

Development and the Sacred: An Account of Reef Resource Management in the Maldives

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Abstract

While the Maldives is heavily dependent on its reef environments, rapid economic development is creating adverse impacts on these marine ecosystems. In an effort to explore alternative forms of resource management, this paper presents sacred beliefs that have guided the way traditional Maldivian communities have used, managed and governed their reef resources. The findings of this qualitative study, conducted in seven island communities of the Maldives, show that beliefs such as the Islamic concept of *Rizq*, humans as stewards of the earth and sentient non-human beings, drove traditional resource use and management practices. “Progress” in a globalised world has meant that nature has become part of the secular. We argue that there is a need to re-integrate the sacred into our resource management as this can potentially contribute to ongoing environmental conservation efforts.

Identifiers / Key words: Sacred beliefs, *Rizq*, Reef resources, Maldives

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1. Introduction

The Maldives is a community which is heavily dependent on coral reefs and the marine environment. The islands of the Maldives are formed of carbonate sediment grown in the surrounding reef ecosystem and the reefs protect these low lying islands from ocean waves. In addition to this, people depend on the reefs and reef resources for subsistence and income. The fishing and tourism sectors of the Maldives rely heavily on the country's reef and marine ecosystem. According to Wear (2016), both natural- and human-induced threats to coral reefs have increased dramatically since the 90s. Overfishing and destructive fishing, watershed-based pollution, marine-based pollution, coastal development, thermal stress and ocean acidification have been identified by Burke et al. (2011) as the main stressors for the reef systems. Increasing populations and associated human activity are leading to further increase in these stressors (Wear, 2016). Similar concerns exist in the Maldives.

In the last several decades, the Maldives have rapidly developed in terms of infrastructure and the economy. Interactions with communities for fieldwork have shown that most people want to see their islands "developed" like the capital Malé. Are the large concrete buildings, built harbours and seawalls that have replaced the island greenery and the natural house reef and lagoon really development? Achieving this ideology of development only as economic growth and built infrastructure, unfortunately, has many adverse impacts on our marine environment. The natural beach, lagoon and reefs of Malé are now a memory lost with the passing of generations.

In more recent times, widespread concern has been raised by citizens and especially environmental organisations and enthusiasts in the Maldives, over the large-scale destruction to the marine environment from development projects. In a joint press statement on the occasion of the World Environment Day 2018 (WED), 14 civil society organisations (CSOs) raised concerns that the government has failed to adequately protect the largely marine environment of the Maldives (Hassan, 2018). While the main focus of the statement was on the WED theme of single use plastics, the CSOs also stated that "the reclamation of reefs, lagoons, mangrove areas and wetlands in various parts of the country on the pretext of development is one of the biggest threats to our fragile environment" (Hassan, 2018, para 12).

Among these recent development initiatives is the airport development in the island of Kulhudhuffushi where the large wetland and mangrove area of the island, along with the lagoon, is being reclaimed (Zahid, 2017). There are several other projects of similar scale which will be discussed later in the paper. Much of the criticism by concerned environmental groups has ranged from the practical need for the projects, existing alternatives to the projects, lack of availability of environmental impact assessments (EIAs) for public viewing and or failure to

follow recommendations of EIAs during implementation. Although government dialogues and policies promote sustainable development, it is of concern that current focus on accelerated economic development may be unsustainable in the long term.

From these observations we have pondered over many questions on how our marine environment is being used, managed and governed. Are the current management approaches sufficient? Are there any missing elements? What measures need to be taken to strengthen management? How can sustainable practices be promoted? Such questions have also arisen in other resource management scenarios in the world. In the early 1980s, the World Commission on Environment and Development raised concerns regarding the impacts of development on the environment and urged nations to work towards a more sustainable development, that is a development that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987, para 27).

The search for alternative forms of management arose because of the problematic and artificial divide between mind and nature and the materialistic traditions informing ecology, economics and resource management (Berkes, 2012). Researchers have argued that conventional resource management practices are not achieving sustainability. A main argument for this is the materialistic use of resources with the assumption of them being infinite, and resource management efforts being very much rooted in this utilitarian worldview (Berkes & Folke, 1998; Ludwig, Hillborn & Walters, 1993). The need for adaptive management and a new systems approach where resources are part of the ecological and social systems have been identified by both researchers and managers (Berkes & Folke, 1998; Jansson, Koskoff, Hammer, Folke & Costanza, 1994). The authors emphasized the strong linkages between natural and social systems. Berkes & Folke (1998, p.4) argue that “the delineation between social and natural systems is artificial and arbitrary” and use the term social-ecological systems to emphasise the concept of humans-in-nature. While humans live in and impact natural systems, nature also impacts our lives, especially with its uncertainties. Social-ecological systems over time build resilience to these uncertainties (Folke, Biggs, Norström, Reyers & Rockström, 2016).

