught is: God say this and His prophets say that, and we should do that....so we are not convinced about them...and we value more how much of the Qur'an you memorized than how much of it you are practicing on daily things; and that's the difference; that's completely the difference. For me is the way on how even the Day of Judgment, we will be coming in terms of *Ahlu'l-Qur'an* [People of the Qur'an], so this is the people who practiced the Qur'an - even if they didn't memorize anything of it - and will not be of *Ahl al-Qur'an* even those who memorized all of it, but didn't do anything of it; and that's the big difference; is the focus on teaching the words, and not focusing on practicing the meanings of the words. That's it.

Not only is religious education considered methodologically flawed and ineffective, but environmental education for the broader public is also deemed inadequate. While several informants acknowledged that some schools teach children how to interact responsibly with the natural world, other informants like Al-Khatib believed there is insufficient education available for the masses to understand how individual behaviors impact the environment both presently and in the long-term. He gave the example of plastic use, saying: "now, I don't see any direct impact if I will use the plastic. What will this make? It will not cause a problem in my...so we need *nashr al-thaqāfa al-'ilmiyya* [promoting a knowledge culture] – the basic general information that how this will affect negatively our environment and our world?"

While some educational campaigns exist promoting environmental education or waste reduction in Qatar and the broader region, multiple informants observed that these campaigns by and large do not incorporate effective spiritual and religious messaging. Zweiri stated:

I don't see with environmental campaigns that are inspired by Islamic ethics to my limited knowledge anything that connects our actions to the hereafter as Muslims, and even as people of other faiths where there's idea of karma and this idea that if I do good, then it will come back to me and you know *fiṭra* [innate disposition] in the sense of trying to do what is what is right because of *taqwā* [mindfulness of God] and consciousness at a higher level.

When campaigns choose to adopt an explicitly religious approach, the pedantic and fear-based messaging often results in propagating negative perceptions of both religion itself and the environmental causes these campaigns claim to support. One Qatari participant argued:

People might be *discouraged* by religion because, oh, it's another *āyā* [verse] where it's *ḥarām* [prohibited] I'll go to hell if I do this. OK. That's not a positive response for *me* to continue watching this educational video. You need to understand what *values* and *motivations* are relevant to *this* context if you want any change.

Multiple informants spoke of both legal and social accountability as potentially effective means of deterring people from wasteful or environmentally flagrant and destructive behaviors. One anonymous scholar said:

Like Sayyidna ʿUthmān ibn ʿAffān says: “*inna Allaha yazaghu bi'l-sulṭāni mā lā yazaghu bi'l Qur'an*”; with the power, you can achieve reform that Qur'an cannot achieve. So you can recite Qur'an for people the whole day that they don't lie, but if they know if they lie, they will go to prison, they will not lie. So you need also legal enforcement. So if people know that if they waste specific resources, things will also change.

This informant contextualized their statement, adding: “Like here in Qatar, I think maybe a couple of months ago, they made a very heavy fine for people who clean their cars with a hose.” Yet, participants discussed the inefficacy of such policies or legislation, especially when minimal to no enforcement exists or when wealthy individuals are willing to pay these fines—irrespective of the amount of waste or

damage they cause to the natural environment. Even when legal accountability has the potential to serve as somewhat of a deterrent, many informants like Zweiri believed that it will not “succeed in changing inner ethical orientations of people”.

Rather than depending on legislation and law enforcement, one Qatari environmental scientist believed the power to affect true change in Qatari society lies in social accountability. They explained:

So when you do a grassroots campaign, people self-monitor, people are watching each other as opposed to waiting for the government to hand you a fine. People *know*; so like I said, the way that the society is is that people care about their image. If you make it *socially unacceptable* to be environmentally unfriendly, you've hit the jackpot—*that's* sustainable. A law, a minister, a person, these are all changed at any second. These are controlled by businesses. But if you are able to tackle society from within, that's sustainable.

Relying on social accountability to change cultural norms may, indeed, spark widespread reforms to people's habits and environmental behaviors within Qatari society. Yet, this reform is arguably limited in its ability to shape individual ethical orientations for Muslims as it relies on extrinsic motivations rather than deep-seated convictions and religious paradigms that tie individual actions to higher spiritual meanings, religious objectives, and divine laws and boundaries, as well as spiritual consequences in the hereafter. While some participants believed the deleterious effects of fear-based religious messaging within environmental campaigns demonstrates the need to avoid religious references all together, the negative consequences of such religious messaging arguably points to the necessity of counteracting the weaponization of religion by using religious teachings to inspire hope and optimism in matters concerning the natural environment.

Rather than merely deterring people from committing environmental harms and wrongs by threatening people with divine infliction of additional (personal/spiritual) harm, Muslim environmentalists can inspire co-religionists to reform their environmental attitudes and behaviors through illustrations of the spiritual, social, and broader ecological benefits of respecting and caring for the natural environment. As much as Muslim environmentalists seek to reform socio-environmental relations using religious teachings, the higher goal of this work from an Islamic standpoint is ultimately reforming people's relationship with God and their commitment to living and actualizing the teachings of their religion more faithfully and holistically. Islamic environmentalism is, thus, not confined to aligning Muslims' behavior with Islamic ecological teachings or promoting the understanding that all acts, including conserving water and treating plants and animals with respect and gentleness, fall within a broader spectrum of worship.

As with the importance of demonstrating connections between the pursuit of social justice and environmental justice, one of the higher goals of Islamic environmentalism is arguably cementing in the Muslim mind the inextricable link between devotional practices and one's moral character and conduct. In addition to increasing ecological literacy and promoting social norms that make poor environmental decisions and practices socially unacceptable, Islamic environmental thought and activism in Qatar (and the broader region) can play a role in promoting greater understanding of the religious objectives of devotional practices such as prayer and fasting as they relate to social and ecological relations. These practices, which are often reduced to a mere fulfillment of religious obligations toward God,

are divinely designed to fulfill higher purposes, including inculcating mindfulness of God, enhancing spiritual and physical purification, and moral refinement. Reconceptualizing the higher purposes and worldly benefits of devotional practices is arguably a critical component of the requisite paradigm shift in Muslim societies, such as Qatar, that can ultimately lead to deeper commitments to applying Islamic ethical ideals in all aspects of life, including the treatment of other living communities and the natural world.

6.4 Role of Imams & Muslim Scholars' Contributions

Most of the Muslim scholars and academics interviewed in Qatar believed imams can play a more prominent role in influencing Muslims' beliefs and behaviors, particularly in relation to environmental attitudes and practices. As with the evident rift between Islamic environmental ideals and Muslims' environmental behaviors, scholars also pointed to the observed gap between imams' potential to address environmental issues and their actual efficacy and success in doing so. While some scholars believed laws can sometimes motivate people toward action more than religious or Qur'anic directives, Chauki Lazhar argued that religion and spiritual coercion can often stimulate change and action more than coercive power and laws. He described imams as intermediaries between religious scholars and the common people, and considered religious sermons as one of the important mediums through which religious knowledge and religious discourse produced by scholars are disseminated to the masses. Although religion was perceived as powerful in stimulating action, Lazhar believed imams and religious leaders need to utilize more creative means for outreach because Friday prayers are not inspiring

much change in congregants. He stated: “I think the problem now is that people don't even listen because you go there for twenty years and you hear the same thing, and it's not having any effect.”

Mutaz Al-khatib stressed the need for disseminating Islamic environmental thought as a way of both renewing and normalizing religious environmental discourses amongst imams and other religious leaders. He stated:

It's very important to have sessions and seminars on this and public lectures to disseminate some ideas and integrate these on the Islamic background and Islamic literature so it would be easier to convince imams and these people—to make them feel that like they are working and moving on the Islamic ground that they are familiar with, and to integrate the environmental discourse within the Muslim worldview towards the environment and to link that with the human action that we believe as Muslims that Shariah governs all our actions.

Fethi Ahmed emphasized the significant role of imams by indicating that Qatar has at least 4,000 imams delivering religious sermons throughout its mosques. He compared this number to the academic staff employed throughout all of Qatar University, which numbered at only about 2,000. In demonstrating the influence of imams, he explained:

People, when they go to the mosque, it's a huge difference. When they go to uni, they will study different subjects, and different interests, and different backgrounds; but when they enter a mosque exclusively to learn about the religion, all about their life, all about the impact of the religion on their life... and these imams, they actually can play a *vital* role in changing the whole mentality of the people, if they really have the knowledge, they have the opportunity, they have the freedom, and they are empowered and supported by the government. They can do a lot.

Despite this ideal role attributed to imams, their influence on the ground is stifled for multiple reasons. Ahmed problematized the marginalization of imams

throughout the Muslim world and the reductionist approach to their religious role.

He stated:

First of all, I think imams are - unfortunately in most of the Muslim majority society - they are marginalized—which means people do not think that they are relevant enough to give guidance and to support people; and this picture is similar to Islamophobia in the West because many of the governments in the Muslim world unfortunately, they portray imams are religious clerics, they simple and they just lead the prayers, and they shouldn't have a role in public affairs. This is one of the problems that they face.

Ahmed and other scholars also considered lack of ecological awareness and environmental knowledge one of the hindrances to optimizing the role of imams. Emphasizing this point, Ahmed quoted the well-known Arabic expression *fāqidu'l-shay'i lā yu'tīh* (one who lacks something cannot give it to others). Lazhar noted that *khaṭībs* (who deliver sermons) are positioned at a grassroots level and, thus, have a responsibility to raise awareness amongst the masses—unlike academics whose vocation does not always include grassroots advocacy or who do not necessarily have the requisite skills to address the common people. Yet, he noted that *khaṭībs* who lack awareness of particular issues are unfortunately unequipped to reach the masses effectively.

Not only is imams' lack of environmental knowledge a concern, but also their narrow-minded conception of religion, religious priorities, and the perceived influence of religion on practical, worldly matters. Ahmed argued:

Sometimes, unfortunately, some of them do not even believe in environment or these issues. They look at the religion only theological, purely theological - 'aqīda - perspective. Sometimes you hear *khuṭba* [religious sermon]—very, very, very rare in your life you hear a *khuṭba* about environment—but *khuṭba* about *tawḥīd* and belief in God or in the hereafter...Even last week I think it was all about the *adilla* [proofs], the arguments about the existence of God -

as if we are in debate haha - [between] philosophers...while we are in the 21st century, we are faced with many problems; unemployment, poverty, climate change - all of these are sided and we talk about the existence of God and whether we believe in the hereafter. *Alḥamdu li'Allah* [praise be to God], they are Muslims, and they are coming exclusively because they are Muslims, and they believe in God, they believe in the hereafter, they believe in the Qur'an, and the Sunnah. Give them something substantial so that they can go back and do something.

Other scholars concurred that they never or rarely hear any religious sermons addressing environmental issues. Joseph Lumbard stated: "I don't think I've ever heard a *khutba* that has environmental consciousness issues in it. I don't think I've ever heard a single one. I've heard some *khutbas* on family and things like that, but one that really focused on that, [no]." Lazhar also stated: "Now, never for instance we will hear an imam - I did not hear an imam going on the *minbar* [pulpit] saying this is part of *ibāda*, and this is part of worshiping God by preserving what He created for us, and those kind of things."

Even when imams address topics related to Islamic ethics or environmental issues, some informants problematized the incongruence of these imams' behaviors with their words along with an absence of deep-seated, indigenous environmental reform. Lumbard pointed out:

I've seen people give sermons about stuff that go on and be a polluter the next day because that happened to be in vogue. I mean this is the worst thing about environmental discourse - is that it's *vogue* in some places, and it's like if you pay lip service to it, or you go pick up on the beach, and then you go and you take two hour shower after you pick up on the beach. There is a lot of feel good environmentalism, which goes to a certain level and you kind of do need that to get a national movement going; but when that's all that happens...Frankly a lot of places, most of what I have seen regarding the environment in the parts of the Muslim world in which I lived in has been the rehashing of slogans that came from the West.

Radhouane Ben-Hamadou shared a similar critique, positing: “There's a lot of hypocrisy when it comes to regular teaching of Islamic values.” When I asked him to elaborate, he said:

Those Islamic values are taught in a Friday sermon, for example, or in a book. We say *mā shā' Allah* [(it is) as God willed], that's beautiful; but how you can see it on the daily deeds, not only of the listener or the readers, but also of the people who are – not pretending – but who are administrating those values? The people who are saying: ‘aaah, we need to protect the environment; the protection of the environment is in our beliefs, in our faith’, I tend to be a little bit cautious.

Other informants also critiqued the religious approach some imams take to addressing environmental issues. Lazhar encouraged framing environmental behavior as integral to the religion in the sense of gaining spiritual reward (*ḥasanāt*) for positive action and losing reward or gaining sins for wasting or polluting. Yet, he problematized how imams usually reduce the benefit of these behaviors to the spiritual reward of paradise in the hereafter, while not focusing sufficiently on the worldly relevance and benefits of such environmental change in this life. Other informants believed the religious discourse places too much emphasis on spiritual harm as opposed to using the concept of spiritual reward as a religious incentive.

One environmental scientist stated:

If people don't connect to any *khutba* on Fridays, they're not connecting to *āyas* that are usually - I would say sometimes they use the wrong *āyas* - things that are like *beware* or *negative* consequences. I think you should incentivize people instead of: it's a sin, it's a sin, it's a sin. But again, I don't think even if you say that this is likely to increase your *ḥasanāt*, that that would work. It's not! There's a disconnect. You wouldn't use things that are not a motivational tool to try and raise environmental awareness.

This Qatari informant noted how imams' sermons are scripted for them “before they walk through the door”, decreasing the possibility of any environmentally conscious

imam conveying meaningful environmental messages to their Muslim congregants. This point relates to another problem scholars identified, namely governments in Muslim countries not empowering their imams to adequately address environmental issues. Ahmed, for example, argued:

In some countries, they do not have the freedom to speak about public issues and the environment, and the *real source* and the root causes of environmental issues. Let's say, for example, an imam in Tunisia who wants to speak about the role of the government in pollution. Of course, he will be put in prison tomorrow or they will take him straight away after *jum'a* [Friday] prayer. That was before. Now it's better. But now, what they will say? They will say he is interfering. He is doing politics in – he's mixing religion with politics. Now they will say this; but before, they will take them and punish them.

As evident from the perspectives shared above, imams theoretically have great potential to influence environmental attitudes and behaviors of large numbers of Muslims in Qatar—albeit mostly male. Yet, scholars identified numerous factors stifling their influence on the ground, including the lack of freedom of speech along with their marginalization and the reductionist approach to their religious role in society. Scholars also critiqued imams' lack of environmental education as well as the ways in which they poorly prioritize religious subjects in their sermons or inadequately apply religious knowledge to worldly matters. Although Muslim scholars discussed the latter as separate problems, the link between these factors necessitates further reflection.

Governments not investing in the empowerment, education, and training of imams perpetuates their inability to effectively address environmental issues with sound scientific and religious knowledge in creative ways that motivate change in environmental thought and action. Even though imams may be positioned suitably

as intermediaries between religious scholars and the masses, their lack of freedom of speech heavily detracts from their ability to speak to social or environmental issues relevant to the daily life and practice of Muslims. This disconnect also perpetuates the marginalization of imams by many Muslims and solidifies the perception that these imams have nothing meaningful to contribute to environmental discourses or public affairs more generally.

Although environmental problems are intertwined with the political economy of the country and Gulf region, religious sermons can make a meaningful impact on people's religious understanding of the value of the natural environment and people's responsibility towards it without the government dismissing them as political or controversial. Environmental groups advocating for imam trainings can demonstrate to relevant government agencies and authorities the positive influence imams can have on Muslims' religious understanding of issues such as consumption, extravagance, wastefulness, and moderation. Even though the capacity to influence Muslims' environmental thought and behavior through religious sermons is reduced due to government restrictions and regulations, providing imams with the religious and scientific tools to contribute to environmental discourses can gradually change the perception of imams as disconnected from societal issues and public affairs while providing them with the religious space to meaningfully incorporate environmental messaging into contemporary religious discourses.

