

## Reviving an Islamic Approach for Environmental Conservation in Indonesia

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### Abstract

In this paper, the authors argue that while state-sponsored efforts to preserve Indonesia's natural resources have been needed, their effectiveness has been limited due to the paucity of available arable land and the frequent conflicts conservation policies have generated among local populations. Rather than a top-down structural approach, they argue, what is needed is an innovative approach that includes education at the grassroots, which in Indonesia will combine Islamic principles of environmental protection with traditional methods of conservation. After a section presenting an Islamic theology of creation care and then highlighting some projects in the Muslim world, the spotlight is turned on Indonesia, where a number of initiatives involve the cooperation of religious leaders, eco-friendly pesantren (religious boarding schools), international NGOs, and government policy at the national and regional levels.

### Keywords

Islam, Qur'an, environment, Indonesia, conservation, education

### Introduction

It is widely accepted that a natural balance between the natural environment, production and consumption, sustains the chain of life on earth. For this reason, a balance between the protection of natural resources and

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sustainable development is required to ensure that these resources may continue to be used by future generations.<sup>2</sup> This paper reviews several current initiatives relating to the conservation movement in the Muslim world, and especially in Indonesia. Here, we focus on the attempts being made to render or return human and non-human aspects of life today to a sustainable balance. We note some specific responses from Islamic religious thinkers and conservationists using Islamic approaches to protect the environment and examples of how Muslims, particularly in Indonesia, are contributing successfully to this effort through education, legal frameworks and conservation practice. These could be successfully applied across Southeast Asia and wherever Qur'anic teachings are practiced.

Efforts to protect or preserve Indonesia's natural environment are critically important and will require a strong and innovative approach. Many conventional attempts in the past that have corresponded to government policies have, in general, followed a structural approach. This approach often represents a "top-down" process that is not socially inclusive. These policies may give the impression that local populations do not have the capacity to constructively engage in the process, particularly when the establishment of conservation areas requires the alteration of traditional rights ("*hak hak ulayat*" or "*tanah adat*") that have been locally observed for generations. In Indonesia, conflict over natural resource use often arises due to conservation areas being unilaterally established by the government in land that local communities have already been using, or over which their ownership has been claimed, albeit often without official government approval or formal registration. When the government extends permission for a conservation area or a land use concession and a boundary dispute subsequently arises, conflicts may escalate that result in restriction of resource use rights, expulsion of the local population, or even bloodshed.<sup>3</sup>

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"Integrating religion within conservation: Islamic beliefs and Sumatran forest management." Much of this article was translated from Bahasa Indonesia into English, with some revision, by Anna M. Gade.

<sup>2</sup> Brundland Report's of World Commission on Environment and Development (WCED) defines "sustainable development" to be development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987, *Our Common Future*. Available online at: <http://upload.wikimedia.org/wikisource/en/d/d7/Our-common-future.pdf> [accessed February 10, 2012].

<sup>3</sup> A recent case was reported in the village of Mesuji, Lampung, Sumatra, in which conflict arose when the landowner, in accordance with a government permit attempted to widen his field for the cultivation of palm oil and the local community considered the land was theirs according to customary rights, and the palm oil company claimed that it was their right since they had obtained a due license from the government. See Handadari, Transtoto, "Siapa Merambah Lahan?" *KOMPAS*, December 20, 2011, 6.

Available arable land in Indonesia has become increasingly scarce; competition over land use has become even more intense because most productive areas are also inhabited. Therefore, structural policies alone are not enough to address the problem, and a more comprehensive community-based approach should lead to improved support at the grassroots level. A related dilemma that often arises with the application of government policy is that resources and influence are so substantial that they tend to overwhelm the very people who require economic support. Consequently, a sense of injustice may arise because local communities living in or around conservation areas do not receive adequate benefits needed to achieve sustainable livelihoods.

The mission of the International Union for World Conservation (IUCN), which gives recommendations for conservation goals along conventional lines (i.e. “protect, research, and use”) requires greater support at the grassroots level in order for its policies to incorporate the needs of local communities. In line with this, conservation efforts must do more to ensure that their strategies are economically viable, socially acceptable, and spiritually appropriate for local communities. The global environmental crisis requires the cooperation of humanity worldwide. Highlighting specific programs in Indonesia, this article outlines specific programs carried out by global Muslims on an Islamic religious basis in the areas of education, law, and community engagement to address a range of current environmental challenges.

### **Islamic Approaches to Global Environmental Challenges**

The Muslim world has the potential to positively contribute to environmental protection by way of its beliefs and doctrine. Two out of three Muslims worldwide live in South and Southeast Asia, and Indonesia has the world's largest Muslim population. In Southeast Asia and in Indonesia particularly, Islam has united diverse civilizations that have existed since ancient times. Its cultural assimilation is manifested through everyday activities such as traditional holidays, festivals and norms of dress. Further, the observance of Islamic ritual activities and required worship (the “five pillars of Islam”) are based on the Shafi'ite jurisprudential system, which is the most widespread in the country, extending out even to the most remote areas.

