PART 4

Science, Religion and Sustainable Development
CHAPTER SEVEN

An Islamic Model Towards Sustainable Environment

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Introduction

Muslim scholars often claim that the concept of religion (called al-din in the Qur’an) contains all the various aspects of life. According to the concept of al-din, Islam not only explains the relationship of humankind with God but also the relationship of people with other creations in the universe. The concept also teaches every Muslim that Islam establishes harmonic and holistic interaction between people and nature based on the Qur’an and the Sunnah. Generally, the Islamic worldview and way of life consist of three main aspects: ‘aqidah, shari‘ah and akhlaq (Yahya and Fatchurrahman, 1986: 35).

‘Aqidah refers to fundamental beliefs in Islam. It involves belief in Allah as the one God with the highest attributes, who is the Creator of the universe including the earth and humankind. Belief in the oneness of Allah (tawhid) is the most fundamental teaching in Islam. Other aspects, such as belief in holy books and messengers, are built on the doctrine of tawhid. Therefore, the explanation of the worldview and cosmology in Islamic teachings is found in the principles of ‘aqidah (Nasr, 1992: xxv). Shari‘ah refers to the set of Islamic laws, rules and regulations relating to individual conduct, household life, social interaction and governance. The rules and regulations cover all aspects of life such as worship, marriage and properties, punishment of criminals, court procedures or judicial matters and constitutions of the state. Therefore, the role of shari‘ah in Islam is very important in guiding human conduct and managing human life in terms of
prosperity and peace. Akhlaq is the aspect of Islamic teachings relating to human conduct and moral behaviour. Basically, akhlaq provides guidance on how people should communicate or interact among themselves and also with other creatures in the universe. In addition, akhlaq also teaches humankind about the theory of values and duties, the concept of virtue and retributive justice. Akhlaq is the nearest equivalent in Islam to the Western notion of ethics. The main sources of akhlaq are the Qur’an and the Sunnah, rather than human thought, as in the Western tradition.

Based on these three aspects, it is proposed that the Islamic approach towards environmental conservation is comprehensive (syumul) and integrated (kamil and mutakamil). Generally, the Islamic approach consolidates these three aspects together because each has its own role in human life. The role of 'aqidah is to instil humans with a harmonious worldview of the environment, whereas the role of shari’ah is to guard and monitor human activities, so as not to disturb the natural equilibrium of the ecosystem. Finally, the role of akhlaq is to establish a moral value system for humankind, so that their conduct can be assessed as good or bad for the environment. By consolidating these three aspects, the Islamic approach pays equal attention to internal and external matters of human life.

The Role of ‘Aqidah in Environmental Conservation

The fundamental principle in ‘aqidah is tawhid, the doctrine of the oneness of Allah, within which all aspects of Muslim life are considered, including attitudes towards the environment. The doctrine emphasises that there is none like Allah, either in terms of His existence or His actions (Qur’an, 42:11). There is also no one who is worthy of His praiseworthy names or has His glorious attributes. Fundamentally, all Islamic teachings are built on the doctrine of tawhid. According to the doctrine, the Lord not only created the universe but also arranges its laws and monitors its motions. Therefore, all creatures in the universe totally belong to Allah (Ibid.: 22:64). Everyone must submit to Allah, and not be dominant by acting as He does, because the universe will be destroyed (Ibid.: 21:22). In other words, everyone has to behave as a humble creature like other creatures on earth.

The doctrine of tawhid also contains the belief in Allah’s praiseworthy names and His glorious attributes or al-asma’wa al-sifat. In relating to al-asma’ wa al-sifat, the doctrine of tawhid asserts that the whole universe is under Allah’s supervision, so that everyone is prohibited from harming him/
herself and other creatures in the universe. According to Islamic teachings, the universe is not created for nothing by Allah the Almighty but to fulfil a number of clear purposes.

(a) The creation of the universe is evidence of the existence of Allah the Almighty (Ibid.: 10:31). While the holy Qur’an provides the arguments for the existence of Allah through readable evidence (kitab al-mastur), the universe proves His existence through the visible evidence (kitab al-manzur) (al-Qaradhawi, 2001: 31). Therefore, humans should respect the universe, including their environment.

(b) The universe holds the various kinds of knowledge revealed by the Creator (al-Khaliq) (Qur’an, 3:191–2). In this sense, the universe can be regarded as an ‘open laboratory’, where humankind gains knowledge through research and observation. In this context, Osman Bakar (1991: 63) observes: ‘Nature is a source of many types of knowledge: mathematical, physical and metaphysical, scientific and spiritual, qualitative and quantitative, practical and aesthetical’. Because of this, humans should appreciate nature and deal with it according to the acquired knowledge.

(c) The creation of the universe is a reward to humankind, which means they have great benefits to gain from the universe (Qur’an, 2:29). They must always remember, however, that the universe belongs to Allah, so they have no right to destroy the universe and disrupt its balance. Humans also must conserve the environment because it is like a sumptuous gift from Allah the Almighty.

(d) The universe is created by Allah for the purpose of providing facilities for humankind to worship Him and to serve other creatures. For instance, Allah gives water to be used by humankind for ablution prior to performing worship (Ibid., 8:11). In addition to this purpose, the entire universe itself performs worship and engages in remembrance of Allah (Ibid., 59:1). Therefore, humans should not vandalise nature because it is created as their facility on earth.

(e) The creation of the universe is a medium through which God the Almighty may test humans to see which of them is better (Ibid., 11:7). According to Sayyid Abu al-A’la al-Mawdudi (2006: 449), the purpose of creation was to create humans and then put them to the test, to see who does good deeds and who does not. Thus, humans have to realise that every single action upon the environment will be evaluated by Allah, whether it is a good deed or a bad deed.
The universe is under the controlling system of Allah the Almighty, who is the only *Rabb*, meaning the Master, the Nourisher, the Sustainer and the Guardian of the whole universe. In other words, Allah the Almighty directs and controls the universe systematically by establishing universal laws, which are known as *sunnatullah* (al-Faruqi and Lamya, 1992: 336). The universe other than humankind has no choice but to either willingly or unwillingly submit to Allah (Qur’an, 3:83). Allah the Almighty creates humankind with two choices: either to submit to Him by following the *sunnatullah* or not. Those who submit will live on the earth in harmony with nature and will be rewarded in the hereafter, while those who do not will live on the earth in difficulty and will be punished in the hereafter. In guiding humankind to choose the right path, Allah the Almighty sends His messengers and gives them wisdom (reason).