CHAPTER 7: ISLAMIC ENVIRONMENTAL PRACTICE IN QATAR

Examining environmental advocacy within Qatar reveals many state and non-state actors including government agencies, private companies, academic institutions, grassroots organizations and volunteer-based groups tackling a myriad of social and environmental issues. These issues range from food waste to littering and plastic pollution to climate change, habitat loss and biodiversity conservation. Based on my field research and interviews conducted with leaders and representatives of many prominent environmental groups and institutions in Qatar, a range of views emerged on the causes of local and regional environmental problems and the strategies believed to be the most effective in addressing these challenges. Environmental actors also differed considerably in their perceived (and actual) power to influence environmental realities in Qatar, which depended on numerous factors including their institutional capacities, level of funding received from the state, and their proximity to government agencies or access to policy makers. Prior awareness of environmental issues also appeared to influence many actors' involvement in environmental initiatives in Qatar. Some leaders were already active in their home countries or had witnessed environmental injustices, hardships, or social inequities before they came to Qatar, which provided the impetus to join environmental organizations or initiate their own when they moved to Qatar. Other activists who were Qatari or GCC nationals had studied in Europe and the US, and wished to bring some of their knowledge and awareness of global environmental challenges back to the region.

One of the striking differences observed between environmental advocates in Qatar is the extent to which religious beliefs, values, and ethics influenced their perspectives and involvement in environmental programs. This variation was based partly on the religious identity of environmental leaders, some of whom were devout Muslims while others were Christians, and/or their religious affiliation – or lack thereof – did not appear to play a role in their environmental advocacy. The latter may reflect a form of embedded environmentalism (Baugh, 2019) or demonstrate the influence of Western secular paradigms of environmental thought void of references to theological beliefs or ethical norms drawn from any religious tradition. Environmentalists who exhibited neutral/agnostic views with respect to the influence of religion on environmental advocacy tended to provide more pragmatic explanations – as opposed to religiously or spiritually rooted incentives – for their involvement in environmental initiatives in Qatar.⁶⁹ Based on my interviews, environmentalists engaging in secular environmental discourses also described an intimate relationship with nature in their childhood or current passions connected to the natural world that motivated them to engage in environmental advocacy.⁷⁰ Despite evident differences in personal reasons and

⁶⁹ For example, one sustainability expert and educator stated: “I’m very pragmatic, and I have common sense. Some people call it environmentalism because you do certain things that help in that way; but I mean in the end it’s just really about understanding where we all come from, and where we are all going, right? It’s common sense and it’s practical. And a lot of things are very unnecessary in terms of leaving the water running and lights on.”

⁷⁰ The Doha Environmental Actions Project Director, for example, explained that he came from a farming family. His grandparents grew up and lived in the mountains, so he spent a lot of time as a child “going to the farm, going to the mountains, spending time there...seeing animals in the wild...” He continued: “My grandpa had an apple orchard and plum orchards, so every summer harvest time we’d spend two to three weeks harvesting. We’d be working all day harvesting the apples, climbing on the trees to harvest. As a child, those things have a long-lasting impact I think. It was that and then, to me, it’s so right to do it that it feels so wrong if I don’t do it.” Another Qatari environmental scientist and activist said: “I love being outdoors. I am very connected. That’s it. A lot of my

incentives, many environmentalists' views tended to converge on the urgency of tackling certain social and environmental problems, and adopting more environmentally sustainable development in Qatar.

The remainder of this chapter focuses specifically on the Qur'anic Botanic Garden (QBG) as one of the clearest – albeit imperfect – examples of Islamic environmentalism in Qatar. This institution can be classified under Islamic environmentalism for a number of reasons. The QBG clearly demonstrates its rootedness within the Islamic landscape by including Islam's primary scriptural text in its name. It also makes explicit references to particular verses, prophetic traditions, and Islamic principles within its publications and in articulating its institutional objectives. Moreover, interviews with its Muslim founders and/or leaders reveal clear religious incentives and understandings that appear to have influenced the mission and broader goals of this project. The QBG can, thus, be studied as a distinct example of Islamic environmentalism combining environmental aspirations of many modern botanic gardens with explicitly religious (and cultural) aims.

The first section of this chapter (7.1) introduces this environmental institution with its unique garden vision. The second section (7.2) presents an explanation of the QBG's objectives and strategies. The third section (7.3) examines the personal and religious motives of some of its leaders and explores how Islamic and cultural values

motivations are because I'm very connected to the environment. I'm not disconnected...We would go camping, trekking, swimming in the ocean, fishing. Now I do a bunch of diving. So I'm very - I *visually* can see the damage, and then I don't know what it is. That's something to do with an injustice. I can see an injustice, and I can't seem to let go haha....I'm motivated by my awareness. I am aware that there is damage. I am aware of *who* is damaging. I am aware that I have to do something. I feel responsibility as a citizen, and as a *human* of this planet—that if you are aware, you should try and make a better world, for anyone else haha. It's universal values. It's not something special within me."

influence the institution's environmental programs and advocacy. The last section (7.4) critiques the efficacy of the QBG by examining its achievements and opportunities, and assesses its ability to influence environmental decisions in Qatar while tackling the most pressing environmental needs of the country.

7.1 Introduction to the Qur'anic Botanic Garden (QBG)

The Qur'anic Botanic Garden (QBG) is one of the most established, well-funded, and overtly Islamic environmental institutions in Qatar. Founded in 2008 through a UNESCO project in Doha, the QBG is a member of the non-profit and semi-private organization known as Qatar Foundation for Education, Science and Community Development. The QBG makes it known that the co-founder and chairperson of Qatar Foundation Sheikha Moza bint Nasser⁷¹ marked the Garden's inauguration by planting its first tree, the *sidr*. This tree is commonly known as the jujube tree (*Ziziphus spina-christi*) or Christ's Thorn Jujube (Lange, 2016).⁷² The evergreen *sidr* holds symbolic and cultural significance as the logo of Qatar Foundation while also maintaining religious significance due to its mention in the Qur'an. It also holds ecological value in Qatar, as it has been planted as a windbreaker, to stabilize sand dunes, and to reforest dry lands (*Trees*, 2015).

⁷¹ Sheikha Moza bint Nasser is the wife of the former Emir, Sheikh Hamad bin Khalifa Al Thani, who founded Qatar Foundation and is also the mother of Sheikh Tamim bin Hamad bin Khalifa, the current Emir of Qatar.

⁷² In the Christian tradition, it is believed that this tree (Christ's Thorn Jujube) was used to create the crown of thorns placed on Jesus' head by those plotting to crucify him. This crown of thorns is mentioned in the Gospels of Matthew, Mark, and John. In the Islamic tradition, however, this tree has no connection to this crown of thorns and is mentioned only as *sidr* in the Qur'an (i.e., 56:28, 34:16). As a point of distinction, the Qur'an also mentions the *sidra* (lote tree, *Ziziphus lotus*) in a few *āyāt* (53:14, 53:16) in reference to *Sidratu'l-Muntahā*, which is the lote tree marking the utmost boundary beyond the seventh heaven at which none can pass—even Angel Gabriel. According to the Qur'an, this is the tree where Muhammad spoke to God during the Ascension or *Mi'rāj* (53:13) and it is also believed to be near the garden of Paradise (53:15).

The QBG introduces a hybridized garden vision combining environmental aspirations of many modern botanic gardens⁷³ with explicitly religious and cultural aims. Although the QBG may be viewed as an “Islamic garden”⁷⁴ due to its unmistakable religious naming, the QBG negates its conformity with other “Islamic gardens” by clearly stating that it does not seek to replicate the artistic design of historical or extant gardens throughout the Muslim world—albeit noting that it may

⁷³ The function and purpose of botanic gardens has evolved significantly throughout history. Many scholars consider the physic gardens established in Italy and throughout Europe during the 16th and 17th centuries as the first true botanic gardens. These gardens were often connected to universities as in Zurich, Paris, and Oxford, and were created for teaching botany and researching medicinal plants. As scientific research aligned with imperial ambitions during the 17th, 18th, and 19th centuries, some of these European gardens and many newly established botanic gardens in colonized areas (e.g., India, Australia, and Jamaica) became central to the transfer and reproduction of plants for commercial development and to increasing the wealth of colonial powers. With the rise of scientific and technological advancements in the 20th and 21st centuries, many botanic gardens have expanded their capabilities or emerged as new centers for applied research in a variety of fields including plant taxonomy, phenology, physiology, systematics, seed science, propagation, conservation, restoration, and biotechnology. Global challenges such as climate change and biodiversity loss have also led many botanic gardens to direct their research toward protecting endangered species and studying plants’ responses to climate change. Public engagement has also gained importance for botanic gardens aiming to increase environmental education on the ecological role of plants and the value of biodiversity for people and natural ecosystems. For a more detailed review of the historical evolution and functions of physic and botanic gardens, see Hill 1915; Jackson & Sutherland 2013; Neves 2019; Baber 2016; Taylor 2017; Sanders et al. 2018; Włodarczyk & Kapczyńska 2019; Cannon & Kua 2017; Donaldson 2009; Chen & Sun 2018; and Dodd & Jones 2010.

⁷⁴ Although gardens established under Muslim rule were influenced in part (and in certain times and regions) by Islamic beliefs and scripture, the simplistic approach to gardens in the Muslim world focusing on metaphorical depictions of the celestial paradise or religious interpretations of design elements without considering historical contexts or cultural and environmental influences has led some scholars to drop the “Islamic” qualifier used to describe gardens in the Muslim world and to redefine these gardens in terms of the empires, time periods, or geographic regions in which they were designed. This academic shift away from labeling gardens in the Muslim world as “Islamic” appears to be a reaction of some scholars within the last several decades to the lack of sufficient historical and archeological evidence linking garden forms to particular spiritual and metaphysical meanings that have not been proven to manifest consistently across the centuries, geographic regions, dynasties or empires under which these gardens flourished. While some scholars critique the overemphasis on religious connotations of gardens in the Muslim world, others note the dearth of scholarship on the relationship between aesthetics and theology, and argue that the metaphysical dimensions and spiritual influences on Islamic gardens have actually been sidelined and underestimated. For more details on the history of gardens in the Muslim world and discussions on “Islamic gardens”, see: Petruccioli, 1997; Petruccioli, 2003; Westcoat, 2003; Nanji, 2005; Jani, 2015; Lehrman, 1980; Hamed, 2009; Blair & Bloom, 2003; Conan, 2007; Parodi, 2010; Westcoat, 2003; Haider, 1984; Campbell & Boyington, 2018; and Ruggles, 2008.

end up sharing some of these gardens' elements (i.e., water, shade, and walkways). Rather, the QBG identifies its distinguishing features as the botanical *content* it seeks to house and the religious environmental principles and values it wishes to promote. While historical gardens in the Muslim world feature some recurrent stylistic designs that garden historians have studied for their real or imagined religious symbolism and metaphorical meanings (Ruggles, 2008), the QBG demonstrates its rootedness in the Islamic tradition by stating that the plants (i.e., flowers, trees, shrubs, etc.) it aims to identify, collect, and research for their religious, cultural, and/or medicinal value are those mentioned in the Qur'an and/or Hadith literature.

Although the QBG appears to be planned strategically and progressing steadily toward its numerous scientific, cultural, and religious objectives (see section 7.2), this research elucidates some critical gaps between its lofty aspirations and its practical achievements on the ground (see section 7.4). While interviews with QBG's leaders and representatives reveal the institution's heavy reliance on religious and cultural values (see section 7.3), as well as its pedagogical importance and contribution to environmental education (particularly for children and future generations), interviews with environmental advocates outside of Qatar Foundation also reveal some disparities between the QBG's work and the top environmental challenges of the country (e.g., water scarcity, rising temperatures, and air and water pollution.). Moreover, some interviewees who do not represent the QBG perceive this project – along with other government-sponsored projects – as an instrument to promote Qatar's green image throughout the world without truly

advancing the country's environmental sustainability. These perspectives cast some doubt on the promising discourse and aims of the QBG and present opportunities for further research into the challenges this institution faces in aligning its practices with its stated values and mission on one hand, and its scientific and educational initiatives with the most pressing environmental needs of the country on the other.

While the QBG can further align its mission with Qatar's environmental priorities, this research demonstrates how such state-sponsored institutions – despite their promotion of noble religious and ecological virtues – are not strategically positioned to challenge dominant economic models of development or remedy social or environmental inequities maintained by the status quo. These institutions may, indeed, succeed in making intellectual, cultural, and scientific contributions. Yet, their inability to politicize environmental issues reveals the difficulty of critiquing and reforming development models and environmental policies to achieve more socially just and sustainable ends. Furthermore, such political restrictions demonstrate the limited potential of Islamic environmental activism, more broadly, since non-state actors – who are prohibited by law from engaging in politics in Qatar – can promote religious and ecological values without criticizing the political economy of the state and root causes of environmental degradation and social injustice.

7.2 Objectives & Strategies of the QBG

The Qur'anic Botanic Garden (QBG) in Doha, Qatar is considered a unique modern botanic garden with many cultural, religious, educational, environmental, scientific, and recreational objectives. It reveals its regional and global ambitions

through the aim of establishing itself as an internationally recognized center of knowledge, research and education that maintains and preserves the “natural, cultural, and spiritual heritage” of Arab and Muslim countries while employing Islamic and modern scientific approaches to biological conservation (QBG, 2015, p. 3). The QBG draws on Islamic beliefs and teachings, describing itself as a “hub for intellection, meditation, and forethought in Allah’s creations” (QBG, 2015, p. 3) that wishes to benefit diverse peoples including Arabs and non-Arabs as well as Muslims and non-Muslims (QBG, 2015). It also demonstrates an interest in ecological stewardship through its goal of fostering cultural exchange and connections between people to inspire appreciation for nature, advance environmental education, and nurture a sense of responsibility toward the environment (QBG, 2016).

The QBG’s overarching mission is to promote “a complete understanding of the plants, botanic terms and conservation principles” found in the Qur’an and Sunnah by “applying scientific innovations, building appreciation of cultural traditions and by creating a garden that will provide unique opportunities for learning” (QBG, 2016). Although its full garden landscape has not been designed yet, the QBG envisions the garden incorporating Islamic architecture, water, and harmoniously placed plants that give it the “fragrance of the ancient Islamic civilization” (QBG, 2015, p. 9). The QBG also seeks to meet the need for additional green spaces in the region by providing a beautiful landscape that becomes a prime destination for families – particularly children – where everyone can learn in a joyful and relaxing environment (QBG, 2015).

The primary goal of the QBG is to build an educational program capable of producing and transferring knowledge in the fields of botany, conservation, horticulture, and natural heritage to all schools and the general public in Qatar, as well as to the global community (QBG, 2015, 2016). In its efforts to fulfill its educational role, the QBG holds numerous community engagement programs and also produces educational literature for adults and small workbooks in Arabic for children, including colorful plant anatomy diagrams, mazes, coloring activities, matching exercises, and crossword puzzles intended to teach children about biodiversity, plant life cycles, and the cultural and religious value of plants through engaging activities. Also, in order to document and disseminate basic information about plants, the QBG published the *Illustrated Book of the Plants of the Qur'anic Botanic Garden* (2015) with Arabic text and side-by-side English translation that makes it accessible for Arabic and non-Arabic speakers. These educational initiatives clearly represent a pedagogical form of Islamic environmentalism (explained and exemplified in section 3.4.1).