This legal tradition also influences many Indonesian cultural taboos that prohibit certain behavior, such as the the consumption of primates and animals that have claws and fangs—especially amongst Muslim coastal

populations. Muslims are also forbidden to eat animals that live in two elements simultaneously such as many species of reptiles and amphibians. This prohibition, propagated by Shaf'ite jurisprudence,<sup>4</sup> prevents Muslim communities from hunting these animals in the wild, thereby offering them a degree of protection. In many places this has had a positive impact on the preservation of wildlife, such as orangutans, as well as many species of primates found in areas with a predominantly Muslim populations such as Kalimantan (Borneo), Sumatra and Sulawesi. As Mangunjaya (2005) also details, an increase in the population of these animals has been correlated to the restrictive consumption habits of Muslim communities in the outlying coastal areas, especially in Kalimantan.<sup>5</sup>

Fazlun Khalid, a Muslim scholar and Founder of the Islamic Foundation for Ecology and Environmental Science (IFEES), has long expounded the importance of making environmental conservation central to Muslim awareness. He believes that environmental teaching is inherent to Islam (Khalid 1992; 2002). Many other scholars have held a similar view: Seyyed Husain Nasr (2003), Yusuf Qardhawi (2006), Mustafa Abu Sway (2005), Ziauddin Sardar (1985), Mawil Izzi Deen (1992; 1997), and Alie Yafie (2006). To summarize, they share the perspective that Islam provides a comprehensive system for teaching the fundamental aspects of environmental care.

Islam broadens environmental awareness by connecting religion to other aspects of everyday life. Thus it may be said to be a direct a holistic environmental ethic like that of non-Muslim and non-religious environmentalist leaders of today (Bakader *et al.* 1994; Izzi-Deen 1990). The scripture of the Qur'an guides discussions on the environment as well as techniques to put these teachings into practice. For example, it mentions as many as four hundred eighty-five words with meanings directly related to *al-ard*, the Arabic word for "earth" (Izzi-Deen 1990). In addition, Khalid (1999) finds at least two hundred and sixty-one verses in the Qur'an that discuss the creation of God using terms based on Arabic meanings of *kh-l-q*, which relates to His creation. An example of one of these verses is the following:

And We created not the heaven and the earth and all that is between them in vain (Q. 38: 27).

<sup>4</sup> See Imam Syafii. 2004. The chapter, "Perincian Makanan yang Halal dan Haram," Kitab al Umm, in *Ringkasan Kitab Al Umm* (translation of: *Mukhtasyar kitab al Umm fil al Umm fi al fiqhi*. Imam Syafii Abu Abdullah Muhammad bin Idris). Jakarta: Pustaka Azzam, 773.

<sup>5</sup> See Mangunjaya. 2005. *Konservasi Alam Dalam Islam* (Yayasan Obor Indonesia: Jakarta).

In 6 An'am 38, the Qur'an states that all earthly creatures are part of the "ummat" (community) which humanity shares:

There is not an animal in the earth, nor a flying creature on two wings, but they are peoples like unto you. We have neglected nothing in the Book (of Our decrees). Then unto their Lord they will be gathered (Q. 6 : 38).

The commands of the Qur'an above put forward a model for living which is also related in many hadiths (reports) of the sayings and actions of the Prophet Muhammad that connect the overarching ideas of justice and equality with the command to humanity not to "corrupt" or "oppress" the creation of God (Q. 16: 90; 26 : 151-152). Moreover, some Muslim ethicists and legal thinkers have concluded that Islam puts forward conservation of the environment as one of the highest goals of Islamic law (*shari'ah*). This may be recognized through the fundamental legal and ethical theory known as the "five necessities" (*al dharūryyat alkhamis*) that were put forward by Syātib in book, *al-Muwāffaqāt*, and which are guiding criteria of for the "aims of the law" (*al-maqāshid al-shar'iyyah*). They state the necessity for all legal rulings to guard and protect five aspects of human flourishing, namely: religion, life, heritage, property and thought. These are all criteria broadly dependent on the conservation of the environment.<sup>6</sup>

The analysis above cannot be considered exaggeratory when it is recognized that humanity is completely dependent upon nature for all of its activities. Without a healthy environment, humans lose the essence of life. Even more profoundly, humanity and nature have been interconnected since primordial time.<sup>7</sup> The environmental crisis that surrounds humanity is growing ever more acute, with increasing numbers of natural disasters worldwide caused largely by human action: pollution of the oceans and waterways, the air and the atmosphere, deforestation and alterations of the natural environment—all which contribute to global warming and climate change. These unsustainable practices cannot be addressed effectively by any one group of people or any single government or nation. A concerted global effort is now required.

<sup>6</sup> See Mudofir. 2009. *Argumen Konservasi Lingkungan Sebagai Tujuan Tertinggi Syariah*. Doctoral dissertation, Sekolah Pasca Sarjana Universitas Islam Negeri (UIN). Jakarta: Syarif Hidayatullah.

<sup>7</sup> In S. Keller and E.O Wilson (1993), a hypothesis is formulated for this argument called, "biophilia: the human bond to nature." Jalaluddin Rumi (1207-1273), in a similar fashion, stated that humanity needs nature, since the entire world in reality is alive. Also see L. Clarke. 2003. *The Universe Alive: Nature in the Masnawi of Jalal al Din Rumi*, 36.