The Islamic faith emphasises the doctrine of *tawhid* or oneness of God, which means the faith rejects the doctrine of pantheism that believes the universe as a whole and nature in the widest sense are identical with God (Mautner, 2000: 407). In other words, the Islamic faith upholds that the universe does not have divine attributes as in the doctrine of pantheism, but the universe that was created by Allah the Almighty demonstrates His magnificence. According to Zaini Ujang (1993: 25–29) the universe's attributes are as follows.

(a) *Mizan* (symmetry). The entire universe, including humankind, exists symmetrically, which means everything is created by Allah the Almighty in pairs (Qur’an, 36:36). Every pair exists in complementarity to each other, thus its existence is always in a state of balance. Because of symmetry, each component of the universe moves in harmony following its own law that has been ascertained by God the Almighty upon it. As part of the universe, humankind has to respect the universe's symmetry and follow the universal measure in order to keep harmony with the universe.

(b) *Tawazun* (equilibrium). Because of symmetry, every component of the universe exists in a state of balance or *tawazun*. Normally in ecology, the state of balance is called equilibrium. In *Surah al-Rahman* verses seven and eight, Allah the Almighty reveals that He has raised up the heaven and then has set a balance, so that humankind has to keep the balance and cannot transgress it (*Ibid.*, 55:7–8). According to al-Mawdudi (2006: 1108), most commentators have interpreted the word ‘balance’ or ‘equilibrium’ in these verses...
as signifying justice, which means that God the Almighty made justice embrace the entire universe. Therefore, keeping the universe’s equilibrium means upholding justice.

(c) Nasim (flourish). Literally, nasim as an Arabic term means soft wind or breeze. In this regard, Allah the Almighty said in *Surah al-A’raf* verse 57:

And it is He who sends forth winds as glad tidings in advance of His mercy, and when they have carried out a heavy-laden cloud, We drive it to the dead land, then We send down rain from it and therewith bring fruits of every kind. In this manner We raise the dead that you may take heed (Qur’an, 7:57).

In this verse, Allah the Almighty sends winds to the dead land in order to make it flourish, so that it can support living beings including humankind. Specifically, nasim refers to fertile land (the earth) that can support human survival instead of the universe in general. Therefore, humankind has no right to make mischief on the earth after it has been set in good order by God.

(d) Jamal (beauty). Allah the Almighty has created the universe with an accurate measure and has set up the whole universe in good order. Because of this, the universe is full of aesthetic values or jamal (beauty). The aesthetic values can be found in the entire universe, in animals, plants and also in humankind. Allah the Almighty has ordained such attributes in *Surah al-Nahl* verse six and *Surah al-Hajj* verse five (*Ibid.*, 16:6 and 22:5). Moreover, Allah the Almighty symbolises the aesthetic values in His holy book, an adornment (zinah), which humankind is offered for calmness and learning (*Ibid.*: 50:6–8). Such beauty can disappear if humans disrupt the natural balance.

Such attributes portray the magnificence of Allah the Almighty in creating and administrating the entire universe with a very comprehensive system. Although the universe moves by following its comprehensive system, it, and especially the earth, is free to be affected by any alteration (taskhir) by humankind (al-Faruqi and Lamya, 1992: 337). In other words, humankind has great potential to modify the natural landscape of the earth. Actually, such potential is given by Allah to humankind in order to prepare them to accomplish their duties as His vicegerents on earth. In this regard, Seyyed Hossein Nasr (1997: 21–22) has listed three main duties that have been imposed on humankind: ‘ubudiyyah, khalifah and amanah.
(a) ‘Ubudiyyah (servant of Allah the Almighty). The first duty that has to be performed by humankind is to serve God the Almighty, as He has mentioned in the holy book that humankind is created for nothing else but to serve Him (Qur’an, 51:56). Serving Allah the Almighty means humankind has no choice except to perform all his commandments and avoid all his prohibitions without any right to question the reason behind the command. As servants of Allah the Almighty, humankind has to obey all His predestined plans and not disassociate itself from the system of the universe. This duty prescribes humans not to destroy nature because it is indeed Allah’s property.

(b) Khalifah (vicegerent of Allah the Almighty). In order to complement its duty as a servant of Allah the Almighty, humankind is also appointed by Him to be His khalifah or vicegerent on earth (Ibid., 2:30). According to al-Mawdudi (2006: 9), khalifah literally means one who exercises the authority delegated to him by his principal. The principal here refers to Allah the Almighty, and humankind only exercises the authority delegated to it by Allah. In other words, humankind is not the master on the earth permitted to do whatever it wants, but His representative who needs to manage nature properly.

(c) Amanah (trustee of Allah the Almighty). Because its role is to exercise the authority delegated to it by Allah the Almighty, humankind has to accomplish this duty by regarding it as amanah or trust. According to al-Mawdudi (Ibid.: 880), amanah signifies the burden of responsibilities that Allah the Almighty has given humankind on the Earth after endowing it with reason as well as power and authority. In al-Mawdudi’s opinion, humankind has a great responsibility to live with nature in harmony and also to avoid any destruction.

‘Aqidah in this regard plays a major role in establishing a harmonious worldview for individual Muslims. Positively, the worldview not only contains dual polar relationships between humankind and nature but also their relationships with God the Almighty. In this sense, the Islamic worldview is clearly different from the secular worldview that only perceives the dual polar relationship. The Islamic worldview is not only accepted as a concept supported by human reason but every single Muslim must uphold
it as an article of faith. As a belief, the Islamic worldview plays an influential role in determining an individual or group attitude to the environment. Besides establishing the worldview, ‘aqidah also reveals the answer to the question: What are human duties or human obligations on the earth? In other words, ‘aqidah is considered a Muslim’s philosophy of life, by which a Muslim realises her duties and obligations. Every single Muslim has to believe that Allah the Almighty does not create her for nothing, but to accomplish certain duties or obligations assigned by Him. In fact, Allah the Almighty has assigned humankind to be His servant (‘ubudiyyah), His vicegerent (khalifah) and His trustee (amanah). All these duties and obligations complement each other, so that humankind has to perform them simultaneously. Only by performing these duties and obligations will humankind live in harmony with nature.