The preface of the *Illustrated Book* mentioned above is written by Zaghoul Al-Najjar, a prominent scholar of geology and Islam who traveled to Qatar as a visiting professor from The World Islamic Sciences and Education University in Amman, Jordan. He explains in his preface that the Qur'an and Sunnah are considered God's divine revelation, with the Qur'an containing well over 1,000 verses on the natural world and its phenomena. He notes, however, that these verses are not considered "direct scientific revelations" because the human mind requires undergoing a process that consists of observation, experience, and

deduction (p. 7). Al-Najjar views verifying the accuracy of these revelations in both the Qur'an and Sunnah as a necessity while "adhering to the principles of empirical evidence and [Islamic] jurisprudence" (p. 8). Nevertheless, he emphasizes the potential uniqueness and significance of the plants in the Qur'an and Sunnah due to them being highlighted specifically out of hundreds of thousands of plants botanists have identified thus far. This preface, which captures the QBG's underlying philosophy, demonstrates a respect for the Islamic tradition and its disciplines while affirming the value of scientific exploration and discovery for producing a deeper understanding of living/natural systems and phenomena featured within Islamic scripture based on divine wisdom and knowledge.

The remainder of this book includes taxonomic information on close to sixty plants mentioned in the Qur'an and/or authentic Hadith, along with photos taken of plants in their natural habitats in or outside of Qatar, or in the QBG's nursery. Some of the QBG trees, plants, herbs, seeds, and even fungi described in this book include the acacia (*'urfuṭ*), date palm trees (*nakhīl*), olive (*zaytūn*), fig (*tīn*), grape (*'inab*), lentil (*'adas*), garlic (*fūm/thawm*), onion (*baṣal*), ginger (*zanjabīl*), saffron (*za'farān*), sweet basil (*raiḥān*), pumpkin (*dubbā'/qar' 'asalī*), black seed (*ḥabbah sawdā'*), mustard (*khardal*), and truffle (*kam'ah*). Each description includes the Arabic and common English name of the plant, along with its scientific name (order, family, genus, and species) as well as its growth form, habitat and distribution, and one plant reference in the Qur'an and/or Hadith. In describing the olive (*zaytūn*), for example, the growth form section states that it is an evergreen tree while the habitat and distribution section states that olive trees are "widely cultivated in the countries

of the Mediterranean basin” and their “original habitat was probably in the East Mediterranean region” (p. 72). The section on the plant reference in the Qur’an mentions that the olive appears in six verses, with God describing the olive tree as blessed. It quotes a verse depicting a parable of God’s light in the Qur’anic chapter entitled “The Light”:

Allah is the Light of the heavens and the earth. The parable of His light is as (if there were) a Niche and within it a Lamp: the Lamp enclosed in Glass: the glass as it were a brilliant star, Lit from a blessed Tree, an Olive, neither of the east nor of the west, whose oil is well-nigh luminous, though fire scarce touched it: Light upon Light! Allah doth guide whom He will to His Light: Allah doth set forth Parables for men: and Allah is the All-Knower of everything. (Qur’an, 24:35)

Following the Qur’anic reference, the section on the Hadith reference includes Abu Huraira’s narration found in *Sunan Al-Tirmidhi* which states that the messenger of God said: “Eat the *zait* (olive oil) and use it as an ointment, because it is produced by a blessed tree (olive tree).” Although this illustrated book does not include complete citations and plant references from source texts, uses some archaic translations and excessive capitalization, and does not adopt a discursive approach to the source texts elaborating the religious, scientific or medicinal value of the plants it mentions, it serves as a brief and visually appealing textual reference on the plants the QBG seeks to study and conserve, and for which it aims to promote environmental awareness and education.

One of the QBG’s other educational booklets is called *Trees* (2015), and it is printed as separate English and Arabic publications. It focuses mainly on trees as a fundamental component of the QBG and highlights their importance and care from both environmental and ethical perspectives (2015). Its introductory quotation

(Qur'an, 3:190-191) describes the people who reflect on the signs of God in His creation and remember God often, and who reach the conclusion that God's creation is not in vain and thereby seek protection from the punishment of the fire in the hereafter. The foreword of the book, which is written by the QBG's Project Manager Fatima Al-Khulaifi,⁷⁵ begins "In the name of Allah, the Most Gracious, the Most Merciful" and also praises Allah, and sends peace and grace upon "Prophet Mohammed, his family, and all his companions" (p. 7). The foreword ends with a prayer saying: "May Allah accept this publication as an effort aimed to help people think about His creation through brief scientific presentations" (p. 8).

The opening chapter of the book presents Arabic and scientific definitions of trees and explains how Arabs traditionally distinguished between different categories of trees. It also discusses numerous references to trees in the Qur'an and prophetic tradition describing their lifecycle, the spiritual rewards for planting trees, people whose gardens and trees were destroyed due to their disbelief and ingratitude, and comparisons between certain trees and plants to different types of people (i.e., believers, reciters of the Qur'an, and hypocrites). This booklet also presents the morphological structure of trees; their biological growth and development; environmental, aesthetic, and economic value; 'fun facts' about trees; as well as tips on planting trees and ways to protect and care for trees through recycling and reducing consumption of paper for example.

This booklet adopts a more discursive approach to its discussion of Islamic texts than the aforementioned book, while highlighting the cultural, religious, and

⁷⁵ Fatima Al-Khulaifi is a Qatari national who worked in marketing and public relations for Qatar Foundation before she joined the QBG as its Project Manager.

spiritual significance of trees along with their ecological and environmental value as informed by modern science. With an Islamic opening and prayer for acceptance from God, it also demonstrates that its motivation for producing this kind of educational publication is not secular but, rather, primarily religious and aimed at pleasing God first and foremost while seeking to draw people to God through reflection and contemplation about the significance and wonders in His creation. As a final note, although the booklet is not an academic publication that targets specialist audiences and, thus, does not include highly complex information or complete citations throughout the body of the text, it does end with a list of Arabic and English references and links for people who wish to fact-check the information it contains.

In addition to its educational objectives, the QBG seeks to advance a scientific program in which research is conducted in multiple fields including horticulture, agriculture, biotechnology, conservation, medicine, and in which the socio-economic value of plants in the QBG is also studied (QBG, 2015, 2016). The QBG adopts a two-pronged approach to conservation with *ex situ* and *in situ* programs. As part of its *ex situ* conservation strategy, the QBG includes a nursery where Mediterranean, tropical, and desert plants and saplings from within Qatar and different regions of the world are collected, grown, preserved, and studied. The QBG also contains an herbarium and seed unit, which seeks to collect seeds and herbs mentioned in the Qur'an and Sunnah as well as other endangered species in Qatar that have medicinal value (ElGharib and Al-Khulaifi, 2020). The QBG aims not only to collect plants, herbs, and seeds for scientific study and conservation purposes, but also to display

them in the QBG museum (along with some of their traditional roles and uses) as a way of showcasing its Arab and Islamic heritage (QBG, 2016).

The QBG's *in situ* conservation program focuses on ecological studies to conserve plants in their natural habitats in Qatar (QBG, 2016). The QBG team includes scientists specialized in botany and horticulture who conduct field surveys and use various techniques such as GIS mapping to collect and analyze data on endogenous plants in Qatar, including plant stages (i.e., dead/dormant, vegetative, flowering, fruiting); plant measurements (height and width); habitats (i.e. plateau, elevated land, depression, irrigated lands, coastal regions, coastal dunes, sand dunes, etc.); soil texture (i.e., deposits, surface sand, stones and gravel surface, rocky, etc.); threats (i.e., grazing, collection, camping, fuel, urbanization, car tracks, hunting); and animals or animal dung observed in plant habitats.⁷⁶ This field research enables the QBG to study the conditions of Qatar's flora in order to help fulfill its environmental goal of preserving Qatar's biodiversity and protecting its native plants and habitats from threats brought about by human activities (QBG, 2015).

In fulfilling both its educational and scientific objectives, the QBG also organizes international forums and conferences focusing on different botanical and environmental themes, then compiles and publishes abstracts, academic papers, and recommendations based on the conference sessions and roundtable discussions. Its first international forum was held in Doha in 2009, and it convened Muslim and

⁷⁶ This data is based on a survey intake sheet given to me by Ahmed ElGharib, a botanist and research assistant who conducts field research in Qatar for the QBG, and who was also a graduate student at the time of my field research.

non-Muslim professors, scholars, scientists, and environmentalists from numerous countries including Egypt, Jordan, Lebanon, Morocco, Palestine, Qatar, Saudi Arabia, Malaysia, Indonesia, Spain, Turkey, USA, and UK (QBG, 2013). The presentations, which were delivered mostly in English (and some in Arabic), covered topics ranging from conservation values and environmental impact assessments to Islamic art, design and architecture to plants in the Bible, Qur'an, Hadith and Sunnah. The conference also covered the role of the QBG as well as its coordination with various international organizations (QBG, 2013).

In collaboration with the International Union for the Conservation of Nature (IUCN)'s Commission on Ecosystem Management (CEM), the QBG organized its second international forum in 2014 around the theme of Islamic perspectives on ecosystem management (QBG, 2015). Lectures covered a range of topics including conservation and sustainable development in Islam, ecological ethics in the Bible, historic Islamic gardens with *ex situ* conservation, mangrove ecosystems and distribution in the Arab region, ecosystem restoration, and the role of botanic gardens in education, environmental awareness, and action on plant conservation. After this forum, the QBG also published the proceedings in the form of Arabic and English abstracts, papers, conclusions and recommendations for future research and collaborations.

In 2018, the QBG collaborated with several universities in Oman as well as the Oman Animal and Plant Genetic Resources Center (OAPGRC) to organize and sponsor another scientific conference in Muscat, Oman entitled "International Conference on Frankincense and Medicinal Plants: Recent Developments in

Scientific Research and Industry” (QBG, 2023). The QBG sent representatives to present at this conference, which aimed at providing a platform for exchanging scientific knowledge as well as an opportunity for networking and strengthening relations between Qatar and Oman (QBG, 2023). The QBG’s Project Manager Fatima Al-Khulaifi noted that their participation in this conference helps strengthen Qatar’s position within the region and internationally, which is one of the goals described in Qatar’s National Development Strategy 2018-2022 (QBG, 2023).

In partnership with the Islamic Culture Foundation (FUNCI) in Madrid, the QBG also hosted a “Gardens of Al-Andalus” exhibition in 2018 at Hamad Bin Khalifa University’s College of Islamic Studies (ElGharib and Al-Khulaifi 2020). Highlighting the importance of gardens in Islam, this exhibition featured Andalusian garden models, explanatory panels, and ethnographic elements and tools to educate audiences about the history of agriculture and garden designs during the Andalusian period (QBG 2023). These local and regional initiatives reveal the QBG’s multifaceted approach to fulfilling its educational, scientific and religious objectives in various academic, professional and collaborative capacities.

7.3 Religious & Cultural Values of the QBG

During my field research in Qatar (2019), I conducted interviews with several scientists, environmental activists, and representatives of the QBG who helped initiate the garden project and/or who lead its educational, outreach, and scientific initiatives. Interviews covered numerous topics including the founding history of the QBG; its aims and objectives; scientific research and educational programs; and the role of religious and cultural values in motivating its leaders and

shaping the ethos and vision of the institution.⁷⁷ One of the individuals I interviewed at the QBG Management Office in Doha is Saif Al-Hajari. A Muslim, Qatari scientist, Al-Hajari studied geology and marine science at Qatar University and completed his graduate studies in hydrogeology in the United States with a focus on Qatari and eastern Arabian aquifers. He is the former Vice Chairman of Qatar Foundation – having served for twenty-two years – and also the former general manager of Qatar Foundation. Al-Hajari helped establish the Qur’anic Botanic Garden and was heavily involved with many of its earliest initiatives since 2008. He is also the founder of Friends of the Environment Center (FEC),⁷⁸ current chairman of Friends of Nature, and has led (and continues to spearhead) numerous environmental programs and initiatives over the last several decades. Al-Hajari is considered one of the most prominent and highly respected environmental scientists and advocates in Qatar who makes frequent media and conference appearances, and is known for his ability to engage effectively with all kinds of people, from young school children to government officials.

In describing his partnership with Saif Al-Hajari, director of the Doha Environmental Actions Project Jose Saucedo referred to him as “the godfather of the green movement in Qatar”. Saucedo described Al-Hajari’s visionary thinking while

⁷⁷ Some responses to these questions were given partially or entirely in Arabic, particularly when addressing Islamic and cultural values. Any quotations or content from these interviews included in this section have been translated into English.

⁷⁸ According to Al-Hajari, he founded FEC initially as a non-governmental organization in 1992, but after two years the Ministry of Culture and Sports (formerly Youth and Sports) asked FEC to work under the umbrella of this ministry. Al-Hajari worked with FEC as part of this ministry for twenty-two years, but was dissatisfied with the ministry’s bureaucracy and FEC’s inability to operate freely as an organization. As such, he decided to part ways with FEC and started another independent group called Friends of Nature.

facing resistance in forging more collaborative partnerships at Qatar Foundation. He stated:

The other day, I was in Qatar Foundation knocking on some doors...that haven't opened yet. Knocking on doors for the *nth time*. But one guy who was with me was like: no Jose! You're two years – no, you're ten years too early! You're crazy. You're ten years too early. I'm like *no*. You're ten years too late! That's what I'm trying to get people to understand. No, no, we are ten years too late; and I'm being *generous*; and then I tell him: by the way, you know who was not ten, but probably thirty years too early: Dr. Saif! He was thirty years early—way ahead of his time in this particular subject.

In my interview with Al-Hajari, he described the disparity he observed upon his return from the United States in the 1990s between the older and younger generations in Qatar. He said:

If I look to my parents, my father and grandfather in the past, they did not go to school. They didn't do any training in environment. They were just people living naturally. They were living close to nature. They had more skills to deal with nature. They were more positive to the environment than our children. Our children have more science, more technology, more ideas, but they don't care about anything. They don't care about flora. They don't care about wildlife. They don't care about water. They are throwing garbage everywhere.

What Al-Hajari found to be missing was good behavior and values, and this observation motivated him to start an institute (FEC) focusing on values. He then reflected on past civilizations and the reasons for their demise. He said their problem was not a lack of knowledge or information. Rather, these civilizations collapsed because they started losing their values. He emphasized that knowledge is insufficient without values, and having both knowledge and values is what allows a society and civilization to flourish.

After some discussion about Al-Hajari's various environmental initiatives, he said he was very pleased to know that my research project focused on the role of Islamic ethics in environmental advocacy. He noted:

If you look to Islam (as well as other religions), you will find that it is very rich in the relation between people and living things; between people and people; and between people and non-living things (*jamād*) like water and rocks. People have a responsibility toward everything that comes from Allah *subḥānahu wa ta'ālā* [Glorified and Exalted], and people's relationships with His creation must be in a state of balance. This is the divine way or universal order (*sunnatu'l-ḥayāh/sunnatu'l-kawn*). When environmental problems arise, you are outside this balance.

Al-Hajari stated that in Islam, environmental protection or preserving God's blessing is not considered legally recommended (*mustaḥab*) or a matter of personal preference, but rather an obligation (*wājib*). He explained that the *āyāt* in the Qur'an and the prophetic teachings are very clear regarding how to conserve water and how to interact with other creatures. He quoted an oft-cited *ḥadīth* conveying the prohibition of wasting water, even if you are on the bank of a flowing river.⁷⁹ Then he quoted another *ḥadīth* saying that even when Judgment Day comes and you are holding a seedling, you should still plant it if you can. This concept of valuing nature, he said, has existed for over 1,400 years. He also noted that Islam prohibits killing living creatures unjustly (i.e., for sport) because God did not create them in vain (Qur'an, 3:191). Even if a person does not know or has not discovered these creatures' ecological value or importance, he said it is considered sinful to take their life unjustly. He noted that these conservational values and rulings show how the

⁷⁹ This *ḥadīth* is found in several Hadith compilations including *Sunan Ibn Mājah* (#425), but it is classified as a weak *ḥadīth* due to a weak chain of transmission. The meaning of its text, however, is corroborated by other *aḥādīth* and Qur'anic verses.

Messenger trained his companions to follow Islamic ethics in their relationship with the environment.