Many kinds of collective approaches are already in effect, including routine meetings to address the climate crisis, carried out annually by the Conference of Parties (COP) of the United Nation Framework for Climate Change Convention (UNFCCC). The UNFCCC may be said to be the only convention of the United Nations that mandates an annual discussion. Every nation that is a signatory to the convention, reports annually on the development of plans for the mitigation of and adaptation to climate change. Let us now turn to Islam, a religion with one of the largest number of adherents globally, to see how teachings about Qur'anic and Islamic environmental ethics are being shared and implemented around the world.

### Islamic Education and an Environmental Message

The teachings of Islam form a clear argument for environmental defense conveying coherent principles for expressing “Islamic environmentalism.” The question then becomes, what is a point of entrance by which such teachings can easily and comprehensively be understood, both contextually and textually? The increasing pressure placed on the environment represents a contemporary issue that first appeared when the world's human population increased dramatically, and the development of an economic system based on exploitation of natural resources was intensified. The Muslim community (*ummat Islam*) may offer a response to this crisis according to the guidance provided by the Qur'an, which Muslims are required to follow. In order for this to occur, Muslims must be able to both understand the text of the Qur'an as well as to apply its teachings to the current physical and ecological reality that they witness daily.

One of the present authors (Mangunjaya), working in collaboration with Fazlun Khalid, has led numerous workshops aimed at advancing religious understanding of environmental themes found within the text of the Qur'an. For example, Mangunjaya led various workshops in Indonesia including Aceh, Padang, Mandailing Natal, North Sumatra, Bogor, Bandung, Cirebon, West Java and Waigeo Island, Papua. During these workshops hundreds of participants including *ulama* (religious scholars), *ustaz* (Islamic teachers), *imam* (religious leaders) and *khatib* (preachers) from all over Indonesia read the Qur'an repeatedly together and sincerely to adjudicate its ecological teachings.<sup>8</sup> In addition and with authorization from Fazlun Khalid, Mangunjaya also presented this methodology and approach to

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<sup>8</sup>) Fazlun Khalid. 1999. *Qur'an Creation and Conservation*. IFEES. Birmingham.

hundreds more religious scholars, not only in Indonesia (Java and North Sumatra) but also as far as Kano in Nigeria.

Following these workshops the following themes for Qur'anic perspectives on the environment were developed:<sup>9</sup>

1. *Tawhid*—the principle of “Divine Unity” and related discussions on the nature of the Creator, His creation and the importance of its conservation.
2. *Khalq*—how the Qur'an deals with matters relating to the environment and conservation through verses relating to “*khalq*” (“creation”).
3. *Mizan*—the principle of “balance,” and how the earth remaining in a stable balance is a step toward conserving the environment.
4. *Ihsan*—the knowledge that Allah created humankind in a state of “goodness” or “beauty,” and understanding our place in *fitra* (the Qur'anic terms for an original state of nature).
5. *Fasad*—knowing the capacity of human species for destructive behavior (“corruption,” or *fasad*), which leads to the destruction to the environment.
6. *Khalifa*—knowing our human responsibilities as guardians of the environment, as expounded in the Qur'an, including our treatment of other sentient beings.

At the most basic level, Mangunjaya and Khalid have aimed to convey in their teachings the commands and goals stated in the verses of the Qur'an, which pious Muslims read and study every day. Their goal is to enhance and enrich discussions on what may be intended by the verses, in terms of environmental themes and with actual examples found in present day realities. The essential point in offering these exercises and workshops is to harness the motivation to change the behavior among Muslims to better to guard the environment.

### The Challenge of Protecting the Environment in Indonesia

Islam is the faith of 1.34 billion people representing 20% of the global population and is a state religion in twenty-five countries.<sup>10</sup> It is found largely in South Asia (including Pakistan, India and Bangladesh) and Southeast Asia (including Indonesia, Malaysia and Brunei Darussalam), areas that have large fertile areas and which possesses a great inheritance of natural resources. The extent of the richness of biological diversity in Indonesia, for

<sup>9</sup> All quotes from Fazlun Khalid and Ali al-Tsani are taken from *Teacher Guide Book for Islamic Environmental Education*. IFEES: Birmingham.

<sup>10</sup> O'Brien, J. and Palmer, M. 2007. *The Atlas of Religion: Mapping Contemporary Challenges and Beliefs*. London: Earthscan.

example, is so great that it is called one of the earth's regions of "megadiversity." Many regions in Indonesia are also considered geographical "hotspot" zones, areas, "characterized both by exceptional levels of plant endemism and by serious levels of habitat loss."<sup>11</sup> There are two "hotspot" regions in Indonesia: Sundaland, which consists of the large islands of Sumatra, Java and Kalimantan; and, Wallacea which comprises Sulawesi and Lesser Sunda Islands, as well as Maluku (the Maluccas). These regions, in addition to having high levels of endemism, are also increasingly threatened as a result of large-scale land conversion and the loss of habitat, especially under pressures of economic priorities focused on using land for agriculture and farming.