The Role of Shari'ah in Environmental Conservation

Basically, shari’ah is the second aspect of Islamic teachings referring to divine rules and laws revealed by Allah in the Holy Qur’an, and extended by the Prophet’s teachings in the Sunnah (Md. Akhir Yaacub, 1997: 28). Yusuf Al-Qaradhawi (2001: 21) provides a wider definition, however, which includes any rule and law legislated by Allah the Almighty through the Qur’an and the Sunnah, and also any extended rule and law established by ijma’ (consensus), qiyas and other sources. On the basis of this definition, shari’ah contains divine rules and laws related to every single aspect of human life, which are practised by an individual or a group like a family and also practised by Muslim rulers as state laws. Inevitably, among these divine rules and laws, there is a set of rules and laws related to environmental conservation.

Specifically, shari’ah guides humankind on the way it should interact with God the Almighty, the way it should interact with each other and the way it should interact with nature. Thus, shari’ah pays great attention to environmental conservation by imposing on humankind certain divine rules and laws relating to the environment. Examples of these rules and laws are given here.

(a) Rule on water for purification. Purification is compulsory for everyone whenever they prepare to perform prayers and other rituals. Hygienic water is the main tool for purification either for ablution or for taking a bath. According to ‘Abd al-Rahman al-Jaziri (1994:
28), hygienic water are all types of water that come down from the sky, like rain, and all types of water that come out from the earth like springs, which are still unpolluted. As long as these types of water are unpolluted they can be used for purification and washing. Therefore all water sources like springs, wells and rivers need to be protected from pollution. In this regard, the Prophet (pbuh) in a Hadith narrated by al-Bukhari from Abu Hurayrah prohibited anyone from urinating in inflow water that may pollute the water sources and prevent them being used for purification (al-Bukhari, 1998: 68). Clearly, the Hadith orders every Muslim to conserve water sources and not to pollute them.

(b) *Rule on the earth as a mosque.* According to *shari'ah*, every Muslim is allowed to perform prayers at any place on the earth as long as the place is hygienic, because every part of the earth is considered a mosque. In a Hadith narrated by al-Bukhari from Jabir, the Prophet (pbuh) is reported as saying that among the privileges of his nation, Allah the Almighty made the earth as a mosque (*Ibid.*: 86). Symbolically, the Hadith teaches every Muslim to keep the earth clean by avoiding any pollution. Commonly, every Muslim considers a mosque a sacred place, in which he is forbidden to spit or even to make a noise. Moreover, the Prophet Muhammad (pbuh) prohibited those who eat raw onion and garlic from entering mosques because their smell may offend the public (al-Nawawi, 2001: 50–52). Clearly, the analogy of the earth as a mosque indicates the duty of every Muslim not to pollute the environment.

(c) *Rule on hisbah.* Literally, *hisbah* means the duty of commanding *ma'ruf* or good and forbidding *munkar* or evil (Llewellyn, 2003: 220). Those who perform this duty are called *al-muhtasib*. The Arabic term *ma'ruf*, which is mentioned at least 39 times in *al-Qur'an*, refers to an action that produces benefits for either an individual or to society (Izzi Dien, 1997: 40). On the other hand, the Arabic term *munkar* means an action that produces harm to an individual or to society (Hassan Salleh, 1984: 104). Actually, the concept of *hisbah* has been practised in Islamic tradition as both a voluntary contribution and an official institution. Therefore, every Muslim has an obligation to command *ma'ruf* or good and forbid *munkar* or evil in his/her society. The voluntary contribution may involve an individual participation or a group involvement such as civil
society in performing *hisbah*, which inevitably includes the issue of environmental protection. In order to ensure *hisbah* has been practised in a society, the government has to establish it as an official institution. Among the tasks of the official institution is to protect the environment (Izzi Dien, 1997: 42).

These three examples are some of the substantive laws and rules that already exist in *shari'ah*, and which are closely related to environmental conservation. Therefore, Islamic environmental regulations are feasibly established. In fact, the establishment of environmental rules and laws can be considered a practical dimension of Islamic environmental ethics. However, *shari'ah* also plays another vital role in this regard, which is to formulate environmental policy and environmental management by applying an appropriate approach in *usul al-fiqh* or the principles of jurisprudence. In this regard, the application of this approach can be analysed by using certain cases of Islamic practices such as the practice of *harim* and *hima*.\(^1\) Thus, the application of *fiqh* in formulating environmental policy and environmental management can be regarded as another practical dimension of Islamic environmental ethics.

Although Muslim jurists usually define *fiqh* by remarking on its difference to *shari'ah*, *fiqh* is actually part of *shari'ah*. *Fiqh* refers to the knowledge that contributes to formulating al-ahkam al-shar'iyyah (divine laws or divine rules) by using divine sources and other acknowledged sources like *qiyas* (al-Qaradhawi, 2001: 21). According to Mawil Izzi Dien (2004: v), the divine sources are the Qur'an, the Sunnah and *ijma*; while the human sources are *qiyas*, *istihsan* (juristic preference) and *sadd al-dharai'i* (closing off the means that can lead to evil). By referring to these sources, especially the Qur’an and the Sunnah as the primary ones, Muslim jurists formulate religious laws including those relating to environmental conservation. In this regard, *fiqh* offers systematic methods to establish policies of development and also to formulate manuals of management towards environmental conservation.

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\(^1\) *Harim* and *hima* are among the rules in *shari'ah* which are closely related to environmental conservation. In *shari'ah*, *harim* and *hima* are contained in most books of Islamic *fiqh* under the chapter on *Ihya al-Mawat* (dead land development). Literally, *harim* means forbidden or inviolate zone, whereas *hima* means protected or reserved zone.
*Fiqh* extends the capability of *shari’ah* to face modern issues such as the environmental crisis. Such issues have probably not been discussed in classical *shari’ah* law or in certain cases the issues have not been stated in order. Thus, according to Willis Jenkins (2005: 341), *fiqh* offers pragmatic sources, precisely because existing *shari’ah* law may inadequately address environmental issues. The practice of *harim* and *hima* is an example of Islamic environmental practice, almost similar to the contemporary establishment of protected areas. The practice of *harim* and *hima* also indicates the dynamic application of *fiqh* to environmental issues by the use of acknowledged sources like *Maslahah al-Mursalah* and *Maqasid al-Shari’ah*. Such sources have already emphasised the concept of values that is known in modern ethics as axiology, as well as the concept of duties that is known as deontology. Therefore, by applying the axiological and deontological approaches, *fiqh* offers another practical dimension of Islamic environmental ethics apart from the existing *shari’ah* laws.