When I asked about cultural values that may play a role in environmental advocacy, Al-Hajari stressed the importance of promoting national pride (*waṭaniyyah*). He said people need to feel proud of their country and their cultural background, and to care about the cleanliness of their country's environment and its beaches—especially in this part of the world because “we are tribes.” He recalled that when he was a child, there was a smaller gap between the younger and older generations so he benefited more from his father in terms of the values he taught him. He argued that the gap was also smaller between neighbors, and children received a consistent message from both neighbors and the elders in their family. He contrasted this state with today's society in which families differ in their values and their approach to raising children. He observed:

Children these days receive different messages inside and outside of the home. Technology is there now trying to get too close to the children's behavior. This is very tough for children; even the varieties of things surrounding them. We used to build our toys ourselves. Maybe when I go to the supermarket, I find one type of candy, not hundreds. Today, kids are coming across a lot of things.

This kind of endless exposure, according to Al-Hajari, makes it more difficult for parents to instill values related to simplicity, moderation, and conservation in their children. He noted, again, that good technology and very good education are important, but they will be misused in the absence of positive values. Al-Hajari emphasized the importance of educating the public, especially children, about Arab and Islamic environmental values, especially when the cultural and religious heritage is very rich in its ecological principles and teachings. Al-Hajari's views

reflect a holistic understanding of Islamic concepts and values and elucidate the ways in which these values and teachings ought to influence environmental thought and behavior in an Arab and Muslim country such as Qatar. His observations and experiences also demonstrate the social and cultural changes complicating the reform of people's attitudes and behaviors toward the natural environment along with the increased need for environmental initiatives seeking to address these challenges.

Another environmental leader I interviewed was Fatima Al-Khulaifi, a Muslim Qatari who served as the Project Manager of the QBG since 2013. Al-Khulaifi received her undergraduate degree in education from Qatar University, and formerly worked in marketing and public relations for Qatar Foundation. She has a personal interest in studying Islamic history and literature, as well as *sharī'a*. When I asked about Islamic values, Al-Khulaifi said that the QBG is concerned with the ethical principles mentioned in the Qur'an. She stated that food security and moderation are important Qur'anic principles and noted how Prophet Joseph (Yusuf)'s interpretation of the King's dream⁸⁰ constituted a strategy that would guarantee food security for the people of Egypt. She explained that Yusuf's advice to store what they reap from the first seven years of what they sowed—in preparation for the following seven-year famine—represents a conservational value embodied in the idea of creating a seed bank, which is part of the QBG's conservation program.

⁸⁰ According to this Qur'anic narrative (12:43-55), the king of Egypt during the time of Joseph had a dream of seven fat cows being eaten by seven lean cows as well as seven green ears of corn and seven withered ones. When Joseph was in prison, he was consulted about the King's dream and upon hearing his interpretation, the King summoned him and eventually entrusted Joseph (upon his request) with managing the nation's storehouses.

She also noted that Yusuf stating that they should store all that they reap “except the little that you eat” (12:47) reflects the value of moderation (*iqtisād*) and not wasting. Later, she quoted a Qur’anic verse (6:141) recounting some of God’s favors (i.e., trellised and untrellised gardens, date palms, crops of diverse flavors, olives, and the pomegranates) and emphasized the directive to avoid wastefulness mentioned in this verse. She also stressed the part of this verse commanding people to give the right of these crops (“*ḥaqqahu*”) in the form of alms (*zakā*) and stressed the importance of educating farmers about the need to give a portion of their crops as *zakā*.

Al-Khulaifi said when the QBG designs educational programs, especially for children, they focus on concepts such as food security and teaching children how to plant seeds and grow food, how to irrigate, how to harvest fruits and vegetables, and how to identify the most suitable environmental conditions for plants and food to flourish depending on the soil in which they are grown. She remarked that after the recent blockade against Qatar,⁸¹ many schools and institutions are becoming more environmentally aware and open to learning how to become more self-sufficient with regard to growing their own food. Al-Khulaifi also mentioned that in all of the QBG activities, including its annual Ghars (planting) community engagement

⁸¹ Al-Khulaifi was referring to the blockade imposed on Qatar starting May 2017 by Saudi Arabia, the UAE, Bahrain and Egypt. Led by Saudi Arabia, the quartet severed diplomatic and trade relations with Qatar, claiming Qatar was sponsoring terrorists and forging close relations with Iran. (Qatar rejected these claims and accused these countries of violating its sovereignty.) The blockading countries imposed a land, sea, and air embargo on Qatar, suspending flights to/from Qatar and preventing Qatari ships from using their ports. Saudi Arabia also closed its land border to Qatar, which blocked any cargo from entering Qatar by land. (The blockade was lifted in January 2021 and diplomatic relations restored following an agreement signed at the GCC countries’ annual summit.)

program, it is important to plant with good intentions; to protect oneself and one's dignity, and to provide food for birds, for example, and shade for people. She said:

These beneficial acts are considered charity according to prophetic teachings. Mindful planting with the intent of implementing one's faith and reaping spiritual rewards is very different from someone who plants while being mindless or heedless (*ghāfil*). The spiritual status and reward for these acts also differs in the hereafter.

In discussing the ethical dimensions of behavior, Al-Khulaifi mentioned the Qur'anic parable comparing the "good word" to the "good tree" (14:24) with firm roots and branches reaching high in the sky, and which constantly yield fruit by God's permission. She said some exegetes say this "word" is the testimony of faith (*shahāda*) while others say it is literally a good word from a believer that makes people feel happy. Unlike the "bad word" that can hurt or make people upset, and which God likens to a "bad tree" uprooted from the surface of the earth and having no stability, she said good words have the power to uplift people so they can bear more fruit. She believes this Islamic understanding motivates positivity and that encouraging words should be shared with workers or employees, for example, so they can be more productive.

Al-Khulaifi argued that in a modern nation such as Qatar, the QBG strives to harmonize between Islamic principles mentioned in the Qur'an and Hadith, and universal values as embodied in the UN's Sustainable Development Goals (SDGs). She stated:

The QBG aims to tie together worldly meanings with religious and spiritual values. We invite scholars with expertise in religion and

Islamic studies, like Ali Al-Qaradaghi,⁸² to present the Islamic perspective on many topics including plants, trees, gardens, and conservation. It is very important to investigate, from a scientific perspective, references in sacred texts to certain trees and foods.

She gave the example of God mentioning the olive and fig together in the same verse in the Qur'an (95:1), and affirmed the value of researching and contrasting these fruits and trees in terms of, for example, seed size, leaf size, and environmental value. Al-Khulaifi also explained how the QBG's educational programs and scientific research aim to convert theoretical Islamic principles and spiritual concepts to practical and tangible outcomes through community engagement, global collaborations, and scientific exchange with other botanic gardens.

Al-Khulaifi's insights on various Qur'anic principles and narratives elucidate apparent linkages between Islamic theoretical ideals and environmental practices adopted by the QBG. Her reflections on some of the QBG's broader objectives also demonstrate how this institution seeks to bridge its scientific research with Islamic ecological concepts and principles as well as universal values. By adopting this multifaceted approach, the QBG affirms its religious character within a Muslim country and region while also maintaining global relevance by contributing to modern scientific research and pursuing universal goals and objectives. The QBG's attempt to find compatibility between verses from the Qur'an and the UN's Sustainable Development Goals also demonstrates a concerted effort to show compliance of religious values with universal values as well as how the state's

⁸² Ali Al-Qaradaghi is a scholar of *shari'a* and law with expertise in field contracts and financial transactions. He is a professor at Qatar University and served as the Secretary General of the International Union of Muslim Scholars (IUMS) at the time of this writing.

official religion can play a relevant role in achieving global ambitions. While some may problematize this harmonizing approach for embracing secular ideas and paradigms at the expense of Islam's rich moral tradition, Al-Khulaifi's interview reveals how the QBG maintains rootedness within an Islamic paradigm by continuously relying on religious scholarship and scriptural understandings to advance its contribution to Islamic knowledge and to achieve its broader educational objectives. In addition to offering a critique of the QBG, the next section will further explore how the pursuit of QBG's institutional goals contributes to fulfilling Qatar's broader regional and global objectives.

7.4 Critique of the Qur'anic Botanic Garden

Based on field research and interviews conducted with environmental leaders and representatives in Qatar, the QBG appears to be one of the most established Islamic institutions with environmental objectives in Qatar. The QBG demonstrates a clear – albeit imperfect – example of Islamic environmentalism mainly due to its use of religious language and concepts to articulate its conceptual design and overarching objectives. While the QBG's usage of Islamic terminology and referencing of Islamic scriptural texts may be perceived as superficial attempts to legitimate itself within a Muslim country and region, my research reveals, at the minimum, the QBG's genuine interest in making a novel contribution to the concept of gardens influenced by Islamic teachings that distinguishes it from historic gardens in the Muslim world. Moreover, interviews with QBG's founders and leaders demonstrate a shared commitment within the institution to promoting religious and cultural values, including goodness in word and action, environmental

responsibility, moderation, conservation, charitable giving, as well as national pride and preservation of the country's Arab and natural heritage. The QBG also reveals multifaceted aims to create an intellectual and scientific space to apply Islamic concepts and values on the ground through practical, field-based research and through its numerous educational and community engagement programs. It has succeeded in assembling a strong team of administrators, educators and scientific experts to conduct scientific research and lead community outreach projects and activities. This core team is small and composed of only adult Muslim Arabs (at the time of this writing), but its leaders and members appear to work efficiently and harmoniously to produce quality informational and educational publications and achieve the overarching goals of the QBG.

Although the QBG executes many of its goals domestically, it also aims to become a global center of knowledge that allows people throughout the world to experience the richness of the Arab and Islamic civilization while also establishing itself as a reputable modern botanic garden equipped to conduct advanced scientific research through *ex situ* and *in situ* conservation programs. The QBG has sought to establish its name and status globally as a novel botanic garden partly by conducting international scientific conferences and forging collaborations with other scientific research centers, botanic gardens, and universities supporting the work of botanic gardens. The QBG has also established itself as a modern botanic garden by managing to receive accreditation from the Botanic Garden Conservation

International (BGCI), despite the BGCI's numerous and stringent criteria for gardens to qualify as botanic gardens.⁸³

The goals of the QBG to gain global prominence align not only with some of Qatar Foundation's broader goals, but also with the country's aim of establishing itself as a global actor through investments in education (among other areas) and through building or strengthening relationships with other countries, research institutions, and international organizations so as to affirm its credibility and establish its power on the global stage—despite its relatively small population and geographic size (Al-Horr et al., 2016). These global ambitions are reflected in part through the QBG's invitation to numerous embassies and ambassadors to participate in its Ghars program of planting trees in Education City. They can also be gleaned from the QBG's Project Manager Fatima Al-Khulaifi's words in the lead-up to the "International Conference on Frankincense and Medicinal Plants" held in Oman. She explained that the QBG's participation in this conference helps fulfill the aims of Qatar's National Development Strategy 2018-2022, which promotes global partnerships and international cooperation "to strengthen Qatar's position regionally and internationally" (QBG, 2023)⁸⁴. The QBG and other QF institutions' attempt to find compatibility between verses from the Qur'an and the UN's

⁸³ Although there is no scholarly consensus on the criteria for qualifying as botanic gardens, the Botanic Garden Conservation International (BGCI) defines them as "institutions holding documented collections of living plants for the purposes of scientific research, conservation, display and education". In 2018, BGCI updated their criteria for defining a botanic garden so as to further emphasize the following criteria: "conserving rare and threatened plants, compliance with international policies and sustainability and ethical initiatives". For more details on BGCI's definition of botanic gardens and its criteria for qualifying as a botanic garden, see Wyse-Jackson (1999) as cited in Smith & Harvey-Brown (2017, p. 4) and BGCI (2019).

⁸⁴ This quotation is included on the press and news page of the QBG website, although the copyright date for the website is 2016.

Sustainable Development Goals also demonstrates a concerted effort to show compliance of religious values with universal values as well as how the nation's religion can play a relevant role in achieving global ambitions.

Beyond the QBG's purported scientific, religious, and cultural aims, my research revealed some critical gaps between its lofty ambitions and its practical achievements. One of these gaps relates to the fact that QBG's theoretical aspirations for a physical garden have not been actualized for more than ten years after its inception. Since its founding in 2008, the QBG maintained an administrative office, nursery, herbarium, and seed bank, and has also managed to plant numerous trees over the years. Yet, its pilot garden was not opened to the public until 2020 and its permanent garden is still under preparation for construction.⁸⁵

The delayed completion of its physical garden has deferred many of the QBG's social aims of attracting families and children to a beautiful landscape incorporating Islamic architecture and giving people a flavor of the ancient Islamic civilization remain deferred and not fully realized. The timely completion of the pilot garden before the FIFA World Cup 2022 also reinforces the perception of the Qur'anic Botanic Garden as a tool to advance Qatar's green image to the world while not making a meaningful contribution to the broader critique or reform of development models and policies exacerbating regional environmental vulnerabilities and social inequities.

⁸⁵ Information based on email correspondence with QBG staff at the time of this writing. The pilot garden is currently located between Hamad Bin Khalifa University's College of Islamic Studies and Education City's Oxygen Park. During my field research in 2019, I spoke with Ruba Hinnawi, an administrator and educator for the Foundation for Environmental Education (FEE)'s Eco-schools program. She informed me that the search for a suitable piece of land for the QBG is still in progress and that the model for the structure of the garden has yet to be finalized.

When the main garden is designed, one also wonders whether it will be open to all segments of society. The QBG's publication *Trees* (2015) mentions that children should have equal access to green areas irrespective of socio-economic status, but there is no indication of the QBG being accessible to the large population of low-income migrant workers in Qatar, such as those from the Philippines, Bangladesh, Nepal, etc. This point is especially pertinent in a context where, like in other Gulf countries, wealthy nationals and high-skilled workers enjoy high standards of living, relatively higher incomes, ease of mobility and access to public places while many low-income migrant workers are not only marginalized through residential segregation, but also through social segregation. Many of these low-income migrant workers also do not receive sufficient hours for rest, recovery, and leisure while not being granted sufficient or equitable access to public/green spaces for recreational purposes. This kind of inequity further marginalizes laborers, many of whom left their families and homelands for better employment opportunities in the Gulf region (Showkath 2014; MDPS 2015). The inability of state-sponsored institutions like the QBG to remedy such social inequity or contribute to the well-being of the most disadvantaged segments of the population demonstrates the difficulty of dismantling deeply institutionalized and racialized divisions within a country highly dependent on fossil fuels and cheap migrant labor for its continued development.

Although many of the QBG's educational outreach activities target schools and engage young children, the remainder of its scientific programs and international conferences seem to attract or engage elite scientific and religious

academics and specialists, and some select international and global institutions, while for the most part not catering its outreach, recreational opportunities, and environmental awareness programs and campaigns to the general public. Since this study focused on interviewing organizational leaders, scholars, and prominent environmentalists, future research can examine the general public's perceptions of the QBG and the extent to which ordinary citizens, expatriates, and migrant workers find value in the work of the QBG and can easily engage in its campaigns and initiatives.

When I asked some young Qataris involved in environmental advocacy outside of Education City about the QBG, they described it as being irrelevant to addressing key environmental issues in Qatar. These environmental scientists and activists in Qatar expressed heightened concern with the country's overall sustainability as related to environmental challenges such as climate change (i.e., rising temperatures, water scarcity, or vulnerability to sea level rise) and overwhelming reliance on hydrocarbon exports for its development and economic growth. As such, they did not consider it a priority to develop a botanic garden in an arid region focused on planting trees and educating people about the value of trees. Moreover, they perceived this project as representing an apolitical form of environmental advocacy while remaining oblivious to the country's top environmental priorities.