Indonesia has a vital role to play globally in protecting the earth's balance as its forests represent massive carbon stocks, known as the "lungs of the earth." Forty percent of the excess of carbon dioxide (CO<sub>2</sub>) that now piles up in our atmosphere results from deforestation that was already carried out in places like Indonesia.<sup>12</sup> Indonesia now has approximately 110,046.2 hectares of forest remaining. This includes protected areas whose preservation is guarded so that it may make contribute to the supply of oxygen and the regulation of the climate for all citizens of the earth.

The government of Indonesia has made a noteworthy commitment to protect its natural resources as part of its national goal to reduce greenhouse gas emissions by 26% by 2026. This is evidenced in the moratorium on logging concessions. Although this proposed moratorium has met with controversy<sup>13</sup> it promises great conservation benefits considering the high levels of deforestation that occur on a massive scale in Indonesia today. In the year 2006 alone 1,174,068 hectares,<sup>14</sup> an area sixteen times the size of the nation of Singapore, was deforested. This is equivalent to one football field per day.

Many of the environmental cases from Indonesia have a checkered record because of poorly coordinated policy and implementation that continuously becomes tangled up in problems of land administration and

<sup>11</sup> See: Biodiversity Hotspot: Hotspot Defined. Available online at: [http://www.biodiversity-hotspots.org/xp/hotspots/hotspotsscience/Pages/hotspots\\_defined.aspx](http://www.biodiversity-hotspots.org/xp/hotspots/hotspotsscience/Pages/hotspots_defined.aspx)

<sup>12</sup> See Gore, Albert. 2009. *Our Choice: A Plan to Solve the Climate Crisis*. New York: Rodale Books.

<sup>13</sup> See "Indonesia's Ambitious Forest Moratorium Moves Forward." Available online, <http://www.wri.org/stories/2011/06/indonesias-ambitious-forest-moratorium-moves-forward> [accessed January 10, 2012].

<sup>14</sup> These figures are from 2006, from the forest statistics of the Badan Planologi Kehutanan Baplan. See the website, [www.dephut.go.id](http://www.dephut.go.id), also available in Pdf at: [http://www.dephut.go.id/files/statog\\_planologikehutanan.pdf](http://www.dephut.go.id/files/statog_planologikehutanan.pdf) [accessed January 10, 2012].



competing conservation priorities. As a country whose inhabitants accept democracy, and compared with other nations, sustainable development in Indonesia is not as advanced as it could be, and faces weighty challenges. Writing from the environmental perspective, Jared Diamond has even predicted that this nation is one that will experience collapse because of the environmental situation and the overpopulation that it experiences.<sup>15</sup>

Efforts to manage environmental problems have received attention from the Indonesian government in stages, in order to enforce regulation connected with the use of natural resources. For example, in 2009, there was passage of “*Undang-undang Perlindungan dan Pengelolaan Lingkungan Hidup*” (Laws for the Protection and Management of the Environment), also known as UU No 32/200. These statutes replaced the previous “*UU Pengelolaan Lingkungan Hidup*” (“Laws for Management of the Environment,” UU No 23/97). The reason for the new legislation was that the prior regulation, under UU PLH (No 23/97), was viewed as unsatisfactory twelve years after its implementation due to instances of widespread environmental degradation and ever-increasing environmental pollution.

The new law (UU No 32/200 in 2009) was strong enough to require that an “Environmental Impact Assessment” (AMDAL) be made in order to obtain “Environmental Permission” by a licensing agency as a prerequisite to establishing a commercial company. If the requirements for this “Environmental Permission” are not met, it is revoked, and the business is to be duly terminated.<sup>16</sup> This regulation also has influence across other sectors as well, including regional government, as well as the new necessity to obtain capital for the sake of environmental protection and concern.<sup>17</sup>

However, the regulatory approach will not be enough if the legal requirements and constraints are not based on sustainable environmental activities, including raising awareness in the business and private sectors and society at large. Because of this, promoting environmental ethics based on faith (religion) is critical to progress, because this effort forms a basis with which to change attitudes and ultimately behaviour within society. Therefore, the challenge that must be addressed stems not only from the perspective of national and local legislation but also in the sustainable application of the regulations on the ground.

<sup>15</sup> See Diamond, Jared. 2011. *Collapse: How Societies to Choose to Fail or to Survive*. New York: Penguin Books.

<sup>16</sup> Section 40, point 2 (UU 32/2009) regarding permits.

<sup>17</sup> Section 45 points 1 and 2 (UU 32/2009) regarding “Anggaran berbasis lingkungan hidup.”