**The Role of Akhlaq in Environmental Conservation**

The previous discussion on *akhlaq* focused on the theory of values or axiology and the theory of duties or deontology. The discussion on both theories is usually undertaken in considering their application in *fiqh*. There is another perspective of *akhlaq* that is known in contemporary ethics as the theory of virtues. Basically, *akhlaq* is very concerned with behaviour that may lead to an individual doing an action spontaneously, without any process of reasoning prior to the action (al-’Abdi, 1985: 7). In other words, the action is taken by an individual because of genuine habit that is moulded by his/her intrinsic virtues. Therefore, virtue may be considered as the pillar of *akhlaq* because it emphasises character building that is usually generated by faith and rituals.

In Islamic teachings, the theory of virtues is referred to in *Tasawwuf* or Sufism, which is related to *akhlaq* apart from the theory of values and theory of duties. In fact, in contemporary ethics, the theory of virtues is usually related to psychology. Once again, one of the most prominent Muslim ethicists in this field was al-Ghazali. According to Mohamed Ahmed Sherif (1975: 4), when al-Ghazali classified knowledge into certain categories he defined *akhlaq* as the knowledge that deals with the way of how humankind ought to act in order to be good and virtuous in its character. Based on this definition, the theory of virtues in *akhlaq* emphasises the role of the soul
and its purification. In this regard, al-Ghazali suggested that virtues can be acquired in the following three ways: habituation, learning and divine generosity (Ibid.: 31).

Basically, *Tasawwuf* is practised as a way or path (*suluk*) to produce pious Muslims by cultivating good character through the process of psychospiritual activities (*tazkiyah al-nafs*). According to al-Qaradhawi (2001: 26), as *al-din al-mu‘amalah* (religion of coherence), Islam not only guides its followers in how to build a relationship with God the Almighty but also how to interact with other creatures. In the context of Islamic environmental ethics, the role of *tazkiyah al-nafs* or self-purification is very important in order to cultivate good character, so that every Muslim may interact with nature in harmony. *Sifah al-mahmudah* or good character leads a Muslim to build a good relationship with God the Almighty and also to build a good relationship with His natural world. The good characteristics in *akhlaq* that are closely related to environmental conservation are as follows.

(a) *Qana‘ah*. The Arabic term *qana‘ah* literally means contentedness, the opposite of *tama‘* (desire or greed) (al-Marbawi, n.d.: 158). This is considered a good characteristic in *akhlaq*. According to al-Ghazali (1998: 310), *qana‘ah* is a characteristic of a pious Muslim who avoids being greedy and is always contented with what she/he has. He added that those who have this characteristic only eat to fulfil their basic needs and keep food only for a period of a month or less (Ibid.: 310). Based on al-Ghazali’s descriptions, clearly *qana‘ah* is a characteristic that fits with the concept of sustainable development, and therefore guides every Muslim to adopt an environmentally-friendly lifestyle. A Muslim must not waste natural resources because Allah the Almighty hates those who consume something unwisely (Qur’an: 25:67). Thus, *qana‘ah* in Muslim society can prevent overexploitation or overconsumption of natural resources. In other words, *qana‘ah* encourages every Muslim to practise green consumerism.

(b) *Mahabbah*. *Mahabbah* derives from the Arabic term *habba*, which literally means love (al-Khudrawi, 2002: 79). Basically, every Muslim is required to love Allah the Almighty and His Prophet (pbuh) more than all else. Loving Allah and His Prophet should be first, and followed by loving others for the sake of Allah the Almighty. This principle of love is based on a Hadith narrated by Anas bin Malik in which the Prophet Muhammad (pbuh) said:
Three signs: those who have them will achieve the sweet pleasure of faith; those who love Allah and His Prophet more than anyone else, those who love someone for the sake of Allah and those who hate to return to *kufr* (disbelief) after embracing Islam and hate to be thrown into the fire (Muslim, 1998: 40).

The principle actually encourages humankind to love others, including other creatures in nature, for the sake of Allah the Almighty. In his book *Ri'ayah al-Bi'ah*, al-Qaradhawi (2001: 30) reports that the Prophet Muhammad (pbuh) manifested this principle of love by saying: ‘Here is Tabah, and this is Uhud, the mountain that loves us and we also love it’. Al-Qaradhawi (*Ibid.* ) then comments further that the Prophet’s statement signified a very great example, when he portrayed the mountain of Uhud like a human being that has emotion and heart. Based on the Prophet’s manifestation, the concept of *mahabbah* also includes love of other creatures for the sake of God the Almighty.

(c) *Ihsan*. The Arabic term *ihsan* means to perform an action in a perfect manner (al-Khudrawi, 2001: 96). According to al-Qaradhawi (2001: 120), Islam educates every Muslim to interact with all around them by applying *ihsan*, because he has been asked by the Prophet (pbuh) to do so in a Hadith narrated by Shaddad bin Aws. In the *hadith*, the Prophet (pbuh) said:

> Verily, Allah has prescribed *ihsan* with regard to all things, thus whenever you kill, do it in the best manner. And whenever you slaughter, do it in the best manner. Let one of you sharpen his knife, so that it gives ease to the animal (Muslim, 1998: 873).

Thus, al-Qaradhawi (2001: 120) states further that every Muslim must interact with the environment in the best manner, by applying all qualities of *itqan* (neatness), *ihkam* (precision), *ishfaq* (compassion), *ikram* (respect) and *hannan* (kindness). Basically, all these qualities build up the concept of *ihsan*. Humankind also needs suitable knowledge about nature, for example ecology and geography, to fulfil the qualities of *itqan* and *ihkam*, prior to applying *ihsan* when it interacts with the environment. Therefore, *ihsan* prepares every Muslim with the best environmental character, so that they will live in harmony with nature.