One Qatari interviewee, an environmental scientist who chose to remain anonymous, problematized desertification in the region and lamented the loss of oases in Qatar, which they explained is due to the country's over-exploitation of its

aquifers. They said young people in Qatar do not know that their country had huge oases, but this informant's awareness is due to their father having lived in one as a Bedouin and also because they studied a report from the Ministry of Municipality and the Environment⁸⁶ from 2008 about the loss of Qatar's remaining groundwater. They were upset that these types of reports are not being translated or disseminated to the public so people can know about the country's environmental history. They believe planting trees through a project like the Qur'anic Botanic Garden does not challenge the underlying causes of desertification and the increasing water-scarcity in the region compounded by the effects of climate change, and which they believe is endangering the sustainability of this country and survival of its population. In expressing their discontent with organizations such as the QBG and the QGBC, this informant said, "They are not talking about the *true* and devastating causes of environmental damage; and if you don't raise awareness about the *actual* causes of damage, how do you expect people to come up with solutions?"

In the Qur'anic Botanic Garden's stated goals and objectives, climate change was barely mentioned in informational documents and during interviews I conducted with its leaders and representatives. Whenever it was mentioned, it was never tied to Qatar's vulnerability to the effects of climate change and leaders did not mention how the QBG will contribute to research on its challenges and effects domestically or regionally. As a whole, the Qur'anic Botanic Garden does not appear

⁸⁶ In October of 2021 (about two weeks before the convention of the 26th UN Climate Change Conference of the Parties [COP 26]), Qatar renamed this ministry to the Ministry of Environment and Climate Change.

to adopt a problem-solution approach to its objectives and project design, and as such does not explicitly identify major environmental challenges in Qatar that it aims to contribute to addressing. Although its field research surveys collect information on some environmental threats to plants in Qatar including grazing, camping, and hunting, its educational programs do not appear to educate the public about the harms of these activities for Qatar's flora. Rather, it seems to take a more general approach to the value of conservation and appreciation for trees and plants as part of Qatar's "natural heritage." Even though the harms of anthropogenic activities from individual citizens or expatriates pale in comparison to major environmental challenges caused/exacerbated by petro-state actors' over-exploitation of natural resources (e.g., water and fossil fuels) for large-scale development projects (LeQuesne, 2018), the QBG does not appear to concern itself with any of these challenges.

Despite being a well-established institution receiving government funding (through its membership in Qatar Foundation), and despite a prominent member of the royal family playing a major role in its founding and inauguration, the QBG does not appear to use its power and collaboration with governmental bodies such as the Ministry of Environment and Climate Change to influence environmental decisions related to land use in Qatar and the country's overexploitation of natural resources. Some may argue that influencing environmental decision-making at a national level is not part of a botanic garden's role, but some modern botanic gardens have become increasingly more involved in influencing environmental policy, and many publicly funded gardens have also become more accountable to the public and its

views on the social, educational and political direction that gardens should take (Dodd & Jones, 2010).

This shift toward increased public involvement may prove more difficult for the QBG since the conceptualization of its vision, mission, and programs appear to have already taken place without input from the public. While the QBG projects many noble goals and aspirations, its government funding and patronage from the royal family make it run sufficiently without the need for public support. While this self-sufficiency may secure its permanence as a botanic garden, it may also decrease its broader efficacy and social influence if even (some) Qataris continue to view it as an elite institution that is not inclusive of its diverse population or as not addressing the key social and environmental needs of the country. Based on this perspective, some unfortunately consider the QBG as one of many tools used by the state to help advance Qatar's image of sustainability to the world and its symbolic representation of Islam and Arab culture, while actually being an artificial island or oasis of sustainability within a larger desert of unsustainability.

As a well-funded Islamic environmental institution with far-reaching connections to royal elites, ministries, and policy makers, the QBG has a unique opportunity to play a more instrumental role in influencing environmental decision-making in Qatar. Although the QBG serves an important pedagogic purpose for future generations in Qatar, it has great potential to broaden its scope beyond apolitical scientific research and environmental education toward raising greater awareness about the broader threats that climate change and local environmental degradation pose to Qatar's biodiversity and natural habitats. The QBG could

optimize on its reputability and social leverage to educate people about the anthropogenic causes of environmental pollution and degradation in Qatar, and to hold its government and major corporations accountable for the sake of people's physical and emotional health. It also has a responsibility to demonstrate to the public how people's health and wellbeing are inextricably linked to the integrity of Qatar's flora and fauna, its ecosystems, and the broader region's marine and terrestrial environments.

While Qatar seeks to assert its global power and leadership through numerous educational initiatives, economic investments, and international collaborations, it could further enhance its environmental leadership within Qatar and the broader Gulf region through powerful environmental institutions such as the QBG. By utilizing its political connections and social capital to influence environmental policies and praxis in Qatar, the QBG could make a significant contribution to safeguarding the region's natural environment and its population from corporate interests and from overexploitation of the country and broader region's shared natural resources. Moreover, advocating for policies prioritizing social and environmental justice, conservation and equity – while increasing environmental consciousness and responsibility at the individual, collective, and statewide levels – may be of the most effective ways to truly actualize the Islamic and universal values the QBG wishes to promote.

More broadly, this case study of the Qur'anic Botanic Garden illustrates how Islamic environmentalism in Qatar and the wider region faces a formidable challenge when its logic demands promoting Islamic concepts and socio-ethical

ideals (e.g. *khilāfa*, *‘adāla*, *amāna*) yet its practice remains stunted due to structural opposition to those who dissent or critique the root causes of environmental destruction and social injustice. Islamic environmentalism may find some success in promoting ecological literacy and consciousness in alignment with Islamic principle and teachings. Yet, its broader potential lies in its ability to unite Muslims and people in the region behind a shared socio-environmental vision. Its efficacy also comes from effectively mobilizing people and amassing sufficient power to negotiate socio-political boundaries and advocate for alternative models of development. These models would prioritize the integrity of all people and honor planetary boundaries over economic growth or financial and political gain. Further research could be conducted on the various structural and institutional challenges Islamic environmentalism faces and any viable attempts to unite Arabs and Muslims across the region – while respecting and honoring their differences – under a shared religio-cultural identity and socio-environmental vision.

CHAPTER 8: CONCLUSION

8.1 Summary of Findings

This study aimed to investigate the various expressions of environmentalism in Qatar, particularly focusing on how Islamic ethics and teachings influence environmental thought and practice in Qatar. In addition to examining the role of Islamic ethical discourses in shaping environmental practice in Qatar, this research used an environmental governance framework to unveil the extent to which environmental decision-making power remains concentrated in the hands of the Qatari state while further examining power asymmetries between petro-state and non-state actors within Qatar. This framework was also used to centralize diverse perspectives and struggles of civil society actors in challenging the status quo and reforming socio-environmental relations in Qatar and the broader region.

To investigate the main questions of this study, preliminary data was gathered from a range of textual sources, including state policy documents, environmental reports, as well as government websites. These materials were used to examine the state's environmental messaging made available to the public and to understand state policies and laws governing the creation and activities of 'non-governmental' groups. Qualitative data was also gathered through field research in Qatar, which primarily consisted of semi-structured interviews with a range of academics and activists; social scientists and environmental scientists; religious scholars and leaders; as well as practitioners and policy experts. Informants included Qatari and GCC nationals, Arab and non-Arab expatriates, and working professionals from multiple Asian, North

American and European countries. Interviews explored a range of topics, including local and regional environmental vulnerabilities and priorities; environmental programming, initiatives, and strategies; cultural and religious environmental values; social and political challenges for individual environmentalists and environmental groups; personal motivations for engaging in environmental advocacy; and effective approaches to increasing environmental consciousness, mobilizing the public for environmental causes, and advocating for more eco-friendly policies and practices.

Numerous findings and patterns emerged from analyzing data gathered for this research. These findings will be discussed under the following headings: status of environmentalism in Qatar (8.1.1), Islamic environmental thought and practice (8.1.2), and obstacles to the rise of an environmental movement in Qatar (8.1.3). The following section (8.2) presents the broader implications of this research and offers multiple recommendations based on these findings. The last section (8.3) provides opportunities for future research on environmental advocacy in Qatar and the broader Gulf region.

8.1.1 Status of Environmentalism in Qatar

8.1.1.1 Non-State Environmentalism

Based on my field research, environmentalism among non-state actors in Qatar appears to be in its nascent stages of development, with more non-Arab and non-Qatari expatriates engaging in grassroots environmental advocacy of a predominately apolitical nature. While some individuals like Saif Al-Hajari have championed environmental causes in Qatar for decades, interest in protecting Qatar's living communities along with its natural habitats, ecosystems, biodiversity, and natural

resources has become a growing interest among more subsets of Qatar's population in recent years. This interest has risen due in part to the influence of American and European environmental movements and discourses as well as local concerns surrounding Qatar's air and water pollution, habitat degradation, and food, energy and water waste.

Several environmentalist groups (e.g., EcoMENA and Qatar Natural History Group) appear to combine aesthetic appreciation for nature with an interest in protecting local habitats and ecosystems. These groups demonstrate priorities resembling a combination of 'cult of wilderness', post-industrialist, and post-materialist values (see section 2.2.2). Charities and organizations seeking to provide sustenance for migrant workers (e.g., Wa'hab and Hifz Al Naema) appear to combine post-materialist values with mild 'environmentalism of the poor' (see section 2.2.2). Unlike other manifestations of 'environmentalism of the poor', poor migrant workers in Qatar do not hold any social or political power to advocate for themselves. While some environmentalists empathized with migrant workers and framed environmental struggles as intersectional pursuits toward social and environmental justice, these activists' views did not represent the broader interests and priorities of their respective organizations. Although American and European petroleum and energy corporations operating in Qatar and the surrounding region continue to colonize and control greater swaths of land for extractivist purposes, none of the environmental groups studied in this research appear to frame environmental struggles in post-colonial terms.

With the exception of indigenous environmental groups established by Saif Al-Hajari (e.g., Friends of the Environment Center and Friends of Nature) and regional initiatives with diverse involvement from the Gulf region (e.g., EcoMENA), the leadership and membership of most other prominent and visible environmental groups in Qatar (e.g., Qatar Natural History Group [QNHG], Doha Environmental Actions Project [DEAP], and Sustainable Qatar) are dominated primarily by non-Arab expatriates working or residing in Qatar, with minimal to no involvement from GCC or Qatari nationals. Even organizations intended to mobilize Arabs for environmental causes (e.g., Arab Youth Climate Movement Qatar) were spearheaded by non-Qataris and non-Arabs at the time of my field research. Some Qatari nationals have joined the environmental scene with engagement in existing programs (e.g., DEAP's beach cleanups) and some young nationals have created their own companies or initiatives (e.g., Elite Paper Recycling, Greener Future, and Faseelah) focused on issues such as recycling, raising awareness about plastic pollution, and the value of sustainable living. Historically more established charitable or environmental organizations (e.g., Hifz Alnaema and Qatar Botanic Garden) remain state-sponsored and directed by Qatari nationals with non-Qatari Arab expatriates constituting most of their employees.

Although more Qataris are gradually increasing their contributions and leadership of environmental initiatives in Qatar, lack of sufficient environmental consciousness and public engagement surrounding environmental issues among Qatari nationals is arguably one of the biggest hindrances to the rise of an indigenous environmental movement in this country. Qatar, like other Gulf countries, remains a

transient place with environmental organizations experiencing high turnover rates as expatriates reside in the country for limited periods of time. Although Qatari nationals represent less than 15% of the Qatari population, they have the most influence on the country's politics as its most indigenous, resident Arab population.

Further research needs to be conducted on why Qataris do not exhibit higher representation in environmental groups and initiatives. Based on my field research and interviews with many informants, this lack of effective representation appears to be linked to multiple cultural, social and political factors. These factors include the lack of deep awareness and understanding of the country and region's local environmental conditions, habitats, threats, and vulnerabilities. This lack of awareness is arguably orchestrated deliberately for political reasons to protect the interests of the petro-state and its corporate allies. Concealing the country's environmental degradation also retains the country's positive public image, which serves to further protect and advance the political and economic interests of the state regionally and globally.

Another potential reason why Qataris are not effectively involved in environmental advocacy is their lack of feeling a sense of ownership of Qatar's natural heritage. This issue, according to some informants, is arguably due to the prevalence of government ownership of land in Qatar, which does not encourage Qataris to care about the land since it belongs to the state—not its people. Another critical factor possibly contributing to Qataris' minimal involvement in environmental causes is their insufficient civic power to produce any meaningful change. While this population matters most in terms of potential influence on the country's political

economy, state legitimacy is strategically established among Qatari nationals through abundant provisions and social welfare services. These strategies effectively acquiesce citizens, reduce opportunities for civic engagement, and minimize their ability to make decisions regarding the usage of their land and natural resources. Yet, Qatari nationals' desire for contribution may remain dampened by the aforementioned feeling of lack of ownership over the very land they inhabit.

Other potential cultural factors hindering Qataris' involvement in environmental groups include the invisible socio-cultural rifts and, to a certain extent, language barriers between Qatari nationals and expatriates working or residing in Qatar. Another related issue is the dominant perception of community organizing/activism as strange or alien in a monarchic state dominated by top-down approaches and a society traditionally organized based on tribal affiliation and family relations. Although these cultural factors may be considered formidable obstacles, they are arguably more surmountable than the political and economic factors hindering the country's citizens from amassing sufficient power to mobilize for the sake of protecting and sustaining their people, lands and natural resources. If Qataris become deeply cognizant of how their health and ecosystems are harmed by air and water pollution, for example, or the extent to which their coasts and livelihood are threatened by sea level rise and potential displacement, they may be more inclined to unite with people of various ethnic and cultural backgrounds to resolve environmental problems affecting the entire region and its inhabitants.

Two other problematic features of environmental advocacy in Qatar concern the apolitical nature of most environmental causes and the lack of clear linkages

between social injustice, inequities, and environmental degradation. These two issues are interconnected as politicizing environmental issues advances the critique of anthropogenic activities beyond individual behaviors and relatively minor offenses (e.g., littering or discarding single-use plastics) to question broader unjust economic systems complicit in creating environmental problems threatening living communities worldwide and jeopardizing the integrity and resilience of regional and global ecosystems. Adopting a political approach to environmental advocacy allows critiquing dominant economic models and the unchecked power of petro-state actors and their extractivist practices. These powers advance state and corporate interests while deepening racial, spatial, and socio-economic divides between wealthy elites and the rest of society—particularly low-income migrant workers representing the poorest, most marginalized and most voiceless segments of the population.

Although several informants connected environmental realities to social injustices in the region and globally, these observations were made individually or anonymously and did not represent the approach of any environmental group or organization featured in my research. While targeting the root causes of environmental problems necessitates adopting such a political approach, the latter does not appear to be feasible or prudent for non-state actors seeking to establish themselves as credible environmental organizations compliant with the laws of the state. According to my field research, fear of political consequences hinders not only expatriates, but also Qatari nationals, from criticizing the state and its economic or environmental policies. For Qatari nationals, these consequences may include imprisonment or citizenship revocation, which would not be publicized through state-

controlled media outlets in the interest of protecting the state's public image in the region and worldwide.

8.1.1.2 State Environmentalism

State environmental discourses appear to adopt predominately technocratic and market-based approaches to addressing and resolving environmental problems.⁸⁷ Even though environmental governance remains highly centralized in the hands of state agencies and petroleum companies, some aspects of neoliberal thought and logic appear to influence environmental discourses, policies and praxis in Qatar. In line with neoliberal and market environmentalist approaches, official government documents (e.g., Qatar National Vision 2030) project a commitment to reconciling and harmonizing between economic and environmental goals. Yet, deeper examination of state policies and practice reveal how environmental problems do not lead the government to question the state's overwhelming dependence on hydrocarbons or critique the relentless pursuit of economic growth leading to ecological degradation and disruption of climate systems regionally and globally. Instead, environmental problems have driven state leaders and policy makers to justify their energy policies, adopt technical downstream fixes and solutions, and invest in creating new markets for the sake of profit and increased capital accumulation.

⁸⁷ Although the Qatari state has produced numerous environmental policy documents and strategic action plans before and after I began this project, current research (e.g., Cochrane & Al-Hababi, 2023) continues to demonstrate predominantly market-based and technocratic approaches to resolving environmental issues as well as major gaps between claimed environmental targets and the relevant institutional capacities to implement proposed strategies or achieve stated targets. These gaps are also evident between environmental laws and regulations on the one hand and the capacity or political willpower to implement these laws and enforce environmental regulations on the other.