## Climate Change

Climate change has become a global concern, not only for those in Indonesia. Moreover, representatives of every religion have proclaimed their concern for the increasingly destructive activities by humans, which continue unmitigated. In the year 2009, representatives from various religions worldwide confirmed their commitment to undertake efforts within their own institutions and communities to address climate change. The document produced was a collective declaration to develop an “action plan” with respect to climate change.<sup>18</sup> The Muslim world developed the “Seven Year Action Plan for Climate Change Actions” (known as M7YAP in Indonesia) that was initiated by a focus group of experts who met for discussions in Kuwait, and then completed and declared in Istanbul in July 2009.<sup>19</sup> In April 2010, in Bogor, Indonesia, Muslims convened the First International Conference on Muslim Action on Climate Change and reached an agreement at the conference which yielded, among others results, the following recommendations that were sent to the Organization of Islamic Conference and all country members for follow-up and implementation:<sup>20</sup>

- To promote the re-integration of science and Islamic teaching into both policy-making and education systems for sustainable development across the Muslim World and the formation of the Organization of Islamic Conference to take a leading role in protecting Muslim countries from climate change impacts through promotion of coherent climate change policy, environmentally benign technology and corporate practices and adoption of a lifestyle in accordance with Islamic values.
- To promote and conduct community and grassroots actions to respond to climate change with mitigation and adaptation efforts and to develop various hubs of cooperation for exchange of knowledge and best practices. This would focus on rehabilitation and revitalization of local natural resources that increases resilience; quality of life and the development of mosques as community and education centers to disseminate the sustainability message should be prioritized.

<sup>18</sup> See ARC & UNDP 2009. *Many Heavens One Planet: Faith Commitments to Protect the Living Planet*. ARC: Bath, 175. Lihat juga available online: [www.Arcworld.org](http://www.Arcworld.org) or [religionandconservation.org](http://religionandconservation.org).

<sup>19</sup> The complete M7YAP documents are available at: [http://en.wikipedia.org/wiki/Muslim\\_Seven\\_Year\\_Action\\_Plan\\_on\\_Climate\\_Change](http://en.wikipedia.org/wiki/Muslim_Seven_Year_Action_Plan_on_Climate_Change)

<sup>20</sup> “Report on First Muslim Conference on Climate Change Action. Bogor Indonesia.” April 9–10, 2010. Bogor, near the city of Jakarta on Java, was also declared to be a “Green City” at this time.

- To recognize and celebrate successful efforts from governmental policies to sustainable corporate practices to community actions at all levels, to encourage learning and exchange of knowledge and best practice across the Muslim World e.g. Award programs and *eco-pesantren* (*Environmental Islamic Boarding School*) *jamborees*, to promote pro-environmental ethics and practices.
- To train religious leaders about climate change issues and best education practices using locally relevant systems, e.g. the pondok *pesantren* system<sup>21</sup> in Indonesia and enhancing and replicating the *eco-pesantren* program a model to promote best environmental education practices elsewhere.

M7YAP also formulated an overarching plan to support funding for projects addressing climate change by way of Muslim Association for Climate Change Action (MACCA). The M7YAP can be viewed as an important model for Indonesia and the rest of the Muslim world. In Indonesia its implementation has already been carried out in some part through environmental movements which run parallel to the expressed aims and goals of M7YAP.<sup>22</sup> These include the efforts of leaders of Islamic boarding schools and NGOs.

Along with those already documented in Mangunjaya et al. (2010),<sup>23</sup> there are many leaders of Islamic boarding schools (*pesantrens*) who have pioneered “green” efforts. Tuan Guru Hasanain Juaini, leader of Pesantren al-Haramain, Nusa Tenggara Barat, Province for example, has distinguished his pesantren from others by establishing a social forestry project that involves students and their families in environmental conservation and economic empowerment. The project has succeeded in reforesting thirty-one hectares land crops motivated by live stock runs for short-term needs and each family is allocated one hectare in which to plant, nurture and harvest trees according to a business plan. Leaders from many other Islamic schools have also begun planting trees to raise funds for their own *pesantrens*. For example, K.H. Husen Muhammad has planted thousands of teak

<sup>21</sup> *Pondok pesantren* are Islamic religious boarding schools *ormadrasahs*, found in Indonesia and elsewhere in Muslim Southeast Asia. This type of school is widespread, with about 21,000 schools and 3.9 million students in the country of Indonesia. The *pesantren* is well known for instruction in religious knowledge led by the “Kiyai” of the *pesantren*, who acts like its Chairman under the authority of its founder. Such schools train Islamic leaders from the local to national level.

<sup>22</sup> See Mangunjaya, F.M., Wijayanto, I., Supriatna, J., Haleem, H., and Khalid, F. 2010. “Muslim Projects to Halt Climate Change in Indonesia,” *Journal of Islamic Perspective* 3, April 2010. Available online: <http://iranianstudies.org/journals/islamic-perspective-journal-number-3-2010>

<sup>23</sup> *Ibid.* This article describes the Muslim actions for planting trees as well as combating climate change in actions in Indonesia in Indonesian pesantren and madrasahs.

trees, “jabon” trees (*Anthocephalus chinensis*) as well as many other species on the grounds of his *pesantren* in Cirebon (north Java) with the participation of students, teachers, and the surrounding community.

Again in Nusa Tenggara Barat, Tuan Guru H. Sofwan Hakim led his *pesantren* in planting of 600,000 various species of tree seedlings at Pesantren Nurul Hakim, which was recognized by the Ministry of the Environment<sup>24</sup> in its effort to promote ongoing involvement of the *pesantren* in environmental action. As a result, the Ministry has led an “Eco-Pesantren” programme to foster the participation of the Islamic society at large in carrying out action on behalf of the environment.