(d) *Shukr*. The Arabic term *shukr* literally means thankfulness or gratitude (al-Khudrawi, 2002: 221). In the holy Qur’ān, God the Almighty mentioned this term 74 times in various chapters. Among
them is verse 152 of Surah al-Baqarah when God the Almighty said: ‘So remember Me and I shall remember you, and give thanks to Me and do not be ungrateful to Me for My favours.’ Because the Qur'an repeats the word so many times, it is considered that shukr is one of the most important parts of akhlaq. According to al-Ghazali (1998: 117), those who have such character can be recognised by three signs: first, they intend to spread and share the benefits that they have received with all creatures; second, they demonstrate their thankfulness by always praising Allah; and third, they perform obligations that are commended by Allah and avoid whatever is prohibited by Him. In al-Ghazali’s explanation, performing a good action upon nature is considered as one way to give thanks to God the Almighty. On the other hand, those who destroy nature can be considered as kufr al-ni’mah or ungrateful to Him for what He has given them.

These are some of the virtues in akhlaq that are related to environmental conservation. In this regard, the theory of virtues can be applied to establish an environmentally-friendly lifestyle for an individual or a society. Perhaps, in order to promote such a lifestyle in Muslim societies, tazkiyah al-nafs that is always practised in Tasawwuf or Sufism is the best way of achieving the purpose. While the axiological approach and deontological approach in akhlaq emphasise more the theoretical dimension of Islamic environmental ethics, Tasawwuf offers a practical approach by promoting an environmentally-friendly lifestyle in Muslim societies. Therefore, the theory of virtues in akhlaq can be regarded as another alternative in the practice of Islamic environmental ethics.

**Theoretical Dimension**

Probably the first question that has to be answered is: what is Islamic environmental ethics and does it exist? Indeed, environmental ethics is not only a moral practice but also a discipline of knowledge discussing the most appropriate value system in a society in the context of environmental conservation. Islamic environmental ethics is not merely an application of Islamic ethical principles for environmental issues but also has to be considered as a new discipline or subdiscipline in Islamic knowledge. As a discipline of knowledge Islamic environmental ethics has its own theory and outlines its own practice in Muslim society.
Since the first Muslim response to environmental issues, Muslim scholars have discussed this topic deeply and have made many suggestions related to it. Most prefer to use the term ‘Islamic environmental ethics’ rather than ‘Islamic ethics of environment’. The term Islamic environmental ethics indicates it is a body of knowledge, not an extension of other knowledge (ethics) for discussing environmental issues. Perhaps, the discourse on Islamic ethics of environment has already reached the point where institutional change can happen. Therefore, it is no longer just an application of Islamic ethical principles to environmental issues but has also progressed to being a new discipline of knowledge.

Although it is a new discipline in Islamic knowledge, it does not mean Islamic environmental ethics has to propose a new and separate epistemology. In this regard, Izzi Dien (2000: 81) suggests that the ingredients for such a discipline are, in fact, no more than dissected parts of Islamic theology, Islamic laws and Islamic ethics because the discipline can only be valid if it is a fusion of the inseparable elements of Islam. In other words, Islamic environmental ethics applies Islamic methods and maintains reference to divine sources, but since it is a discipline of knowledge all these activities are done systematically. Thus, all relevant methods in Islamic knowledge have to be organised and all divine sources have to be adjusted to match topics of environmental ethics. At the same time, the structure of contemporary environmental ethics can be assimilated as long as it is accepted by the Qur’an and the Sunnah.

Therefore, if we acknowledge Islamic environmental ethics as a discipline of knowledge or body of knowledge, it deserves to be classified into theory and practice. Theory consists of basic concepts of environmental conservation from an Islamic perspective. Generally, the concepts can be divided into three main topics: environmental worldview from an Islamic perspective, environmental duties from an Islamic perspective and environmental values from an Islamic perspective. These topics may contain specific subtopics, so that in this way the discipline of environmental ethics is organised systematically and structurally. This is indeed the most important attribute of a discipline of knowledge.

**Environmental Worldview**

The first important topic that establishes the Islamic theory of environmental ethics is the environmental worldview. Basically, ‘aqidah must be the basis of the environmental worldview from an Islamic perspective. 'Aqidah
answers great questions relating to the worldview: What is the origin of the universe? What is the concept of nature? And what is the relationship of humankind with the environment? As explained earlier, the most important pillar of 'aqidah is tawhid or the doctrine of oneness of Allah the Almighty. Therefore, all these major questions related to worldview are already revealed by God the Almighty in the Qur’an and the Sunnah based on tawhid. Certainly, all Muslims, regardless of their sect, unite in believing the doctrine of the oneness of Allah the Almighty, the most important pillar of their worldview.

Apart from tawhid, there is a broad discourse on theology that also relates to the concept of creation. The discourse of theology is known in Islamic knowledge as 'ilm al-kalam. There were some schools of thought in 'ilm al-kalam, like al-Ashai'rah and al-Mu'tazilah, that were different to tawhid. Also there were some debates relating to the concept of the universe in 'ilm al-kalam, for instance, the debate between al-Ghazali and Ibn Rushd. Among the questions in 'ilm al-kalam that relate to an environmental worldview are: are there laws of nature? what is the doctrine of cause and effect? and is the universe alive? In this regard, 'ilm al-kalam can clearly enrich an environmental worldview, so that such discourses should be revived when seen from an environmental perspective.

In this regard, the practice of harim and hima portrays an implementation of traditional ecological knowledge. As long as the knowledge does not oppose tawhid or the doctrine of the oneness of God the Almighty, it can be accepted as part of an Islamic environmental worldview. In fact, Muslim societies have rich traditional ecological knowledge because their spread is very great, from Indonesia to Morocco. The practice of harim and hima, for instance, has shown that the Prophet and classical Muslim scholars paid great attention to traditional ecological knowledge. Today, environmentalists have explored the world to seek traditional ecological knowledge that they believe offers a more harmonic worldview than the modern one. Therefore, the variety of traditional ecological knowledge across the Muslim world can enrich the existing Islamic environmental worldview.

In this context, Muslim scholars do not totally reject science, especially modern ecology, as a source of the Islamic environmental worldview. Although there are some theories in modern ecology which oppose tawhid like evolutionary theory, there are also some points of convergence between modern ecology and Islam. For instance, both modern ecology and Islam agree that balance or equilibrium is among the important attributes of
nature and should be preserved. Most recent environmental issues have been perceived through scientific knowledge, for instance, modern ecology, so it is important for Muslim scholars to assimilate such knowledge into Islamic teachings as long as it is verified by the Qur’an and the Sunnah.