Spiritual and cultural beliefs and practices of indigenous and traditional communities are seen today as having forms of socio-ecological resilience that can be applicable in natural resource management to address current human impacts on the environment (MacKinnon, Williams & Waller, 2017). Recently, resource managers have been looking to traditional forms of resource management systems for alternative ways of managing natural resources (Berkes 2012; Johannes, 1998; Jostad, McAvoy & McDonald, 1996; McPherson et al. 2016). The Brundtland report has also highlighted that traditional knowledge has much to offer modern societies in terms of ways of managing natural ecosystems (World Commission on Environment and

Development, 1987, para 46).

One important component of indigenous management is the embedding of morality and ethics into the management approach. Moral or sacred values that reflect the understanding of humans being a part of nature, and respect and humility towards other parts of nature, are aspects of the indigenous management approach (Berkes, 2012; Gratani, Sutton, Butler, Bohensky & Foale, 2016; Selin, 2003). There is emerging interest in the idea that Indigenous practices and sacred beliefs have much to offer towards sustainable use of the environment, and not reducing resources to economics alone.

Based on a qualitative study conducted in seven island communities of the Maldives, this paper explores traditional beliefs and practices in reef resource management focusing on sacred beliefs that have guided the way Maldivian communities have used, managed and governed their reef resources. In the face of rapid economic development, we argue for the relevance and value of such sacred beliefs for contemporary natural resource management practices in the Maldives.

2. Development Initiatives and Environmental Destruction

The natural environment has been an important factor in the growth of the Maldivian economy. While the contribution of fisheries to the national Gross Domestic Product (GDP) has decreased over the years to 3.5% in 2016; there has been rapid development of the tourism sector with a contribution of 28.2% to the national GDP (Ministry of Environment and Energy, 2016). In the last five years, several development projects have created environmental controversies in communities across the Maldives. We present a few of these cases to illustrate some of the environmental concerns they have generated.

2.1 Kulhudhuffushi Airport

Kulhudhuffushi is a development centre in the north of the Maldives. The name of the island derives from a large wetland and mangrove area in the island, which is known to be one of the largest white clay wetlands and the densest black mangroves in the country (Save Maldives, 2018). The government has initiated a project to develop a domestic airport on the island (Figure 1). According to the EIA done for the airport development, in addition to 6 ha of the island, an additional 6.57 ha and 12.04 ha respectively will be reclaimed from the lagoon and wetland area for airport development (Zahid, 2017). The EIA, however, also identifies that the wetland is an environmentally sensitive area due to its unique environmental features. The mangrove and wetland areas are highly important in mitigating flooding.



Figure 1. Proposed concept for airport development in H.Dh. Kulhudhufushi (Source: Zahid, 2017)

This development sparked many controversies and criticisms in the local news and on social media, mainly about the destruction of the unique wetland. Non-residents of the island have questioned whether an airport was needed in Kulhudhufushi when an international airport existed just about 20 km from the island. Following campaign pledges, many island communities, including Kulhudhufushi, have been led to believe that they would enjoy economic development arising from domestic airports. According to a participant at the EIA public consultation held with islanders, the locals of Kulhudhufushi were in favour of a domestic airport. But over 90% of those at the meeting raised their hands to show that they preferred the alternative location proposed in the EIA to the one which involved reclaiming the wetland (anonymous, personal communication, 12 June 2018). Despite this, reclamation of the wetland area was started in early 2018. Several similar airport developments with significant reclamation and environmental destruction are under development. These include Noonu Maafaru (Figure 2) and Shaviyani Funadhoo (Save Maldives, 2018).



Figure 2. Noonu Maafaru before and after airport development. (Source: Save Maldives, 2018)

2.2 Reclamation of Emboodhoo Finolhu

Emboodhoo Finolhu, or Emboodhoo lagoon area, is in the north of South Ari Atoll, about 5 km from the capital, Malé. In 2017, the government began reclaiming about a 7 km length of the lagoon, for the development of a vast tourism project (Figure 3). The project, when completed, would include nine artificial islands designed “to meet the leisure-destination desires of the world’s large and rapidly-growing medium to upscale leisure segment” (Mohamed, 2017, para,6). In addition to the impacts of dredging during development, the spatial extent of the development is of concern, as this is a significant alteration of the natural reef systems in the area. The lagoon is a popular diving and picnic area and the EIA for the development identifies that there could be negative impacts on a nearby marine protected area (Save Maldives, 2018).