Individuals like those above are among the Islamic religious scholars (*kiyai*) who have been involved in discussions of “Environmental Islamic Law” (“*Fiqh Lingkungan*” or *Fiqh al-Biah*, in Arabic). These discussions were facilitated by a collection of NGOs in Lido, Bogor, in 2003, and which eventually led to the document titled, “The Concept of Islamic Law of the Environment” (“*Menggagas Fiqh Lingkungan*”).<sup>25</sup> In the year 2011, this effort received international recognition when Hanasain Juaini himself received the Ramon Magsaysay Award, often considered as Asia’s Nobel Prize and which is based in the Philippines.<sup>26</sup>

An example of partnerships between NGOs and the State can be found in Daarul Ulum Lido in West Java around Mount Pangrango, which has been selected by the government to channel its “green program.” This initiative specifically aims to engage the *pesantren* with support from conservation NGOs including (IFEES), Konsorsium Gedepahala, and Conservation International who are also involved in reforestation projects in National Parks in Gunung Halimun and Salak, West Java, Indonesia.

Autonomous support for environmental religious education and outreach has also been offered by cultural and humanitarian NGOs. For example, the Maarif Institute Initiative created a supplement to the environmental curriculum and book, “*Islam Peduli Lingkungan*” (2011), in Islamic middle

<sup>24</sup> In 2008, the Ministry of Environment announced a “National program on Eco-Pesantren,” in order to endorse pesantrens activities for the environmental movement. See Kompas, <http://edukasi.kompas.com/read/2011/08/15/16234014/Pondok.Pesantren.Garap.Isu.Lingkungan>.

<sup>25</sup> See *Manggagas Fiqh Lingkungan*, by Muhammad et al., 2004. Also, the writing of Mangunjaya, 2011. *Developing Environmental Awareness*.

<sup>26</sup> In the award testimony, the committee of the Magsaysay award stated, “The project has successfully reforested a once-barren thirty-one hectare tract through a scheme in which families, motivated by a grant of livestock for short-term needs, are allotted a hectare each for them to plant, nurture, and eventually harvest trees according to a clear business plan.” See: <http://www.rmaf.org.ph/Awardees/Citation/CitationJuainiHas.htm>. See also: Radio

schools run Muhammadiyah as supplemental educational materials. This book has since been distributed in the regions of West Java, Central Sulawesi, and Nusa Tenggara Timur as an extension of the module, “Al-Islam dan Kemuhmadiyah” (AIK)<sup>27</sup> which includes module training and activities that can be carried out by the teachers simultaneously. These materials are on a par with the training module and materials developed by the British Council (2010-2011) for teachers, including those in religious schools, on issues related to climate change called, “Climate for the Class” (C4C), which was also supported by Fazlun Khalid from IFEEES and the Darwin Initiative programme.<sup>28</sup>

### Nature Conservation

The development of conservation initiatives would benefit from innovative ideas to enliven and revive humanity’s ancient wisdom of sustainable practices. Islam possesses the tradition of *al-Harim* and *al-Hima* (protected areas), which contribute to the care of the environment. Many “*hima*” in the Middle East have been registered as Important Bird Areas (IBA) as they have not been disturbed for centuries.<sup>29</sup> *Hima* has developed in the Middle East and the Arab world for 1,500 years and continues today. “*Hima*” is also considered by environmental experts as a unique system and conservation approach because it is based on the leadership of the people, and it is maintained by the community residing around the area of the “*hima*” itself.

Unfortunately, the concept of *hima* did not emerge in the teachings of Islam in Indonesia and Southeast Asia. For this reason, many Islamic environmental activists have begun trying to impart the “spirit” of environmental protection based on these old traditions of Islam. Thus, environmental agencies working in Muslim areas globally have tried to develop the model of *hima*, e.g. on Misali Island (Zanzibar), with support from IFEEES and Care

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Netherland, January 6, 2011. Pemimpin Pesantren Peduli Lingkungan. <http://www.rnw.nl/bahasa-indonesia/article/pemimpin-pesantren-peduli-lingkungan>.

<sup>27</sup>) See the book, Mangunjaya, F. et al., 2011. *Islam Peduli Lingkungan*. Maarif Institute, Jakarta. [http://www.maarifinstitute.org/content/view/full/980/169/lang\\_indonesian/](http://www.maarifinstitute.org/content/view/full/980/169/lang_indonesian/)

<sup>28</sup>) British Council Indonesia. Climate for the Classroom. Available at: [http://www.bbc.co.uk/worldservice/science/2010/11/101129\\_climate\\_connection\\_programme\\_two\\_tx.shtml](http://www.bbc.co.uk/worldservice/science/2010/11/101129_climate_connection_programme_two_tx.shtml) [accessed, January 15, 2012].