These following four bases make the Islamic environmental worldview relevant to contemporary environmental issues, but most importantly they are rooted in the pillar of *aqidah*, that is *tawhid*. Based on this worldview, like other theories of environmental ethics, the Islamic perspective also proposes its own principles of environmental ethics.

- **Principle 1**: Everything in the universe, including humankind and its environment, is created by God the Almighty, and does not exist by accident.
- **Principle 2**: God the Almighty has not created the universe including humankind for nothing, but He has specified the purpose of the creation in His holy books, including the Qur’an.
- **Principle 3**: Everything in the universe is a sign showing and pointing to the transcendental being that is God the Almighty (Odzemir, 1997: 185).
- **Principle 4**: God the Almighty has created everything in the universe in due proportion and measure both quantitatively and qualitatively (Bakadar, 1997: 72).
- **Principle 5**: All creations of God the Almighty can be divided into physical creations and metaphysical creations, which require humans’ concern whenever they take any action upon them.
- **Principle 6**: Humankind is part of the universe, the components of which are complementary to one another in an integrated whole (*Ibid.*: 73).
- **Principle 7**: The relationships of humankind and the universe are not one-to-one relationships, but both humankind and the universe have to manage the relationships according to their relationships with God the Almighty.
- **Principle 8**: The universe, including humankind and the environment, belong totally to Allah the Almighty, while the role of humans is only as His servants, His viceregents and His trustees.

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2 For example, deep ecology proposes eight principles underpinning its worldview. See Arne Naess (1998: 439).
- **Principle 9:** The right to utilise and exploit natural resources necessarily involves an obligation on man’s part to conserve them both quantitatively and qualitatively (*Ibid.*: 74).
- **Principle 10:** Because of their role as God’s viceregents and God’s trustees, everyone will be judged by Him in the afterlife about their obligations.

These principles can be considered an Islamic environmental charter that can also be applied as a business charter of a private company and also as the basic principles of a state policy (Izzi Dien, 2000: 153–54).

**Environmental Values**

Discourse on environmental values usually represents the major part of the theory of environmental ethics. However, there is an important question pertaining to environmental values: What is the origin of environmental values? Are they created by human beings or are they something that already exists in the world? (Palmer, 2003: 16). Such questions inevitably cause conflict, because different perspectives will surely perceive different values in evaluating human conduct upon the environment (O’Neill *et al*., 2008: 4). According to Clare Palmer (2003: 16–17), there are two kinds of values involved in answering the question: first, subjective values that refer to intrinsic values created by humankind and attached to their lives; and second, objective values that refer to intrinsic values already existing in nature. Islamic scholars should answer such questions in order to establish a comprehensive theory of Islamic environmental ethics.

Both kinds of values as suggested by Palmer actually refer to the same values, that is, intrinsic values. The difference is that the former is created by humankind and the latter already exists in nature. Because of the difference there are four contemporary perspectives on the theory of environmental ethics: anthropocentrism, biocentrism, ecocentrism and technocentrism. The term intrinsic values, however, has a variety of senses, so that many arguments about environmental ethics suffer from conflating them (O’Neill *et al*., 2008: 144). Besides intrinsic values, it is also possible to see extrinsic values or instrumental values as the basis of environmental ethics (Palmer, 2003: 16). In this sense, the consensus among people to achieve certain positive goals can also be considered environmental values. Therefore, what kind of values does the Islamic perspective suggest in establishing a theory of environmental ethics?
According to Izzi Dien (2000: 85), Islam assumes neither anthropocentric values nor non-anthropocentric values. Islam assumes that the valuer is not a member of a particular species, but the Creator who creates all species. In other words, Islam acknowledges the intrinsic values that already exist in the universe, but those values are recognised through revelations. In this regard, Islamic environmental values seem to agree with biocentrism and ecocentrism, which assume that the intrinsic values already exist in nature and are not created by humankind. According to Islam, those values can be recognised by the Qur’an and the Sunnah prior to human reasoning such as scientific knowledge and rational arguments as assumed by biocentrism and ecocentrism. Human reasoning can only be acknowledged if there is no such explanation in the Qur’an and the Sunnah.

As has already been explained, Allah the Almighty created the universe to achieve certain purposes. One of the purposes of creation is to provide facilities for humankind to worship Allah and to serve other creatures. In other words, all creatures totally belong to Allah the Almighty, and He lends them to humankind as bounties (ni’am). Thus, the connotation of ni’am is everything totally belonging to Allah the Almighty and it is borrowed by humankind to facilitate its life. In this regard, ni’am can be considered as an intrinsic value because it indicates the value of something in the universe. Apart from viewing the purposes of the creation, the Qur’an and the Sunnah also explain the attributes of the creations such as mizan, nasim, jamal and zinah. Such attributes can also be considered as intrinsic values. Therefore, the Islamic perspective acknowledges intrinsic environmental values by perceiving them through the Qur’an and the Sunnah.

Although Islamic environmental values seem to agree with biocentrism and ecocentrism, they also seem to agree with anthropocentrism. In this regard, the Islamic perspective acknowledges extrinsic values or instrumental values, if the values are the means to achieve another positive goal. Once again, the valuer is not humankind, but the Creator. In other words, the goals to which the values lead are dictated by the Qur’an and the Sunnah, not by human desires. Perhaps extrinsic values can also be accepted by other sources of shari’ah such as al-maslahah al-mursalah (public interest), al-‘urf (custom) and sadd al-dhara‘i’ (closing off the means to unlawful ends). Such sources represent the application of the axiological approach in usul al-fiqh. Thus, one of their roles is to determine the positive goals in formulating extrinsic environmental values.

As regards the extrinsic values, it is also possible to recognise the value of something according to the Islamic perspective. Normally the values
that are usually used, especially related to food, are halal (permissible) and haram (forbidden). In the sense of extrinsic environmental values, it is also possible to use other values in Islamic glossaries such as hasan (correct) and qabih (incorrect) or tayyibah (good) and sayyi'ah (evil). Such values help assess whether something can be used or not according to environmental criteria. In other words, instead of using religious-free environmental values such as environmentally friendly and environmentally non-friendly, the Islamic perspective proposes religious or sacred environmental values including halal and haram, hasan and qabih or tayyibah and sayyi'ah.