In a recent change in regulations, EIAs for all tourism-related developments have to be reviewed and approved by the Ministry of Tourism while all other EIAs go through a review process by the Environment Protection Agency. As such, the EIA for this project was reviewed and approved by the Ministry of Tourism. Unlike EIAs submitted to the Environment Protection Agency, tourism-related EIAs are not available for public viewing. In addition to this lack of available information, environmental agencies are gravely concerned that the developer, the Ministry of Tourism is also approving EIAs in the area. There is a clear conflict of interests.



Figure 3. Changes to Emboodhoo lagoon 2016 and 2017 (Source: Google Earth Pro)

2.3 Feydhoo Finolhu

Feydhoo Finolhu is an uninhabited island near Malé which has been leased out for resort development. This case is an example where EIA recommendations to mitigate impacts from development have not been followed. Figure 4 shows a recently shared photo on social media of the ongoing resort development at Feydhoo Finolhu island in Kaafu Atoll. The large light area spanning from the reclamation area is sedimentation from dredging that is being spread across the reef system due to lack of enforcement of mitigation measures. Concerns have been raised at many environmental forums over the low level of monitoring of projects during their construction phases to see if the mitigation measures recommended in the EIAs are followed. In several cases, recommendations have been ignored.



Figure 4. Aerial view of Feydhoo Finolhu resort development area showing sedimentation from dredging (Adam Abdulla, 2018)

Development of resorts, airports and associated changes to the ecosystems are being implemented in the name of progress. These case studies demonstrate that current economic development in the Maldives is going at an accelerated pace without much regard for the environmental impacts or future consequences. Although such development may appear inevitable in the name of progress, it is important that we adopt a more sustainable approach. Since, as we discussed earlier, sacred beliefs are a vital component of many systems of environmental management; in the next section, we will explore some of the academic literature surrounding sustainable development and alternative forms of natural resource management, focusing specifically on how they are informed by sacred beliefs.

3. Literature Review: Towards Alternative Management Approaches

“Progress’s betrayal is being exposed [...] while a few have attained material abundance, resource depletion and environmental degradation now endanger many and threaten the hopes of all to come” (Norgaard, 1994, p.2). Such concern about the need to balance development and the environment remains unchanged even today (Berkes et al., 2011; Hammou, 2015; MacKinnon et al., 2017; Wear, 2016). MacKinnon et al. (2017) call this current Anthropocene geological epoch a crisis of our own making. More recently, others like Moore (2017) argue that the levels of environmental destruction are a product of capitalism and hence the term “Capitalocene” is a more appropriate term. The numerous high profile international meetings such as the Earth Summit, Rio 20+ and several regional meetings, the global commitments and targets among others are evidence of the recognition that our actions are drastically impacting our environment and the urgent need to rethink our use and management practices.

Researchers identify the need for resource managers to recognize and draw upon different cultural paradigms and practices. They also stress the need to seek examples of communities that have long and continuing histories of successful conservation practices (MacKinnon et al., 2017; Turner & Berkes, 2006). According to Turner and Berkes (2006), management systems based on traditional ecological knowledge systems promote resource stewardship and conservation.

There is a growing movement looking at “traditional” and/or “Indigenous” forms of resource management for answers to the conventional management approaches (Berkes, Colding & Folke, 2000; Johannes, 1998; McPherson et al., 2016). As MacKinnon et al. (2017) call it, there is a need to re-indigenise humanity to Mother Earth. Many researchers have pointed out that traditional practices are by no means “primitive”, but are, in fact, good examples of adaptive management (Berkes, Colding & Folke, 2000; Toledo et al., 2003; Wilson & Woodrow,

2009). Adaptive management has been described as a way of learning by doing. It is a process where management actions are taken based on existing knowledge and through an iterative monitoring and feedback mechanism so that management practices are continuously updated and improved. It is an effective approach to resource management because just as the natural world is in flux, so we need to be able to adapt to its changes. Traditional resource management practices based in traditional ecological knowledge, similarly stress the importance of learning through experience and have evolved over time (Berkes & Turner, 2006). As Maldives is currently struggling with the balance of environmental conservation and development, it is important to explore similar indigenous or traditional approaches practiced in the Maldivian communities .