<sup>29</sup>) Hala, Kilani, Assaad, Serhal, Othman, Llewlyn, “Al-Hima: A way of life,” IUCN West Asia regional Office, Amman Jordan—SPNL Beirut, Lebanon, 2007. See also, “Al Hima the Way of Life,” IUCN. Available at: [http://cmsdata.iucn.org/downloads/al\\_hima.pdf](http://cmsdata.iucn.org/downloads/al_hima.pdf)

International.<sup>30</sup> In Indonesia, an initiative funded by the the Rufford Small Grant Award<sup>31</sup> to develop *hima* was implemented by Conservation International (CI) Indonesia in partnership with Yayasan Owa Jawa, and a *pesantren* in Daarul Ulum Lido in Bogor. This piloted a program to develop a “*harim zone*” system, a which involved the local population caring for a riverbed area. The *pesantren* allocated one hectare of its grounds as its Harim Zone, an area reserved for the protection of the river catchment area, while serving as a place in which students could also learn about biological diversity.

An ongoing, comprehensive initiative that puts into effect an Islamic approach to forest conservation in West Sumatra is the Darwin Initiative Programme funded Britain's Department of Environment, Food and Rural Affairs (Defra), entitled, “Integrating religion within conservation: Islamic beliefs and Sumatran forest management.” Researchers at the Durrell Institute of Conservation and Ecology (DICE), University of Kent first met with Islamic leaders and scholars both in Britain and Indonesia in 2007 to discuss the feasibility and potential of promoting faith-based and customary teachings on the environment across Indonesia. Through these initial discussions it was determined that faith-based teachings could be highly effective in conserving natural resources through changing behavior, rather than just attitudes (which on their own does not guarantee improved conservation), especially when linked to the recognition of the many benefits that ecosystem services provide for humans.

West Sumatra contains some of the most pristine rainforest in Indonesia, and contains within it a watershed that services more than a million people. It is also home to the indigenous Minangkabau (or Minang) ethnic group. Strongly Islamic, the Minang have a rich heritage of religious and cultural traditions, or *adat*, which still have a great influence on daily life. The tight bond between *adat* and Islam is encapsulated in a popular Minangkabau saying, “*adat basandi syara', syara' basandi kitabullah*” which means that all rules and regulations within the community should be based on Islamic religious law and the Qur'an. This provided a valuable opportunity to initiate a faith-based approach to conservation.

<sup>30</sup> Higgins-Zoghbi. 2005. “Misali Island Marine Conservation Area (MIMCA), Zanzibar,” in *Beyond Belief: Linking Faiths and Protected Areas to Support Biodiversity Conservation*. Switzerland: WWF International and ARC, 78-81.

<sup>31</sup> See: “Introducing the Islamic Hima and Harim System as a New Approach to Nature Conservation in Indonesia Phase II.” Available at: [http://www.ruffordsmallgrants.org/rsg/projects/fachruddin\\_mangunjaya\\_0](http://www.ruffordsmallgrants.org/rsg/projects/fachruddin_mangunjaya_0)

With financial support from Rufford Small Grant for Nature Award, a pilot project was launched in West Sumatra in October 2007. Three inter-related land-use management systems that apply Islamic principles within nature conservation were discussed:

- 1) *Hima*—management zones established for sustainable natural resource use;
- 2) *Harim*—inviolable sanctuaries used for protecting water resources and their services; and,
- 3) *Ihya Al-Mawat*—reviving neglected land to become productive.

Workshops held with religious, traditional and village leaders, and representatives from several women's groups from three rural communities, identified the above systems as being loosely practiced within their communities through their *nagari* (legally recognized traditional land use system). Within this system, *adat* law exists that encompasses the relationship between humans and nature.

Although West Sumatran *adat* is specifically structured in accord with Islamic law, project participants agreed that a lack of awareness about these Islamic systems and the institutional capacity to implement them hindered their effectiveness in the sustainable management of forests and their ecosystem services. Further discussions with the wider community in Friday prayers and village meetings found a strong commitment to integrate and formalise religious principles within a fully-functioning land and forest management system, which would provide simultaneous benefits to local livelihoods and biodiversity.

Due to overwhelming support from local partners and based on the valuable information gained during both the scoping award and pilot project, a full project proposal was awarded full support in 2009 for three years. To date, a wide range of activities have been conducted in the project's two field sites, Guguak Malalo and Pakan Rabaa Timur, including: locally managed field schools and nurseries, training on biodiversity survey techniques and community mapping of ecosystem services, and religious management zones. Seventy-three participants from local farmer groups (fifteen of which were women) were trained in tree nursery care, sustainable planting techniques, organic fertilizer and pesticide production and application. Further, at the communities' request, Darwin project staff and local partners are providing the necessary support required to formally apply for a customary forest governance system which will serve as a best management practices pilot for future government replication in West Sumatra. The project has also been working with local religious leaders, teachers, community leaders, youth and women's groups to pilot a conservation

themed education curriculum and conservation campaign that focus on the importance of ecosystem services, such as fresh water and carbon sequestration.