Clearly, as Izzi Dien (Ibid.: 85) notes, Islam proposes neither anthropocentric values nor non-anthropocentric values, but the values that are prescribed by the Creator of the universe. Such values help establish the theory of Islamic environmental ethics and can be transformed into practice by the establishment of Islamic standards of environmental labelling, similar to Islamic standards of food labelling that are widely practised in Muslim countries. In order to establish Islamic standards of environmental labelling more research will be needed.

**Environmental Duties**

Besides an environmental worldview and environmental values, another important aspect is environmental duties. The discourse of environmental duties usually refers to Kantian ethics, especially his categorical imperative and hypothetical imperative, whereas from an Islamic perspective human duties to the environment are revealed by Allah the Almighty. As noted earlier, Nasr (1997: 21–22) suggests three main duties that have been imposed on humankind: ‘ubudiyyah, khalifah and amanah. Such duties actually mean that humans are answerable to Allah the Almighty, even though the duties need to be performed for the sake of the environment.

Based on al-ahkam al-shar’iyyah (rulings of the sacred law), environmental duties can be classified into wajib (obligatory), mandub (desired), mubah (permissible), makruh (reprehensible) and haram (forbidden). For instance, building up green landscapes is considered mandub and will be rewarded by Allah the Almighty in the hereafter. Such duty is considered mandub because the Prophet (pbuh) is reported to have encouraged Muslims to plant trees even though doomsday is imminent. In this regard, Izzi Dien (1990: 194) observes: ‘Even when all hope is lost, planting should continue, for planting is good in itself’. Without the Islamic perspective, greening the
earth is only a human moral obligation, which has no justification in terms of the hereafter. From an Islamic perspective, environmental duties can be considered as religious duties, so that every Muslim is answerable to Allah the Almighty.

In contemporary theory of environmental ethics, in the end the discourse of environmental duties usually comes to the concept of environmental citizenship. Environmental citizenship or ecological citizenship refers to the new extension of human duties involving their duty to non-human beings, their duty to future generations and their duty to maintain the integrity of nature. Therefore, environmental citizenship proposes a new demand for humans to take account of the impact of their activities on the environment and natural processes (Sutton, 2007: 52–53). In this regard, Islamic environmental duties can also help to establish the concept of environmental citizenship. Moreover, with a complete list of Islamic environmental duties from Islamic teachings, it is also possible to establish the constitution of environmental citizenship from an Islamic perspective.

**Practical Dimensions**

Besides the theoretical dimension, as a discipline of knowledge Islamic environmental ethics can also be studied from a practical angle. Since Seyyed Hossein Nasr’s (1968) *The Encounter of Man and Nature*, which represented the first Muslim response to environmental issues, most Muslim interventions have focused on the theory of Islamic environmental ethics. In other words, the discourse of Islamic environmental ethics is usually concerned with the environmental worldview, environmental values and environmental duties. Some researchers tackled the practical dimension but the numbers were very small. For example, in 1983 a group of Muslim scholars were involved in research that was done in order to recommend Islamic environmental regulations to the government of Saudi Arabia. According to Izzi Dien (2000: 5), the research could be used to provide grounds for Islamic legislation on the environment, but such legislation has not materialised till today.

The practice of environmental ethics usually involves environmental regulation, environmental policy, environmental management and environmental education. Practising environmental ethics through such an approach inevitably needs political will, otherwise the environmental ethics remains in its theoretical form. However, before the political will takes place, there
is an important stage in which the theory of environmental ethics is enabled to be transformed into practice. In contemporary ethics, this stage is usually called applied ethics based on applied research (Patton, 2002: 217).

In order to develop the best approaches to practising Islamic environmental ethics, such research should be increased. Among the objectives is the formulation of an application plan for Islamic environmental ethics as an extension to the theoretical and philosophical discourses. By focusing on certain Islamic practices, the effort will yield the best approach to putting Islamic environmental ethics into practice. We propose two approaches to practising Islamic environmental ethics: first, the assimilation of shari'ah into environmental laws and rules; and second, the application of usul al-fiqh to environmental policy and management. Apart from these, there is another approach that can be used, which is the implementation of Tasawwuf in environmental culture and lifestyle.

**Environmental Laws and Rules**

Basically, most rules in *shari'ah* can be seen to relate to environmental conservation because one of the purposes of *shari'ah* (*maqasid al-shari'ah*) is to ensure that humankind meets its basic needs (*al-umur al-daruriyah*) (Qaradhawi, 2001: 44–52). To this end, *shari'ah* provides particular rules to protect religion, life, intellect, lineage and property. Actually, the natural environment is the most precious property of humankind because all things that are owned by people originally come from the natural environment. Therefore, al-Qaradhawi (*Ibid*.: 39) mentions in *Ria'yah al-Bi'ah fi Shari'ah al-Islam* the rules relating to environmental conservation discussed in the chapter on *taharah* (purification) and the chapter of *jihad* (war) in *shari'ah*. In other words, *shari'ah* arranges the relationships of humans with their environment, in addition to arranging their relationships with the Lord and also among themselves.

*Harim* and *hima* are among the rules in *shari'ah* which are closely related to environmental conservation. In *shari'ah*, *harim* and *hima* are contained in most books of Islamic *fiqh* under the the chapter on *ihya' al-wawat* (dead land development). This chapter discusses the ownership of dead land passing to whoever brings it to life and explains the rules for land development for various economic activities including agriculture. According to the Prophet Muhammad (pbuh), whoever develops dead land has a right to own it. Not all types of land can be developed, however, nor be owned by private
individuals. The chapter specifies certain type of lands that are prohibited by shari’ah from being developed and certain types of land that can be owned by anybody. Preventing development and ownership of land protects the public interest as well as avoiding destruction (mafsadah).

The analysis of harim and hima indicates that certain laws and rules in shari’ah can be assimilated to be practised as environmental regulations. In this regard, the practice of harim and hima is similar to the contemporary practice of sustainable forestry and protected areas. Harim is defined as a forbidden or inviolate zone, land that cannot be developed in order to preserve the area from pollution and destruction (Llewellyn, 2003: 210), while hima is defined as a protected or reserved zone, referring to land that is protected by the ruler or government for certain purposes like grazing and breeding or to keep the zone free from any development (Izzi Dien, 2000: 196). Clearly the practice of harim and hima emphasises the importance of environmental conservation. In fact, harim and hima are among the shari’ah laws that directly relate to contemporary environmental issues. In other words, harim and hima can be practised as one of the solutions to preserve ecosystem and biodiversity. Protected areas and forest reserves refer to an area of land especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, which are managed through legal and other effective means (Dudley and Phillips, 2006: 3). As already noted, there are other rules and laws in shari’ah that pay similar attention to environmental conservation, such as those on water for purification, treating the earth as a mosque and rules on hisbah.