Calling for the re-indigenisation of humanity is not a claim that we need to negate the modern way of life, but it is a call to be more conscious of our co-dependent relationships with the environment. Many scholars argue that as humanity has developed, this has led to a globalised worldview where nature is seen as something separate from us which we can control (Hammou, 2015; Ingold, 2011; Khalid 2010; Moran, 2006; Redfield, 2008). Fonda (2011, p.1) writes that in contrast to European worldviews, “Aboriginal cultures did not have as marked a conceptual separation between sacred and secular, or between culture, language and identity, or between spirituality and the land on or through which it is expressed [...] . These things were and, for many contemporary Aboriginal peoples, are all interrelated in Aboriginal worldviews”. Similar views of integration between religion and all aspects of life are advocated in traditional Islamic teachings (Hammou, 2015; Khalid, 2010).

This lack of the spiritual dimension has been attributed to the inability of efforts of environmental movements to have a significant impact on people in communities (Nasr, 1996). For example, in a study of environmental awareness and behaviours of religious Imams, Hammou (2015) found that while they all had a good understanding of current environmental degradation and the emphasis on environmental stewardship in Islam, for them this knowledge did not translate into pro-environmental behaviours and environmental advocacy.

Despite these findings, Hammou (2015) is optimistic, stating that there is a rediscovery of Islamic beliefs of human connectedness with nature. Evidence of this is the emerging religious-based environmental groups such as the London Islamic Network for Environment, Wisdom for Nature (Hussain, n.d.) and the African Muslim Environmental Network. Muslim faith-based environmental non-government organisations (NGOs) started emerging in the 1990s. The first global Muslim Convention on Sustainable Development was held in 2002 (Schwenke, 2012). In addition, Hammou (2015) documents several instances of Muslim religious leaders supporting and promoting environmental conservation. Schwenke (2012) describe the Green Deen movement proposed by Ibrahim Abdul-Matin in his 2010 book *What Islam teaches about protecting the planet*, a clear sign of an Islamic environmentalism as this book translates

principles into action and relates to the individuals and their lifestyle. The Green Deen movement is based on the 2012 book, *Green deen: What Islam teaches about protecting the planet*, by Ibrahim Abdul-Matin. Deen in Arabic means “a way of life” and Abdul-Matin (2012) shows how Muslims can follow Islamic principles to be more ecofriendly in their everyday lives. Given the degree of development occurring in the Maldives, and given their associated environmental impacts, the Maldives could benefit from a careful analysis of how such worldviews, where humans and nature are integrated and co-dependent, can be reintegrated into the country’s environmental management.

4. Research Method

This paper is based on qualitative research conducted in seven communities of the Maldives with the aim of studying community perceptions of and their interactions with the surrounding reef ecosystems. The seven communities visited are Thakandhoo, Maarandhoo and Makunudhoo islands in the north, Dharavandhoo and Kendhoo in Baa Atoll, and Hulhudhoo and Meedhoo in the south (Addu Atoll). Perceptions of locals regarding reef resources are constructed beliefs that individuals develop through their interactions with their environment; both the natural and the social. These processes are so much a part of everyday life that it would not be possible for an individual simply to pick and point out what aspects of the physical and social environment have contributed to their perceptions about reefs. Therefore, in this study, people’s perceptions and beliefs are interpreted by interacting with them, listening to their stories and views and observing their actions and behaviours.

This inquiry was also ethnographic in nature. Staying with host families in the study communities enabled the first author, who did the field work, to interact with people, participate in their everyday lives, as well as observe their use and management of reef resources. Upon invitation, she also participated in reef-related and community activities, such as cultural celebrations, fishing trips, picnics and barbeques.

Community members with whom the field researcher interacted with include fishermen, elders, community leaders, women and youth from the communities. A broad range of guiding themes relating to reef use and management helped the inquiry. These broad themes include: (i) access to and use of reefs and reef resources; (ii) consumption and distribution of resources in the community; (iii) local knowledge of resource use; (iv) changes to resource availability; and (v) property rights and management rules of reefs and reef resources.