My field research, including one interview with a highly prominent and influential anonymous government representative, reveals a market environmentalist approach in Qatar through the portrayal of liquid natural gas (LNG) as superior to other fossil fuels. LNG is described as more powerful (in terms of energy production), more helpful in reducing global carbon emissions, and 'cleaner' than coal (Al-Mohannadi & Al-Mohannadi, 2023). This cleanliness is framed in terms of lowering emissions of toxic substances (e.g., SO_x [sulfur oxides] and NO_x [nitrogen oxides]) detrimental to people's respiratory systems, despite the largest state-owned energy company in Qatar acknowledging the presence of high concentrations of these toxic substances (see section 5.1). Since Qatar is the world's largest supplier of LNG and relies mostly on gas to produce power for domestic purposes, this argument perfectly suits neoliberalized corporations profiting from the exploration, extraction, and refinement of liquid natural gas in Qatar.

Rather than Qatar focusing on upstream solutions and drastically reducing carbon emissions by divesting from hydrocarbons, for example, neoliberal and market-based approaches to resolving the problem of carbon emissions manifest in the creation of new markets and products (e.g., 'green concrete') using these CO₂ emissions. Some petroleum elites and ministerial representatives in Qatar perceive this commodification of carbon as more beneficial and profitable than merely neutralizing emissions through, for example, carbon sequestration and storage (CSS). The country also produces solar panel materials (polysilicon) and continues to invest in advancing solar energy research while not fully investing in the full-scale deployment of solar panels, which local environmental research institutions

indicate is one of the most conducive sources of power generation given the high solar radiation levels throughout Qatar.

Privatization, one of the markers of neoliberalized environmental governance (Apostolopoulou et al., 2021), has also increased in Qatar over the last several decades. This phenomenon manifests in Qatar through the formation of public-private partnerships (PPPs) between government and private actors. The formation of PPPs has been a consistent policy adopted by the state of Qatar and its state owned petroleum company Qatar Energy (formerly Qatar Petroleum). Numerous examples illustrate this phenomenon specifically in the energy and water sector. In the late 90s/early 2000s, the government granted control over electricity generation and water production—originally the responsibilities of the Ministry of Water and Electricity—to Qatar Electricity and Water Company (QEWC) and then to Kahramaa or Qatar General Electricity and Water Corporation (Smith, n.d.; Lambert, 2013). Qatar also authorized Dolphin Energy Ltd, an international joint venture established in 1999, to develop onshore and offshore infrastructures in Qatar while also operating on multiple wells in its North Field reservoir (Lambert, 2013). Dolphin Energy Ltd is a foreign PPP between Abu Dhabi's state-owned investment fund Mubadala and two private oil companies based in the USA (Occidental Petroleum) and France (Total; Lambert, 2013).

The state of Qatar has explicitly encouraged the formation of PPPs in its official documents, including the QNV 2030 and National Development Strategy 2018-2022 (Biygautane, 2017; Smith, n.d.). It has also supported these partnerships with a law introduced in 2019 aiming to regulate joint projects between

government and private actors (Public-private partnership, 2020). PPPs with major petroleum companies are viewed favorably as they attract capital and increase foreign investments as well as job opportunities. They are also welcomed as a way to distribute financial risks incurred by large ventures; aid in selling the large volumes of LNG produced; and secure military protection from relatively larger states (Lambert, 2013; Smith, n.d.). Yet, what often goes unmentioned is how these government partnerships with private companies renegotiate the division between public and private spheres – and corporate polluters and government regulators – while allowing major private companies to influence environmental decision-making and resource regulation and allocation in line with market-based logics and financial interests of national and international/transnational corporate elites. Increased privatization may, indeed, result in economic optimization. Yet, the renewed capital accumulation for powerful economic elites continues without these actors bearing the burden of ecological degradation or socio-environmental injustices and inequities exacerbated by the prevailing development model from which they profit.

Neoliberal logic and market environmentalism also manifest in the way state and corporate actors in Qatar ally and collaborate to organize conferences and disseminate information and policy recommendations in line with market-based logics and approaches. One example is the Qatar Climate Change Conference held in 2021 shortly before the convention of the 26th UN Climate Change Conference of the Parties [COP 26] in Glasgow, Scotland. Organized by QF and sponsored by ExxonMobil and Qatar Fund for Development, this conference sought to address

climate change challenges “without impeding Qatar’s hydrocarbon-based industries and economic prosperity” (Al-Ghamdi & Al-Thani, 2021, p. iii). The conference also explicitly proposed market-driven solutions as effective ways of mitigating climate change impacts. Aside from supporting downstream solutions like carbon capture, carbon pricing is boldly presented in this conference as “the single most effective way to mitigate climate change impacts at a lower cost to society” (Al-Ghamdi & Al-Thani, 2021, p. 27). This approach was lauded for its ability to incentivize efficient operation of companies, decrease demand for goods and services producing high carbon emissions, and encourage companies’ investment in favorable technologies such as CSS.

The net result of such collaborative projects between state and corporate entities is reinforcing the status quo of fossil fuel dependence as beneficial for economic growth and development while depoliticizing climate discourses, thereby undermining social justice concerns and human/ecological harms resulting from pollution and environmental degradation caused by these petro-state actors’ extractivist activities. Such depoliticized discourses eclipse socio-political concerns regarding Qatar’s development model and heavy reliance on migrant labor, which deepen inequalities and injustices along ethnic and racial lines. Meanwhile, the state benefits from the public appearance of engaging in climate agreements and setting climate-friendly goals (e.g., a carbon-neutral World Cup 2022) while playing linguistic acrobatics with its agencies and corporations⁸⁸ at critical times to appear

⁸⁸ Qatar Petroleum changed its name to Qatar Energy in October, 2021 (close to three weeks before COP 26). Around the same time, the Ministry of Municipality and Environment (MME) became the Ministry of Environment and Climate Change.

more economically diversified away from fossil fuels or more focused on climate change solutions. These political moves may aid in reducing global critique of the state and increasing its legitimacy in the eyes of global actors and investors, yet they mask an unyielding commitment to business as usual and the continued concentration of power over environmental decisions not in the hands of the royal family or any environmental ministry,⁸⁹ but specifically within the Ministry of Energy and Qatar's national petroleum company (renamed Qatar Energy).

At the time of my field research and this writing, the Minister of Energy and the CEO of Qatar Energy was the same person (His Highness Saad Sherida al-Kaabi). This strategic straddling of state agencies and companies – along with the tactical positioning of petroleum engineers throughout state ministries – demonstrates the powerful marriage between state and corporate interests as well as the challenge of disentangling government regulators from corporate polluters. The powerful petro-state alliance disincentivizes the adoption of new environmental policies and stricter regulations against polluting companies while further entrenching the state's political economy within the global neoliberal economic order prioritizing economic growth and profits over the pursuit of equity, justice, and welfare for all living communities.

⁸⁹ During my field research, the MME (renamed Ministry of Environment and Climate Change) was critiqued for being unqualified to address the numerous environmental issues facing the country (e.g., air and water pollution, marine and terrestrial biodiversity conservation, and habitat preservation). Its departments are arguably not equipped with the proper resources (knowledgeable of particular environmental realities, training in environmental sciences, and the power to produce policies and decisions regarding land usage and extractivist activities). While it has dedicated efforts to turtle conservation and tree-planting, for example, Qatar's environmental ministry does not possess the requisite power or means to tackle broader political challenges underlying Qatar's major environmental problems.

8.1.2 Islamic Environmental Thought & Practice

My field research and interviews revealed how the influence of Islamic ethics on environmental discourses and practices in Qatar varies considerably based on the religious, ethnic and educational background – as well as the age – of individuals spearheading particular organizations and institutions. Environmental groups and research institutions led and/or dominated by young or middle-aged expatriates from different European or North American countries (e.g., DEAP, QNHG, Sustainable Qatar, and QEERI) demonstrated highly secular and pragmatic reasons for focusing on environmental issues and causes.⁹⁰ Their websites and/or social media pages as well as interview responses of some leaders and representatives were also void of references to religious or spiritual concepts and motivations. While some informants representing these groups believed Islamic ethics and values should play a bigger role in shaping environmental behavior in the country and region, the organizations with which they worked did not draw on Islamic principles or teachings as part of their philosophy, ethos or mission.

Environmental groups formed or spearheaded by young Muslim Qatari nationals (e.g., Greener Future and Faseelah) exhibited similar trends as the secularly oriented groups above. Interview responses of their leaders (and other young Qatari environmental scientists/activists) also did not draw on religious language or strategies in promoting environmental causes.⁹¹ The latter may reflect implicit,

⁹⁰ As an organization, Arab Youth Climate Movement Qatar used secular language and approaches, but my interview with one of its leaders (Syed Mohammed Showkath, an Indian expatriate) demonstrated clear religious language and incentives for focusing on climate change and environmental protection in the region.

⁹¹ One of these young Qatari informants also viewed the use of fear-inducing deterrent religious language (e.g., sins, punishment, etc.) by some environmental advocates as ineffective in motivating

“embedded environmentalism” (Baugh 2019) or demonstrate a lack of religious literacy preventing activists from making clear connections between religious teachings and environmental protection. This trend may also demonstrate the influence of Western secular education on environmental advocacy among young Qatari nationals.

Non-Arab Muslim expatriates leading charitable groups (e.g., Wa’hab) or who were active in environmental organizations (e.g., Arab Youth Climate Movement Qatar) used religious arguments for their social/environmental advocacy and referenced some scriptural texts and prophetic teachings in their promotion of social and ecological values (e.g., justice, equity, and moderation). These informants also shared experiences of witnessing poverty in their home countries (e.g., India) that inclined them toward becoming socially or environmentally active when they moved to Qatar. Of all the informants I interviewed, middle-aged/older Muslim Arab expatriates and Qatari/GCC nationals working for local or regional groups, charities, and institutions (e.g., Hifz Alnaema, Qatar Botanic Garden, HBKU, EcoMENA) revealed the most explicit use of religious language along with a clear commitment to promoting socio-environmental reform using an Islamic frame of reference.⁹² Not only did these informants root their explanations for engaging in environmental advocacy within an Islamic worldview; they also strongly believed religion can play a major role in motivating positive changes in environmental attitudes and behaviors within society. Many of these informants studied Islam vocationally or had a personal

environmental behavioral change, and thereby considered the use of religious references as disadvantageous to the environmental agenda in Qatar.

⁹² One American scholar (Joseph Lumbard) who works at HBKU’s College of Islamic Studies also falls in this category.

interest in studying various Islamic sciences. As such, they shared relatively deeper reflections on the potential influence of Islam's scriptural texts and intellectual tradition on socio-environmental relations in a Muslim country like Qatar. Islamic studies scholars and academics at HBKU's College of Islamic Studies and CILE research center offered the greatest insights into challenges and opportunities for advancing Islamic environmental thought from both theoretical and practical points of view. Perspectives from CILE were particularly important to feature in my research because this institution prioritizes recentralizing ethics and renewing Islamic legal and ethical thought in contemporary discourses pertaining to multiple relevant fields, including economics, politics, migration and human rights, education, and the environment.⁹³

With respect to epistemological and methodological concerns, CIS and CILE scholars stressed the value of adopting both interdisciplinary and transdisciplinary approaches to advancing Islamic environmental thought. These approaches allow for drawing upon ethical deliberations across the various Islamic disciplines while also benefiting from knowledge and wisdom in other fields (e.g., Western philosophy, economics, and bioethics). Multiple reasons were cited for the lack of substantial contributions to contemporary Islamic environmental discourses, including historical rifts between religious and political leadership causing religion to lose its influence on social, political and economic matters. Another current problem is the lack of

⁹³ The Acting Director of CILE at the time of this writing (Mohammed Ghaly) is also the chief editor of the *Journal of Islamic Ethics*, an academic journal publishing peer-reviewed articles on a range of topics including ecological and environmental issues. Associate editors of this journal at the time of this writing were Emad Shahin (former dean of the College of Islamic Studies at HBKU) and Mutaz Al-Khatib (associate professor of methodology and ethics and coordinator of the Master's program in Applied Islamic Ethics at CIS).

sufficient scholars trained in Islamic studies and inter/transdisciplinary approaches who can conduct environmental research and also train and educate others using these methodologies. Yet, another problem is religious scholars contributing more to perceived urgent issues (e.g., Islamic finance, biomedical ethics, etc.) while not considering environmental issues as pressing and consequential in the present.

Some informants also believed Islam and Muslims are not responsible for resolving environmental problems originating in the West. According to other informants, some Muslims do not embrace environmental agendas because they believe such concerns stem from modern and Western thinking as opposed to the religion itself. Yet, other informants highlighted the problem of Muslims idolizing or blindly following the West. These Muslims respond to intellectual prompts from Western thinkers and activists while not developing paradigms from within the Islamic tradition to understand the world and make substantial intellectual contributions rooted within revelation and scripture.

These perspectives reveal additional problems hindering substantial contributions from Muslim scholars and thinkers on environmentalism in Qatar. The perception of environmental issues as relatively unimportant, inconsequential, or as relevant only to future (not present) generations reveals widespread lack of consciousness of global environmental changes and realities related to climate change and extreme weather events, for example, threatening the health and integrity of human and non-human living communities in the present. Considering environmental problems as the West's problem also overlooks the numerous ways in which governments in the Muslim world do not prioritize environmental reform while also

being responsible for contributing to global environmental problems (e.g., fueling the world's fossil fuel addiction). Moreover, perceiving environmental concern as alien to Islam demonstrates some scholars' inability to connect scriptural principles, values, and teachings with contemporary issues such as climate change, air and water pollution, biodiversity loss, and desertification. Advancing Islamic environmental thought on the environment requires not only epistemic rooting within Islamic scripture, greater environmental/religious literacy, and advanced training in inter/transdisciplinary methodologies. Muslim scholars must also be equipped with deeper understanding of social, political and economic systems perpetuating social and environmental injustice as well as the courage to criticize these systems in order to secure the rights of people and other communities to live and thrive in healthy environments.

Within on-going intellectual environmental debates, many informants considered the ontological role and existential function of human beings as critical to advancing contemporary Islamic environmental thought. Unlike some Muslims scholars in the West who criticize anthropocentrism for its contribution to environmental degradation, many Muslim scholars I interviewed in Qatar insisted on the value of maintaining an anthropocentric approach to socio-environmental relations. Some informants suggested needing to reconceptualize the human role of *khalīfa* (vicegerent), not for the sake of decentering human beings, but for the purpose of elevating the moral standing of other creatures. Most informants affirmed the central role of human beings within the cosmos and considered *khilāfa* a beneficial concept for environmental causes as it reinforces human responsibility and

accountability before God. According to multiple informants, other foundational Qur'anic concepts that need recentralizing include *'ubūdiyya* (slavehood) before God as well as *i'timāniyya* (trusteeship). These ideas were perceived as beneficial because they emphasize notions of servitude and submission to God's will and laws. Focusing on nature rights was also considered important in centralizing the intrinsic value of other creatures and promoting greater respect and care for the natural world.

With respect to environmental practice in Qatar, informants acknowledged the gaping rift between Islam's ecological values and teachings on one hand and Muslims' environmental attitudes and behavior on the other. Informants provided various explanations for this disparity, including the presence of excess wealth and subsequent waste and overconsumption. They also problematized people's disconnection from the natural world, lack of environmental education, as well as a narrow-minded approach to worship that reduces religious practice to devotional acts (e.g., prayer, fasting, etc.). Some scholars argued that these problems stem from deeper challenges in the way Muslims undermine their religious heritage and fail to see its relevance or value within the public sphere. Other informants problematized religious teaching that focuses on ritualistic practice and rote memorization as opposed to contemporary ways to apply religious values and teachings in the real world, particularly in one's interaction with the natural environment.