During the holy month of Ramadan in 2011, the project focused on activities promoting the importance of water conservation in its project sites. A Green Mosque campaign was also launched in Guguak Malalo which resulted in a community-led clean up of the neighbouring Lake Singkarak and the planting of fifty Indian willow (*Salix tetrasperma*) seedlings and 750 seeds along 1,500 meters of its coast line. The root systems of this tree species provide a preferred breeding and nursery ground for the endemic, culturally important and critically endangered bilih fish (*Mystacoleucus padangensis*). This event garnered the support of the District Government, and the attention of the national media was aided in part by its success in winning the honor of representing West Sumatra province in a national environmental competition sponsored by the Ministry of Forestry, where it received national recognition as a Conservation Village. Further, a BBC radio documentary featuring the project work in Guguak Malalo was awarded the top five “Climate Change Adaptation stories for the Competition for Best Media Report on Climate Change Adaptation,” organized by UNEP in Bangkok.<sup>32</sup>

The project also worked with two religious leaders in order to design and develop sermons focusing on the importance of water conservation, which were delivered during prayers in eight mosques within the West Sumatran provincial capital of Padang and in both project field sites to over 1,000 people. A further 300 students from religious boarding schools were also taught about environmental issues relating to the importance of watersheds in providing potable water and offsetting the effects of climate change.

In line with the project’s culmination this year, the focus is upon compiling the valuable qualitative and quantitative data to both assess the project’s impact in raising awareness on conservation issues. Two of the Darwin Initiative’s scholars based at the University of Andalas in Padang will also be completing their theses which focused upon: 1) The Interaction between State and the Living Law (Islamic Law and Adat Law) on Natural Resource Management; and, 2) The Role of Religious Leaders in Natural Resource Management. This information will form part of book that the Darwin

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<sup>32</sup> See BBC London, “The Climate Connection: Lost in Translation.” Available at: [http://www.bbc.co.uk/worldservice/science/2010/11/101129\\_climate\\_connection\\_programme\\_two\\_tx.shtml](http://www.bbc.co.uk/worldservice/science/2010/11/101129_climate_connection_programme_two_tx.shtml)



Initiative project staff and partners will publish that describes the Darwin outreach model and shares the lessons learned through its practical application in West Sumatra.

### Recent *Fatwas*

Environmental cases in Indonesia have led to intensifying interest and engagement in many circles, especially among religious scholars who are bound by their moral duty to respond to the challenges of the needs of their community. *Fatwas* (non-binding legal opinions) about the environment have been issued by religious scholars in response to requests to address social problems. The Indonesian Council of Ulama (*Majelis Ulama Indonesia*) has the authority to issue *fatwas*, and twice in recent history it has issued *fatwas* regarding the natural environment.

The first *fatwa*, issued by the *Majelis Ulama Indonesia* Regional IV Kalimantan (Borneo), regarded a prohibition on burning the forest and illegal logging. This *fatwa* was aimed at illegal activities in South Kalimantan Selatan, and the decision is as follows:

Logging and mining that degrade the natural environment and impoverish society or the nation are hereby declared to be *haram* (forbidden). All interests and profits gained from these businesses are not licit and are hereby declared to be *haram*. The effect /standing of this judgment is required (*wajib*) explicitly to be in effect, in accordance with the law.

It has now been six years since this *fatwa* was issued and there has yet to be an academic study to determine whether the *fatwa* was effective or had any social influence, especially among Muslims, who live in the province of Kalimantan.

Second, there was a recent *fatwa* issued in 2011 by the central committee of the *Majelis Ulama Indonesia* on the question, “Environmentally Friendly Mining.” In cooperation with the Ministry of the Environment, this *fatwa* has put forward guidelines that are more detailed than the previous *fatwa* on illegal logging, and offers a more comprehensive rationale for the ruling, as follows:<sup>33</sup>

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<sup>33)</sup> Quoted from: KLH (Ministry of the Environment), 2011. *Fatwa MUI tentang Pertambangan Ramah Lingkungan*. KLH: Jakarta.

- a. To strengthen standing of state law, especially with respect to environmental justice in the sector of mining;
- b. Provide correct clarification and understanding to all levels of society regarding religious law with respect to issues connected with the natural environment; and,
- c. Attempt to apply moral and ethical norms and sanctions to those concerned regarding the importance of environmental care in the mining sector.

These two *fatwas* represent a new way of thinking that invokes a moral order as an instigator for change in behavior and action in order to stop the destruction of the environment. In addition, this is an attempt on behalf of the Ministry of the Environment to insitgate “*dakwah*” (religious outreach). This resulted in the deployment of 5,000 preachers to stop illegal logging at the grassroots level.<sup>34</sup>

Unfortunately, there is little scientific research that evaluates whether these efforts, in the form of *fatwas* and *dakwah*, really have had any effect on positive behavior change regarding the environment, or even whether the perception within society is that environmental matters ought to be addressed. However, these efforts in Islamic Indonesia, in addition to those projects previously mentioned and the ongoing governmental works (e.g. the establishment of conservation areas, which are based on Islamic teachings), may soon prove to be a model for the global Muslim world.

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<sup>34</sup> “Ministry employs 5,000 preachers to preserve forests,” *The Jakarta Post*. July 17, 2011. <http://www.thejakartapost.com/news/2011/07/17/ministry-employs-5000-preachers-preserve-forests.html>

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