An important belief of the resources as *Rizq* is that these resources are not for the use of one person; they are for everyone. Part of the belief in *Rizq* is that an individual's allocated *Rizq* has been already determined before his creation. The amount and the right time for receiving *Rizq* is also predetermined. Therefore, each individual must be content with that which he or she gets. Hence Riyaz, a fisherman in his thirties from Dharavandhoo, points out that there are no conflicts when one person catches more fish than another. Manik adds to this, that there are those who will catch more and those who will catch less. This is something everyone accepts. Often, those who catch more will give to others after taking what they need. Despite the concept of having one's *Rizq* predetermined, Islam obliges every individual to seek his *Rizq* in a lawful (halal) manner. Seeking worldly gains is also considered a divine and religious matter in Islam. Many elders from the communities pointed out that catching fish for a livelihood is considered a religious obligation similar to praying and fasting. Hussain, a fisherman in his 60s' said "we are always in devotion [to Allah]. Working for a livelihood is an act of devotion. Prayer is an act of devotion. Fasting is an act of devotion."

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It is a common belief that it is not permissible for a person to take from the *Rizq* of another. Many older fishermen believe that Allah will continue to give *Rizq* as long as people are respectful towards others using it and do not take unjustly from another's *Rizq*. Therefore, such beliefs of accepting each individual's *Rizq* lead both to consideration of others' needs and lowered competition among users. This is contrary to the earlier seminal works on fisheries by Gordon (1954) and Scott (1955) that resource users only consider their own gain and do not take into account the impact of their actions on other users. Gordon's belief (1954, p.135) that anyone who waits "for its proper time of use will only find that it has been taken by another" would be alien to the local Maldivian beliefs, as an individual's *Rizq* is pre-appointed.

Beliefs in *Rizq* and acceptance that each individual will be able to get different amounts of a resource extend beyond the subsistence use of reef resources. Such beliefs and practices are also common in economic activity: tuna fishery. Examples can be seen in the catching of bait and first-comer rights to a school of tuna and even in the sharing of information on where fishing is good. Unfortunately, with the slow eroding of religious values and principles, these kinds of behaviour and norms are fading. Mohamed (2012) attribute a more globalized education to the changing worldviews and religious values of individuals in the community.

Maldivians believe the sea and its resources to be a common-pool resource (Mohamed, 2012). A frequent issue identified in the common literature is that of free-riders. According to this literature, free-riders who do not contribute to looking after a resource but continue to use it,

pose a problem due to the inability to exclude them from using the resources (Layzer, 2012; Ostrom et al., 1999). Traditional Maldivian beliefs that all resources are a *Rizq*, provision from God, and that it should be used with care without taking from that provided for others is a moral reasoning that can help alleviate such free-rider problems. Beliefs in *Rizq* are also linked with stewardship behaviours promoted in traditional management practices.

5.2 Humans as Stewards on Earth

We found that in traditional Maldivian communities, the concept of *Rizq* is also intricately connected with the idea of humans as caretakers or stewards of the earth. Ahmed, a man working in the island court, described the role of our actions in maintaining the *Rizq* by saying, “We need to take care of our environment and live in the way God has guided us. If we don’t we will lose the *Rizq*”. The Quran states humans were placed on earth as vice-regents and thus have the role of trustee and custodians of the earth (Khalid 2002; Faruqi 2007). Each generation has a responsibility towards Creation and must leave the earth in good condition for the generations to come. Khalid (2001) explains that since humans have been privileged with reasoning, they are ultimately accountable for their actions. Thus, humans have a responsibility to act as stewards of their *Rizq*.

During the fieldwork, community members described this sense of responsibility and that their actions determined their success. Many elder fishermen talked about how the current fishery practices caused the unavailability of fish. The fieldwork coincided with scarcity in tuna fishing. Large fishing vessels were returning almost empty-handed after a fishing trip. Fishermen from the south especially said fishing had not been good for a long time. They believed that it was the unsustainable bait fishing practices that were the cause. Fishermen said they could see fish through the fish finders in the vessels, but finding bait was the problem. The common practice of collecting bait using very high powered lights to attract the baitfish to the surface where fishermen then use nets to get them essentially means that free-riding behaviour is now widespread. In the southern Atoll of Addu, fishermen described how they were not able to catch tuna due to lack of bait. All fishermen agreed the lack of bait was due to the methods they used. Hussain, an elderly fisherman, talked about the lack of baitfish and said it is due to the unsustainable way the Addu fisherman catch more bait than they need.

It’s large boats. They will light [to attract bait] so much that there is no bait to take the next day. One of those boats will take bait to cover this whole area. That’s what’s important. [The bait] will not grow and mature. Even though it’s the marvel of the Creator, there are certain principles and reasons. By the will of the Creator they are created, they grow and reproduce young. So if we take all the young fish also bait will be depleted.

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Similarly, a fisherman from Makunudhoo talked about the poor fishing and attributed people’s actions to the lack of fish.