While some informants stressed the importance of enforcing environmental laws to disincentivize environmental pollution or degradation and to encourage more environmentally friendly practices, others argued that religious and spiritual messaging holds more power to create a shift in people's inner ethical orientations

and outward actions. Although some young Qatari informants did not consider religion an effective tool for inspiring Qataris to become more environmentally conscious, relatively older Arab Muslim scholars (and even some non-Muslim environmental activists) considered it paramount to draw on faith-based ecological meanings as a means of reforming environmental attitudes and practices in line with Islamic principles, values, and teachings. These differing perspectives reveal deeper challenges related to the strength of young Qataris' religious identity and the extent to which religion practically shapes their attitudes, worldviews, and lifestyles. In addition to promoting a more holistic approach to worship within religious education in Qatar, Islamic environmentalism can apparently benefit more from framing environmental advocacy as a means to attaining closeness to God along with achieving greater spiritual purification, moral reform, and actualization of God's will and laws.

Many informants believed imams have great potential to influence Muslims' environmental attitudes and practices in Qatar. Imams were described as intermediaries between religious scholars and the common people,⁹⁴ and religious sermons were portrayed as valuable mediums for disseminating religious knowledge and religious discourses to the masses. Yet, almost all informants discussing the role of imams stated that they never or rarely heard sermons in Qatar addressing contemporary environmental issues from an Islamic perspective or framing

⁹⁴ Some imams are also religious scholars, jurists, and muftis who are highly trained in the Islamic sciences and who have a direct link with the broader public through Friday sermons, public lectures, etc. Yusuf Al-Qaradawi (d. 2022) is one such scholar who resided in Qatar for decades and had notably given entire lectures and sermons (and also penned books and articles) on environmental care from an Islamic perspective in the light of contemporary ecological challenges.

environmental care as a form of worship. Muslim scholars attributed this phenomenon in part to the marginalization of imams within the public sphere and a reductionist approach to their role as “just” prayer leaders. Some informants also believed this apparent lack of concern for the environment was due to imams not having sufficient environmental knowledge and ecological awareness. Some also argued that imams themselves adopt a reductionist approach to religion making them focus on theological beliefs, philosophical arguments, or hereafter-centered motivations as opposed to articulating meaningful reflections on societal or global challenges such as poverty, unemployment, and climate change. This reductionist approach may be caused/exacerbated by many factors including the marginalization of imams, government control over religious sermons, and imams’ lack of freedom to speak their mind—all of which may decrease investment in training imams to make them more informed and influential religious figures in society.

Informants discussed the potential of facilitating trainings for imams to provide them with the requisite ecological knowledge and understanding of particular socio-environmental realities. These trainings could present ways for imams to impact Muslim congregants’ attitudes towards nature and understanding of their responsibility toward the natural world in the light of Islamic ethical values and contemporary environmental problems. Aside from focusing on the spiritual dimension of socio-environmental relations, imams could be provided with ways to elucidate the worldly consequences of Muslims’ environmental behaviors for the health and integrity of natural ecological systems. Since religious sermons are governed by many limitations and restrictions, environmental advocates can present

these trainings to relevant government officials and ministerial representatives as means for promoting environmental stewardship, reducing waste and overconsumption, and protecting the country's resources and natural heritage.

In addition to Muslim scholars and religious leaders, Islamic environmental groups and organizations represent other mediums for influencing Muslims' understanding of the natural world and their responsibility towards it. This research featured the Qur'anic Botanic Garden in Qatar as one of the most clear and illustrative examples of Islamic environmentalism in Qatar. This institution, which aims to research and educate people about the plants and vegetation mentioned in Islamic scripture, seeks to make a novel contribution to the concept of gardens influenced by Islamic teachings that distinguishes it from historic gardens in the Muslim world. Interviews with its founders and leaders revealed a shared commitment within the institution to promoting religious and cultural values, including goodness in word and action, environmental responsibility, moderation, conservation, charitable giving, and preservation of the country's Arab and natural heritage.

Although the QBG appears to be planned strategically and progressing steadily toward its numerous scientific, cultural, and religious objectives, my research elucidated some critical gaps between its lofty aspirations and its practical achievements on the ground. One of these glaring gaps is the absence of a permanent physical garden even after more than ten years of its inception. While interviews with QBG leaders and representatives revealed the institution's heavy reliance on religious and cultural values, as well as its pedagogical importance and contribution to environmental education, interviews with other environmentalists

revealed some disparities between the QBG's work and the top environmental challenges of the country (e.g., water scarcity, rising temperatures, air and water pollution). Some interviewees outside of QF and Education City perceived this project—along with other government-sponsored projects—as an instrument to promote Qatar's green image throughout the world without truly advancing the country's environmental sustainability.

In my critique of this institution, I proposed that such a well-established institution with far-reaching connections to royal elites, ministries, and policy makers could play a more significant role in influencing environmental decision-making in Qatar. I argue that the QBG can broaden its scope beyond apolitical scientific research and environmental education toward raising greater awareness about the broader threats that climate change and local environmental degradation pose to Qatar's biodiversity and natural habitats. It can also optimize on its reputability and social leverage to educate people about the anthropogenic causes of environmental pollution and degradation in Qatar, and to hold its government and major corporations accountable for the sake of people's physical and emotional health. I posit that the QBG has a responsibility to demonstrate to the public how people's health and wellbeing are inextricably linked to the integrity of Qatar's flora and fauna, its ecosystems, and the broader region's marine and terrestrial environments. Moreover, advocating for policies that prioritize social and environmental justice, conservation and equity – while promoting environmental consciousness and responsibility within society – can be one of the most effective ways for the QBG to actualize the Islamic and universal values it wishes to promote.

Yet, the QBG's inability to impact socio-environmental realities in Qatar reveals the difficulty of both critiquing and reforming development models and environmental policies to achieve more socially just and sustainable ends.

8.1.3 Obstacles Hindering an Environmental Movement in Qatar

Non-state actors and activists I interviewed described multiple socio-cultural, religious and political challenges for environmentalism in Qatar. These challenges can be considered formidable obstacles to an indigenous environmental movement from taking root and growing in Qatar. With respect to socio-cultural obstacles, one of these challenges relates to socio-environmental disconnects that emerged following the influx of wealth and lifestyle transformation after the discovery of oil and gas and rapid urbanization of Qatar. Informants drew distinctions between younger generations growing up in the oil and gas era versus older generations in Qatar witnessing more scarcity prior to the 1950s. The latter generations depended directly on natural resources for their survival and were arguably more connected to their natural environment through herding (for nomadic tribes) or fishing and pearl diving (for settling tribes). The younger generations, who grew up in an urban environment without depending directly on the integrity of the natural environment for their survival, are arguably more physically and spatially disconnected from the region's flora, fauna, and marine life. These lifestyle changes arguably lead to numerous disparities between these generations in poverty and wealth; moderation and consumption; and environmental attitudes and practices, despite many younger Qataris professing care and concern for the natural environment through national surveys.

Another major challenge environmentalists described revolves around the incongruence between religious beliefs and practices hindering a pervasive environmental ethic inspired by indigenous religious teachings and values. Some informants problematized Muslims' self-congratulatory attitudes as exemplified in claiming to be environmentalists simply due to being Muslim—even though their actions (e.g., littering or wasting water) do not align with religious directives in their scripture. Others problematized Muslims' cultural approach to religion, arguing that Muslims attend Friday prayers, for example, as a traditional practice not as a devotional one. This perception of religion as merely cultural arguably results in religious values and teachings not translating into action. Many informants expressed particular frustration with Muslims' wasteful habits especially more visible and heightened during the month of Ramadan. This wastefulness was attributed to Muslims not internalizing the spiritual and religious objectives of fasting while also portraying a distorted and perverted understanding of the religious and cultural virtue of generosity.

While some informants perceived religion as irrelevant or eclipsed by cultural attitudes, most other informants believed religious beliefs have the potential to reshape cultural norms and reform religious practices to help advance environmental goals in the region. Although increasing religious environmental literacy within the population is not considered the most expedient way to reform socio-environmental relations and protect the region's natural environment from increased degradation and destruction, reconciling people's religious beliefs with Islam's ethical and environmental teachings is considered an important long-term

investment for inculcating ecological consciousness rooted in religious and cultural values indigenous to the region. Most environmental activists also concurred with Muslim scholars I interviewed on the significant role religious leaders (including imams) can play in helping people understand and implement Islam's ecological values and teachings as a means of gaining nearness to God and conserving local and regional resources.

Another socio-cultural challenge concerns certain socio-economic divisions and inequities within society that are arguably impeding a holistic, socially conscious environmental movement from growing in Qatar. Some informants spoke of the deeply entrenched nationalistic and racialized social hierarchy in Qatar relegating low-skilled migrant workers from Asian and African countries to the lowest socio-economic ranks. While acknowledging the country's need for migrant laborers for the country's continued urban development, they expressed dismay at the marginalization of laborers through various forms of residential and social segregation. Despite facing different forms of exploitation, discrimination, and health problems due to disproportionate exposure to particular environmental harms (e.g., heat stress and air pollution), many migrant workers exhibit self-censorship and reluctance to complain or expose the reality of their living/working conditions or financial situations out of fear of losing their jobs and being deported back to their home countries.

Even though some charities featured in this research believe migrant workers receive sufficient food and equitable incomes, other specialized informants revealed disparities and inconsistencies between migrant worker rights and their

actual living, health and financial conditions. Some of these workers not only receive insufficient compensation, but also suffer from malnutrition and food insecurity. These disparities can be further juxtaposed to the quality of life of most nationals and expatriates residing in central parts of Doha who enjoy high standards of living, free mobility and access to public places, and who consume and waste copious amounts of food and water without facing any legal or social repercussions.

These invisibilized inequities keep social justice advocates and environmentalists in the dark while hindering meaningful connection between subpopulations in Qatar. Without a thorough understanding of migrant workers' social and environmental struggles, environmentalists cannot adopt intersectional approaches to environmentalism that aim to achieve socio-environmental justice for Qatar's entire population. Granting more political influence to people who view social and environmental justice struggles as thoroughly intertwined can lead to the advancement and implementation of more equitable policies and laws aiming to protect people's dignity as well as their surrounding habitats and ecosystems. Yet, environmentalists face multiple challenges hindering their advocacy and political engagement—even when focused mainly on Qatar's natural environment.

One major political obstacle described by multiple informants is the inability of environmental scientists and activists—Qataris and non-Qataris alike—to access environmental data and environmental indicators (e.g., greenhouse gas emissions, air pollution, soil erosion, etc.). While the country needs more environmental research, several Qatari and non-Qatari environmentalists believed that some important environmental/ecological data already exists, but it has been strategically

concealed or not disseminated sufficiently to the public. Some environmental scientists conduct environmental research or impact assessments for the government and certain petroleum companies, but they are legally restricted from divulging or disseminating their research findings to the public. The inaccessibility of environmental data keeps the public thoroughly unaware of critical environmental issues, particularly Qatar's own environmental vulnerability to threats such as air pollution, water scarcity, and sea level rise.

Some informants attributed this lack of transparency and concealment of potentially alarming environmental data or projections to the state's interest in protecting its global image—and, by extension, its global ambitions. Withholding critical environmental data deprives environmental advocates or critics from possessing any proof for their “baseless” claims. According to some informants, criticizing the state without evidence can be used to discredit environmental advocates. As such, they argued that environmentalists in Qatar must maintain a positive image of the state so as not to be discredited and delegitimized, which would not only jeopardize these activists' freedoms, but also undermine the potential and success of any environmental movement in Qatar.

One of the problematic effects of withholding environmental data from environmental advocates and the broader public is the continued concentration of decision-making power regarding land and natural resource use within the hands of the state. Without access to scientifically backed environmental knowledge and data, coupled with a lack of political agency, people cannot equip themselves with the requisite tools to demand government accountability. As such, state powers remain

the only credible authorities who can communicate about environmental conditions and decisions. Such heavy state control reduces the possibility of any indigenous or local epistemic communities challenging the government or revealing any scientific information exposing the state's shortcomings. Moreover, this state control of environmental knowledge ensures that Qatar's political and economic interests remain preserved while the state maintains its power and credibility on the stage of international politics—despite its domestic socio-environmental failures and the political restrictions it places on its people.

Another major challenge environmentalists face is strict government oversight over non-state activity and difficult processes for registering as non-profit organizations. Even prominent and reputable Qatari environmental scientists and activists (e.g., Saif al-Hajari) struggle with establishing environmental groups and organizations independent from strict government oversight. Although some environmental advocates choose the business route because it increases their credibility and influence amongst potential sponsors or investors, other individuals seeking to establish non-governmental charities or environmental initiatives find their pathway limited to registering themselves as commercial entities and for-profit companies.

Some informants perceived the limitations on non-state activism as a way to reduce criticism against the government related to particular matters believed to be the government's responsibility. Others believed government opposition to NGOs is related more to the government's negative perception of these groups as disruptive, uncontrollable, or threatening. This perceived threat is particularly more acute for

political forms of environmentalism (e.g., decarbonization proposals) perceived as jeopardizing the country's economy along with the power of political/economic elites highly invested in a carbon economy. While the government seeks to suppress any political or economic dissent in the present, some environmental scientists and activists believe continuing with business as usual threatens the country's economic prospects and longevity for both its human and non-human communities. Yet, multiple informants agreed on the political dangers for non-state actors engaging in government critique for both Qatari and non-Qatari citizens. These dangers range from visa non-renewal or deportation to imprisonment or revocation of citizenship. While some informants were willing to sacrifice their freedoms for the sake of the socio-environmental causes they support, they realized how the perception of being unpatriotic is ultimately a disservice to their socio-environmental agenda and any burgeoning environmental movements in Qatar and the broader region.

Environmentalists' struggles with political obstacles and legal barriers to collective organization and mobilization reveal deeper challenges with non-state actors securing their autonomy, credibility and independence. Pressuring non-state actors to become commercial entities demonstrates the hegemony of economic priorities and reveals how value-driven projects and initiatives in Qatar become subverted and reconfigured to meet financial and market-based objectives. Without much freedom to organize and fundraise due to strict regulations and government oversight, non-state actors cannot expand their educational outreach and amass sufficient power to influence political and economic decisions affecting the country's population and natural environment. In addition, making it illegal to engage in

political matters effectively criminalizes environmental activism that views environmental problems and struggles as inseparable from environmental politics and the broader political economy of Qatar. The government's restrictive policies and laws demonstrate the continued undermining of environmental priorities to protect both the interests of the state and economic interests of petroleum industries. By restricting and marginalizing certain forms of civic engagement and service, the government upholds a political and legal system that deprives people of basic civic rights in order to maintain political and decision-making power within the hands of top political and economic elites.

Another related political challenge is the hegemony of the petroleum industry and its powerful influence over environmental policies and practices in the country. This hegemony manifests in the way industrial leaders control government apparatuses, the education system, as well as the media such that environmental decision-making, research and public awareness (or lack thereof) continue to serve the industry's interests. The powerful elites in this industry – particularly those leading Qatar Energy (formerly Qatar Petroleum) – appear on all the boards of Qatar's ministries and have arguably had the greatest influence on shaping the past, present, and future energy development of the country along with its positive and negative consequences.

Despite present-day environmental vulnerabilities, some informants acknowledged and highlighted the positive effects of QE's energy systems and production that facilitated Qatar's rapid urban development and drastically uplifted Qataris' quality of life. Yet, they still criticized how the country remains locked into a

carbon economy without sufficient investment in decarbonization and renewable energy along with divestment from petroleum projects and products. With respect to renewable energy, several environmental scientists and physicists argued that full-scale deployment – not just researching – of solar energy in Qatar remains a problem of political will as opposed to technical capability or feasibility. As such, some informants believed the government’s publicized investment in scientific and technological research represents a form of greenwashing serving to divert attention away from Qatar’s lack of genuine commitment to investing in renewable energy and diversifying its economy beyond fossil fuels.