We cannot say what is happening with natural processes. Allah will give the Rizq. [We] servants can only work [for the Rizq]. From what we can see and our experiences we are catching too much and also destroying the place and causing the fish to decline. That is what I suspect. Now there is the issue of using lights [to catch bait] too.

A retired fisherman reiterated this saying, “Now people are bad. That’s why the bounty and Rizq is not here.” He further went on to explain that if we were dutiful and looked after the resources as prescribed by Allah we would not have such problems. He quoted a verse of the Quran and related its meaning, saying, “Nothing can happen if people are devoted to Allah. Only Allah can cause such calamities”.

Beliefs in stewardship towards nature can be found in many other indigenous cultures too. Jostad et al. (1996, p.574) describe similar views by Native American tribes. “By assuming a respectful and humble place in the [Native American land ethic] system, respecting the system by using and not abusing it, by observing ritual and ceremony and giving thanks, the individual makes his actions benefit the individual, the tribe, and nature”. In the example given by Jostad et al. (1996) the emphasis is given that it is individual behaviours that bring community benefit. These individual behaviours are guided by moral norms which ensure harmony both with the natural and social worlds. Such an emphasis on community interest having precedence over individual interest is also given in environmental management under traditional Islamic Shariah (Khalid, 2010). “Islamic environmentalism begins with the self and then radiates to the home, the school, the mosque and the wider community” (Khalid, 2010, p.16).

5.3 Belief in Sentient Beings

We found that the elders in Maldivian communities also shared a spiritual belief in the sentience of fish. Many elders are of the view that the fish are creatures just like us humans. They have been created by God just like us humans. The fish would be conscious and understanding of our behaviours towards them. Therefore, they have to be treated with respect and make sure no unnecessary harm is done to them. Elders say that earlier people caught fish in ways that did not harm the fish. Mufeed and Idrees from Kendhoo express strong emotions over the harming of scads (dense schools of small fish found in the lagoon of islands). Just like us the fish would also feel the pain when they are harmed.

The younger generation [harms the scads]. Earlier [people] will not do something like that. ... If it is getting beaten it will not come there. They will know to some extent. [They] will not come to where [they] are being disturbed.

މުފީދު ދަންނަވާ ގޮތެއް ނެތް. ފުރުޞަތު ހުޅުވައި ދެނެގަތުމަށް ބޭނުންވާ ފަރާތްތަކުގެ ސަބަބުން ފިޝުތަކުގެ ވަށައިގެން ދަތުރުކުރަމުން ދަނީ ބަލައިފި ފަދަ ގޮތެއްގައި. ފިޝުތަކުގެ ވަށައިގެން ދަތުރުކުރަމުން ދަނީ ބަލައިފި ފަދަ ގޮތެއްގައި. ފިޝުތަކުގެ ވަށައިގެން ދަތުރުކުރަމުން ދަނީ ބަލައިފި ފަދަ ގޮތެއްގައި. ފިޝުތަކުގެ ވަށައިގެން ދަތުރުކުރަމުން ދަނީ ބަލައިފި ފަދަ ގޮތެއްގައި. ފިޝުތަކުގެ ވަށައިގެން ދަތުރުކުރަމުން ދަނީ ބަލައިފި ފަދަ ގޮތެއްގައި. ފިޝުތަކުގެ ވަށައިގެން ދަތުރުކުރަމުން ދަނީ ބަލައިފި ފަދަ ގޮތެއްގައި.

Communities who view this inter-relatedness between humans and animals would not needlessly harm the animals. They cannot justify taking more than needed, for such taking always involves a sacrifice on the part of the animal. These values are deeply rooted in traditional Maldivian communities, and are linked to their religious beliefs. For example, any unnecessary pain even to a sparrow, let alone anything greater, is a sin, for which the offender will be questioned by God on the Day of Judgement (Haq, 2003). The accountability of humans for their actions towards the surrounding environment is linked to the belief in the role of humans as vicegerents on earth.

Many traditional hunter societies also tend to view nature in ways where the human-animal relationship is seen in a spiritual manner and creatures have personhood (Berkes, 1998; Gombay, 2010). Hallowell (2002) describes that the Ojibwe people interact with all persons, including the other-than-human, through the principle of mutual obligation. As such, when hunting the animals, humans are expected to treat the animals in the proper manner. Islamic halal slaughter, as practised in Maldivian islands, also conveys such respectfulness.

According to Losey (2010), native people of the Northwest Coast of North America believed fish to be sentient beings who, if treated improperly, could refuse to return to be caught by humans. The intentional dismantling of durable fishing structures practised after the fishing season, described by Losey (2010), was among measures to ensure proper treatment and return of the fish. Similarly, Maldivians also have several fishing practices, such as gear restrictions, access restrictions and sanctions, which discourage the harming of scads. One such practice is the prohibition of using nets to catch scads. Almost all elders in the communities were horrified at the thought of using nets to catch scads. Nizar, an elder from Hulhudhoo, exclaimed when asked about use of nets, “Nets are not used. *La ilaaha!*” *La ilaaha* literally means no God and comes from the beginning of the Muslim Shahaadhaath “there is no God except Allah”. In the Maldives many people shorten this and say “*la ilaaha!*” as a way of exclaiming surprise or that something is unheard of. *La ilaaha* almost means ungodly. Thus, this exclamation denotes the horrific nature of using nets to catch scad.

Fazna and Shaheedha, two women who go to fish scads, said that the men, especially fishermen, get very angry when the youngsters use nets, spears, multiple hooks and quick sharp pulls using large sized hooks for catching scads. Fishermen explained that often, when these things are used, the fish is not caught but gets away injured. Eventually the whole school of fish would go away. The younger people claimed that the men were more worried about the fishing going away than about caring for the fish. While these practices may be linked to conserving and using fish, the elders also described deep feelings for the fish. They said it is not right to harm the fish, as they are also Allah’s creatures. Participants from Dharavandhoo said that the person who does *fanditha* (a type of dark magic with elements of the spiritual) to bring in the scads now refuses to do it, as people nowadays harm the fish. The person who taught him *fanditha* had asked him not to do things that harm the fish. He sheds tears when he sees youngsters harming the fish.

Literature on sentient beings describes reciprocal relationships where the animal or fish gifts itself to the hunter or fisherman (Nadasdy, 2007; Losey, 2010). The accepting of such gifts in-debts humans, which requires that they adopt certain practices and rituals of respect in their ways of hunting and disposing of animal remains (Nadasdy, 2007). Although elders of Maldivian communities view fish as sentient beings endowed with emotions, the idea of the fish gifting themselves to the fishermen is not part of this worldview. This made sense in light of the Islamic beliefs of the community such as all that is in the heavens and the earth belongs to God and it is by God’s will that all things happen. Therefore, thinking of the fish as such beings would be part of the respect for the fish, and showing respect for God.

However, ideas of gifting and reciprocity can also be seen in Maldivian folk stories such as how the skipjack tuna came into being. In the story the skipjack tuna is fashioned out of dough by a princess and it comes to life as she lets it go into the sea. She sends it away to go and dwell in the sea and multiply in numbers and she asks the fish to let her people catch some of its children for food. This request is granted by the tuna on certain conditions that the people should fulfil. These are mostly conditions on the gear to be used, such as the pole and line, for catching the tuna. This is an almost forgotten story, but it supports the existence of a belief in a relationship of reciprocal exchange between humans and the tuna. As Nadasdy (2007) points out, whether to treat this as a metaphorical construct or as valid depends on the worldview of the individual. What is interesting in relation to this story is that even today tuna is caught by this traditional pole and line method described in the story.

5.4 Re-integrating the Sacred

Natural resource use and management of earlier generations show that interactions were governed by their traditional and social values and religious beliefs. Nature, culture and the spiritual are not sharply distinguished but “constitute a single system of entities not entirely separable from one another” (Redfield, 2008, p.204). The predominant beliefs in Maldivian communities were Islamic. It is worrying that such integration of the sacred in the secular is disappearing in communities.

In the modern worldview, spirituality and religious beliefs are often viewed to be incompatible with the conception of “secular, rational, political ‘man’” (Fonda, 2011, p.3). This separation was quite apparent in discussions with community members where the idea of what is morally good is very similar in everyone’s mind but the application of spiritual beliefs is not visible in practice, in situations such as resource management, which now exist in the secular realm.