This research reveals how the petroleum industry has thoroughly infiltrated government agencies and aligned its economic interests with that of the state. This infiltration has arguably allowed petroleum elites to disproportionately shape discourses, institutions, and educational curricula to maintain an extractivist culture in which continued dependence on fossil fuels is considered an unquestionable given. Dominance of this extractivist culture (Perreault, 2018) within society facilitates and enables the continued manipulation of decision-making to further entrench and expand extractivist policies and praxis. Within this context, any knowledges, discourses, and voices challenging the dominant fossil fuel narrative are marginalized or stifled as they threaten the financial interests of petroleum companies along with the interest of the state in maintaining legitimacy by providing social services and a high standard of living for its people.

Moreover, the integration of petroleum companies into the apparatuses of government and civil society has not only fused public and private interests while

restructuring political, economic, and social priorities in line with extractivist and market-based logics. It has also eliminated the possibility of maintaining checks and balances by blurring the line between government regulators and environmental polluters. Allowing petroleum companies to monitor their own pollution while holding seats of power within government frees polluters from accountability to an independent authority, which ideally would enforce environmental regulations without conflict of interest influencing its implementation. The unchecked power of the petro-state incentivizes greater concealment from the public of the pollution's severity and subsequent environmental problems, while disincentivizing the creation/enforcement of new or stricter environmental regulations against polluting companies in line with emergent scientific realities.

The union of petroleum and state leaders has allowed for a configuration of the prevailing culture, energy policies and laws, education, and media to serve these leaders' mutually advantageous economic and political interests. Moreover, this powerful alliance has entrenched its capitalist and extractivist logics and infrastructure deeply within society. Maintaining this petro-state alliance necessitates restricting people's civic engagement and freedoms to access relevant information, organize, fundraise, and mobilize in ways that can challenge the petroleum industry's hegemonic power and capture of government.

Based on my field research and various environmentalists' perspectives in Qatar, the struggle for environmental protection and sustainability remains intimately intertwined with the struggle for freedom of speech, autonomy, and social justice. Interviews with multiple informants in Qatar revealed how discourses

on environmental issues that centralize the voices of indigenous people, local environmental scientists, and activists (along with the intersectionalities of these groups) can play a major role in elucidating the relationship between social and environmental concerns while empowering people to resist the petroleum industry's hegemony and demand a more equitable redistribution of political and decision-making power that gives ordinary Qataris an audible political voice.

8.2 Implications & Recommendations

As demonstrated in the previous section, state environmentalism appears to be dominated by technocratic, neoliberal and market environmentalist approaches with political and economic elites monopolizing environmental discourses and controlling environmental decision-making, education, and media coverage of environmental issues. Some state-sponsored environmental initiatives inspired by religious and cultural values have yielded educational, scientific, and charitable benefits. Yet, like almost all forms of non-state environmentalism, these state-sponsored initiatives tend to be dominated by apolitical approaches that do not tackle root causes of pollution and environmental degradation or demonstrate linkages between environmental degradation and present/future social welfare, health or wellbeing for all segments of the population in Qatar. Even environmental advocates who wish to politicize environmental problems do not hold sufficient power within the existing political economic system to speak on these issues without facing any legal repercussions.

Market environmentalism may afford Qatar more business opportunities and investment in downstream solutions for the state of Qatar, yet it does not spark or

inspire ethical reform in people's attitudes and behaviors toward the natural environment. As such, indigenous, religious, and value-based environmentalism can play a greater role in creating more substantial and long-term spiritual/ideational shifts in people's conception of natural resources while also addressing upstream challenges related to greed, power, and abundance. For an indigenous environmental movement to flourish in Qatar, environmental advocates must arguably utilize non-state platforms to mobilize for socio-environmental reform.

As some informants proposed, environmentalists can be more effective by circumventing government agencies or state-sponsored/controlled media and education systems in order to call people to environmental action. Some environmental groups have already utilized social media platforms such as Instagram and Facebook – and TikTok more recently – to raise awareness and mobilize Qataris and non-Qataris to engage in various environmental initiatives. These platforms can be utilized further to educate Qatar's population about environmental and climate-related challenges in inspiring and contextualized ways. Strategies can be developed by Qatari environmental advocates specifically to target and mobilize other Qataris using culturally and religiously rooted positive messaging highlighting their potential to create meaningful and beneficial contributions for their people and the land they inhabit.

Environmental advocates can also critique Qatar's economic and environmental policies on these platforms while still praising Qatar's achievements in providing safe and comfortable living for its citizens. Activists can unify their call for greater government transparency regarding environmental data and realities as well

as the need to invite external environmental monitors independent of petro-state agencies and companies in order to conduct environmental impact assessments and enforce new environmental regulations in the light of contemporary environmental realities. On a broader level, Qataris and their supporters can demand a drastic shift from quantitative (petroleum-fueled) models of development to clean, qualitative models that honor resource limitations and planetary boundaries while prioritizing people's spiritual and physical health and security over short-term financial gains and economic growth. These environmental advocates can also educate people on the social, racial and environmental disparities between Qatar's subpopulations and advocate for unity within Qatari society while calling for social and legal reforms that dismantle residential segregation and promote migrant workers' mental, physiological, and spiritual wellbeing.

With respect to environmental advocacy within the current political system, one of the most effective strategies is utilizing the power of social influence to reform people's attitudes toward behaviors considered socially acceptable or unacceptable. Many informants concurred that Qataris have profound respect, reverence and admiration for the royal family, including the Emir Sheikh Tamim and his mother Sheikha Moza. Although these royal figures do not steer the state's environmental decision-making, they can play a key role in inspiring people to become better environmental stewards through exemplary environmentalism (see section 3.4.2). As some informants suggested, recurrent social media posts exhibiting royal family members removing trash from the street, for example, enjoying small meals (versus expansive buffets), using solar panels on their homes, or holding social gatherings

with migrant workers can inspire tremendous attitudinal and behavioral change among Qataris specifically. When these actions are tied directly to cultural or religious motivations in social media posts and any public appearances, people who are not religiously inclined may perceive these actions as stemming from a cultural or religious ethos shaping Qataris' relationship with nature and people of significantly lower socioeconomic status. These associations may motivate Qataris to become more curious about their responsibility toward the environment and they may also help dissolve certain social and racial divisions in society.

Members of the royal family exhibiting pro-environmental behavior based on Islamic teachings could form an initial phase of radically increasing environmental consciousness in Qatar. When royal family members also repeatedly lead environmental initiatives and speak about the local effects of climate change, environmental degradation, and its root causes while bolstering the voice of concerned environmental advocates, both exemplary and holistic environmentalism (see sections 3.4.2 and 3.4.3) can flourish on a statewide level and draw tremendous support from Qatari citizens. Gaining additional support from Qatari citizens could help spark a more deeply rooted, indigenous environmental movement in Qatar. Fully politicizing environmental issues may prove challenging using this approach, but this strategy could serve the purpose of increasing Qataris' understanding of environmental issues and their commitment to mobilizing at a broader level for environmental causes.

With respect to religious environmental literacy, more collaborative efforts are needed to bridge intellectual advancements in Islamic environmental thought with

environmental messaging disseminated via religious sermons and religious forums at the grassroots level. While some religiously oriented environmental organizations invite religious scholars to speak about environmental issues from an Islamic perspective, religious environmentalism in Qatar appears to be highly compartmentalized with scholars and activists operating in separate and disjointed siloes. This compartmentalization leads to scholars advancing their ideas primarily within academic circles/conferences or scholarly platforms while remaining quite disconnected from local/regional environmental realities and initiatives. These disconnects also deprive environmental activists of contemporary wisdom and guidance from religious scholars, which makes prevailing secular environmentalist thought and strategies the primary influences on their activism.

To help bridge between these different stakeholders, activists valuing religious perspectives in Qatar can benefit from more rigorous training in the Islamic sciences focused on religious ecological teachings and ethical approaches to addressing environmental issues. On the other hand, religious scholars can benefit from more contextualized training on contemporary environmental issues from ecological and scientific perspectives. These scholars can also contribute more to advancing Islamic thought on important topics such as *iqtiṣād* (see section 3.3) and economics in the light of contemporary environmental challenges and the numerous linkages between social and environmental justice from an Islamic perspective.

In terms of collaborative efforts, religious scholars, ethicists, environmental scientists and activists can unite in creating proposed training programs for imams and religious leaders to address environmental issues more effectively with

religiously informed messaging. Scholars and activists, together, can present professional training proposals to relevant government officials in the hopes of training imams and religious leaders throughout the state on how to effectively address environmental issues and create deeply rooted cultural shifts in socio-environmental relations. These religious leaders must also exhibit more genuine environmentally conscious living to exemplify and encourage people to align their lifestyles with their values and religious convictions.

8.3 Opportunities for Future Research

Considering the limitations of this research along with its findings and analyses, numerous opportunities present themselves for conducting further research on environmentalism in Qatar and the broader region. Since this study focused mainly on environmentalism in Doha, more research can be conducted on environmental thought and practice in the outskirts of Doha. Ethnographic research and interviews with tribal representatives can bring to light more indigenous knowledge and practices among coastal and settling tribes in Qatar to identify how elders and indigenous communities continue to live sustainably. This research can also elucidate ecological challenges indigenous tribes face in maintaining sustainable practices within a rapidly modernizing and urbanizing country and region.

With respect to environmental education in Qatar, more research needs to be conducted on the quality and currency of environmental education both in private and public schools, and the extent to which religious values and messaging shape educational curricula. This research can also elucidate ecological, scientific, and religious gaps in these curricula that need to be filled with the guidance of biologists,

ecologists, and environmental scientists as well as religious scholars and leaders trained in the environmental sciences. Political and financial challenges can also be investigated with respect to revamping and updating public school and university curricula in the light of emerging scientific findings and contemporary environmental realities.

The importance of this research cannot be underestimated as most locals of relatively lower socioeconomic status educated through the public school system end up in government and ministerial jobs. Advancing the efficacy of government environmental agencies requires more rigorous trainings in the scientific and environmental sciences as applied directly to the local Qatari and Arabian Gulf context. Graduates from the public education system need to be equipped with the intellectual and practical skills and tools to address environmental challenges successfully in the region once they hold government posts. Yet, governmental ministries control the public school system, so there may be ample resistance to revamping the education system with the vision of producing graduates capable of critiquing environmental problems objectively and proposing creative solutions to resolving these problems beyond petroleum-centered, neoliberally-oriented, market-based, and technocratic solutions effectively maintaining the status quo.

Additional research can also be conducted on the content of Friday sermons and the role of imams in promoting environmental consciousness among Muslims. Interviews can be conducted with relevant ministerial representatives, religious scholars, and imams to further investigate the challenges related to incorporating contemporary religious environmental messaging in sermons and religious forums.

This research can also identify existing attempts to create imam trainings among environmental advocates and assess how different experts and stakeholders can be more involved in shaping the content of these trainings.

With respect to religious environmentalism on a more general level, further research needs to be conducted on apparently embedded (see section 3.1) or secular environmentalism to understand the various historical, political, and educational factors at play and why explicit religious environmentalism is not more prominent among young Qatari Muslims. This research can investigate the type of religious messaging produced by religious environmentalists and identify ways to reform this messaging to produce more successful attempts at building environmental consciousness based on religious scriptural texts and teachings. More research can also be conducted on the religious identity of young Qataris to assess the extent to which religious beliefs, values, and teachings influence their outlook and lifestyle more broadly. If religious environmental messaging does not inspire young Qataris, the problem may not lie in the type of messaging itself. These young individuals may be negotiating a new relationship with Islam—one in which their parents' religion may not serve as the primary influence on their worldview and behaviors. Researching young Qataris' relationship with religion can elucidate the extent to which Islamic activism – and Islamic environmentalism, more specifically – has any meaningful potential or future in Qatar.

Another important area to research is the political and economic obstacles and achievements in not only researching, but also deploying renewable energy, particularly solar energy and solar panels. Interviews can also be conducted with

environmental ministry representatives to investigate their ecological achievements and understand the challenges they face in adequately addressing environmental challenges in Qatar. Additional interviews with top government officials can also be conducted to investigate the various political and economic obstacles to adopting more qualitative models of development prioritizing the integrity of Qatar's natural environments and the health and wellbeing of the living communities it supports.

Further research can also be conducted on opportunities for environmental networking and collaboration across the Arab Gulf region. Since Arab Gulf countries face similar environmental challenges, environmental advocacy can be a great way to unite the peoples of these countries in pursuing a higher vision of environmental security and sustainability. This research can also highlight unique environmental organizations or collaborative efforts between various environmental groups and elucidate their missions, priorities and strategies as well as their challenges and achievements. Comparative research can also reveal the priorities of environmental groups and initiatives operating in similar coastal or inland regions. This research can particularly highlight the ways in which environmental advocates transcend socioeconomic, cultural, ethnic and racial differences or divisions to achieve mutually beneficial objectives.

Finally, regional research can focus more specifically on the intersection between social and environmental justice, highlighting the disproportionate health risks and environmental hazards low-income migrant workers face across the region, for example, as well as the broader threats people face throughout the region from air and water pollution as well as potential displacement due to threats from increasingly

intolerable temperatures and rising sea levels. Additional research can be conducted on the political challenges faced across the region in people's struggles for freedom of speech and independence from government restrictions and oversight, and any regional or collaborative efforts aimed at securing these rights. While liberation struggles within each country may not amass sufficient strength to reform hegemonic systems of power, Arabs and Muslims uniting across the region under shared religious/cultural identities and socio-environmental visions may prove more productive and successful. As such, any attempt to unite people through shared socio-environmental goals in the Arab Gulf region is worthy of critical research and investigation.

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APPENDIX: LIST OF INTERVIEWEES

Name	Affiliation (at the time of fieldwork)	Gender
1. Jose Saucedo	Doha Environmental Actions Project	Male
2. Syeed Showkath	Arab Youth Climate Movement Qatar	Male
3. Ali Al Qahtani	Hifz Al Naema	Male
4. Wardah Mamukoya	Wa'hab	Female
5. Mahjoob Zweiri	Qatar University (Gulf Studies)	Male
6. Radhouan Ben Hamadou	Qatar University (Biological & Environmental Sciences)	Male
7. Laurent Lambert	Doha Institute for Graduate Studies (Public Policy)	Male
8. Redhwan Saleh	Ministry of Endowments & Islamic Affairs	Male
9. Ray Jureidini	Hamad bin Khalifa University (Islamic Studies)	Male
10. Aisha Al Maadeed	Greener Future	Female
11. Saif Al-Hajari	QBG, Qatar Foundation, Friends of Nature	Male
12. Fethi Ahmed	Hamad bin Khalifa University (Islamic Studies)	Male
13. Mohammed Khalil	EcoMENA	Male
14. Thierry Lesales	Qatar Natural History Group	Male
15. Alex Amato	Qatar Green Building Council (QGBC)	Male
16. Chauki Lazhar	Hamad bin Khalifa University (Islamic Studies)	Male
17. Ruba Hinnawi	QGBC, Foundation for Environmental Education	Female
18. Yousef Al Horr	Gulf Organization for Research & Development	Male
19. Ehsan Shafiei	Zero Waste Qatar	Male
20. Joseph Lumbard	Hamad bin Khalifa University (Islamic Studies)	Male
21. Dalia El Toukhy	Kahramaa (Qatar General Electricity and Water Corporation)	Female
22. Marc Vermeersch	Qatar Environment & Energy Research Institute	Male
23. Mutaz Al-Khatib	Hamad bin Khalifa University (Islamic Studies)	Male
24. Fatima Al-Khulaifi	Qatar Botanic Garden	Female
25. Ahmed ElGharib	Qatar Botanic Garden	Male
26. Evren Tok	Hamad bin Khalifa University (Islamic Studies)	Male
27. Anonymous	--	Female
28. Anonymous	--	Male
29. Anonymous	--	Female
30. Anonymous	--	Female
31. Anonymous	--	Male