The separation of the sacred and the secular is evident in many aspects of Maldivian life. Whether in resource management, the economy or the political arena, religion is viewed as something that needs to be left within the walls of the mosque or within people’s private lives. An example of this separation is the widely critical view of many on the formation of a religiously based political party in the Maldives, the opinion being that the role of religious people should be to address religious matters rather than political ones. The idea of religion as having separate functions and purposes than the political sphere was institutionalised in globalised liberal democracies, and through colonization, spread to societies where such demarcations did not exist (Fitzgerald, 2007 in Fonda, 2011). Khalid (2010) identifies such changes in almost all Muslim states today. As Jostad et al. (1994, p.17) put it; “Civil administration has separated

itself from the body of the people who are coming to be known as ‘the religious authorities’ i.e. a clergy, which is not recognised in Islam”. According to Khalid (2010), these changes are a result of the difficulty in applying traditional beliefs in a modern global world, where even Muslim nations need to conform to modern ways of exchange and trade with other nations. Maldivian society today, with its focus on economic development, exists in such relationships with the global world.

Across the world, natural resource managers have started to recognize the need for more holistic management practices and are showing interest in traditional management systems where nature, culture and the spiritual are integrated. Berkes (2012, p.31) interprets this interest as “a search for alternatives in human-environment relationships and in resource stewardship”. Perhaps, it is time that resource managers in the Maldives also focused on re-integrating the traditional worldview or beliefs into managing reef resources, in order to preserve the traditions and the reefs for posterity. This does not mean halting development and reverting to traditional ways of life, but instead enhancing development through cultural and traditional ways of knowing about and viewing the environment, in order to improve living standards sustainably. This means re-discovering our co-dependence with nature and that humans are intricately a part of it.

Re-integrating the sacred needs to start at the individual level so that individuals rediscover and live with a spiritual connection to nature (Suzuki & McConnell, 1997). It is individuals that form the collective and hence, individual values can translate to collective action. The promotion of a more faith-based environmentalism among individuals is an ideal avenue for engaging religious leaders, scholars and civil societies in the Maldives. Perhaps Islamic environmental NGOs similar to those described by Hammou (2015) can be an alternative model for environmental advocacy in the form of a Green Deen movement.

As Khalid (2010, p.16) states “Islamic environmentalism begins with the self and then radiates to the home, the school, the mosque and the wider community”. Such individual action can lead to collective voices that consider development more holistically. Much of the large scale negative environmental destruction we see today is occurring in community level projects. Yet communities, seduced by promised economic development, largely remain silent. A few environmental enthusiasts continue to voice their opposition to the destruction of the environment that often accompanies such development. They predict social, economic and habitat losses will far outweigh the economic gains that are promised. For example, one of the largest domestic airports that was built in the island of Baa Dharavandhoo, after reclamation of the lagoon, was able to provide employment for only a few of the island’s inhabitants (Ibrahim Naeem, personal communication, 19th June 2018).

There is need for a collective community voice to call against the environmental destruction, to call for sustainable development which takes into account our dependence and co-existence with nature. Perhaps it is due to the lack of the spiritual dimension in their environmental efforts as suggested by Nasr (1996) that communities of people have not been able to create a more harmonious community voice. Perhaps it is the right time to look for alternatives in the sacred dimension.

6. Conclusion

Today, many Maldivians believe that the rapid development of infrastructure such as domestic airports, resorts and city hotels is progress. But this construction is occurring at the expense of alarming environmental destruction to the marine environment. Such environmental impacts from development are a global concern, and many resource managers are searching for alternatives to current management approaches and examples of resilient socio-ecological systems from traditional and indigenous cultures. It is seen from this research that traditional Maldivian communities also hold resource use and management practices that were ingrained in their traditional and social values and religious beliefs. These include: Islamic beliefs that all of creation belong to Allah and that the role of humans is that of steward; and the concept of *Rizq*, that all sustenance comes from Allah and that the *Rizq* of an individual is predetermined. Behaviours such as using resources without wasting, sharing resources in excess of need, and being considerate of other resource users are all individual behaviours that are developed through these moral beliefs. Ignoring such beliefs and continuing to exploit resources without consideration or respect, may be perilous to all humankind. These beliefs are knowledge systems developed through thousands of years of interacting with ecosystems. In the Maldivian traditional belief system, the non-human elements of creation are sentient and similar respect needs to be given to all creations on earth.

In this paper, we have discussed some elements of how these traditional belief systems have eroded. Modern society sees natural resource management as part of the secular regime where religion and the sacred have no part in economic development. Perhaps it is time for a re-integration of the sacred into current resource management practices. In this aspect, there is an important role for religious leaders, scholars and civil groups to bring back the sacred. Movements like the Green Deen may be an innovative platform to develop these beliefs and help translate them into individual action. It is important to explore further such alternative approaches to see if they can bring about positive changes to our current resource use and management practices. The famous Muslim poet and scholar, Rumi, advised us, "Wherever you stand, be the soul of that place".

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