Therefore, the analysis of these practices discloses an approach to practising Islamic environmental ethics which is the assimilation of existing laws in shari’ah with the contemporary practice of environmental conservation. Such an approach involves at least four processes: first, the process of identifying relevant laws and rules in shari’ah; second, the process of disseminating related shari’ah knowledge; third, the process of rebranding the contemporary environmental practice; and fourth, the process of institutionalising the related shari’ah laws.

**Identifying Relevant Laws and Rules in Shari’ah**

The process of identifying relevant laws and rules in shari’ah inevitably needs the cooperation of two groups: Muslim jurists and environmental scholars. Both groups are important in order to discover which shari’ah laws are
relevant to current environmental issues. Such a process actually involves much research on shari'ah laws. Through this process, the complete list of relevant shari'ah laws can be released for the next process.

**Disseminating Related Shari’ah Knowledge**

Disseminating related shari’ah knowledge is a process of upgrading research reports into knowledge. All the research reports on shari’ah laws related to environmental practice need to be published in formal or informal academic communications. According to John Ziman (1987: 58–59), any research finding is only transformed into knowledge if it has been published and invites other researchers in the same academic community to justify the findings. Disseminating research findings on relevant shari’ah laws means the findings can be transformed into knowledge. This process will probably result in a new discipline or a new sub-topic in shari’ah that compiles all relevant shari’ah laws under a new theme, for instance, al-ahkam al-bi‘ah (environmental regulations).

**Rebranding Contemporary Environmental Practice**

After the research findings have been acknowledged as shari’ah knowledge then they can be matched with the relevant contemporary environmental practice. At this stage, the relevant shari’ah laws need to be prepared in order to replace contemporary environmental practice, by ensuring their relevant roles and functions. For instance, in the case of harim and hima, it is important to ensure that their role and function match with the contemporary practice of protected areas and forest reserves. Appropriate terms need to be found, either the original shari’ah terms or other suitable shari’ah terms.

**Institutionalising Related Shari’ah Laws**

Finally, it is important to legalise the relevant shari’ah laws as an act. Such a process needs the involvement of lawmakers and politicians. At this stage the relevant shari’ah laws are no longer just knowledge but also an act that has a legal impact in a society. In the context of environmental regulations, shari’ah laws have great potential to be institutionalised as a credible environmental act, at least to be practised in Muslim countries.
Environmental Policy and Management

Usul al-fiqh also offers very systematic methods to establish environmental policy as well as to formulate environmental management. Although certain Islamic practices were originally based on the Qur’an and the Sunnah, classical Muslim jurists had developed the practices in order to adapt to new circumstances. They applied suitable methods in usul al-fiqh such as qiyas, al-maslahah al-mursalah, al-‘urf and sadd al-dhara‘i‘ to extend these practices. Besides these methods, Izzi Dien (2000: 114–15) suggests other methods in usul al-fiqh such as Islamic legal maxims (qawa'id al-fiqhiyyah). Clearly, usul al-fiqh can be regarded as a comprehensive guide to policymakers in establishing environmental policy and management.

Therefore, the application of usul al-fiqh in establishing environmental policy as well as in formulating environmental management can be considered as another approach to the practice of Islamic environmental ethics. Jenkins (2005: 341) suggests that the second approach can be applied if existing shari‘ah laws inadequately address recent environmental issues. He adds that usul al-fiqh offers a practical Islamic approach to environmental problems in contrast with the theoretical approach as offered by Islamic cosmology (Ibid.: 358–59). Inevitably, such an approach requires Muslim jurists who understand environmental issues and environmental scientists who appreciate traditional methods of usul al-fiqh.

In fact, the most important process pertaining to the establishment of environmental policy and the formulation of environmental management is ijtihad or fatwa rulings. Ijtihad is a jurist’s exertion of his reason to formulate the principles of the revealed law and apply them to new problems and situations (Llewellyn, 2003: 192). At the higher authoritative level, ijtihad is done by a group of Muslim jurists who are responsible for fatwa rulings (Izzi Dien, 2004: 144). Perhaps ijtihad and fatwa rulings should be the first step in applying usul al-fiqh in order to establish environmental policy and environmental management. This process helps to provide environmental axioms and environmental standards that are important for the formulation of environmental policy and management.

Usually, environmental policy consists of economic and social policies that are framed to achieve environmental goals. Sometimes, environmental regulations are also considered part of environmental policy. According to James Connelly and Graham Smith (2003: 149–50), environmental policy should involve regulation enforcement, economic instruments and
a voluntary approach. In this regard, *usul al-fiqh* can be applied to legalise suitable environmental regulations, to establish economic and social policy. In order to achieve these goals, it is important to establish a *fatwa* council or any authoritative *shari'ah* body that focuses only on environmental issues. Apart from establishing environmental policy, a *fatwa* council or authoritative *shari'ah* body can also propose environmental standards than can be used to formulate environmental management. Today, environmental management usually involves two aspects: procedure (ISO 14000) and environmental impact assessment. ISO 14000 and environmental impact assessment have no connection with Islamic environmental values, even if they are practised in Muslim countries. The standards that are represented by ISO 14000 and environmental impact assessment are not derived from Islamic sources, so that they lack religious or sacred values. Therefore, applying Islamic environmental standards in procedures of environmental management and environmental impact assessment can be regarded as the practice of Islamic environmental ethics.

**Conclusion**

The discussion in this chapter reveals that the Islamic way of life contains very comprehensive teachings pertaining to sustainable environment. In this regard, these teachings consist of three branches: ’*aqidah*, *shari’ah* and *akhlaq*. Every branch contributes in a different way to environmental conservation. ’*Aqidah* provides a harmonious environmental worldview, *shari’ah* guides the establishment of environmental regulations and *akhlaq* leads to the cultivation of environmental character. Islamic environmental ethics integrates all these ways because each is complementary with the others. Such an integrated approach is known in Islamic terms as *kAMIL* and *mutakamil* (comprehensive and integrated).

Using the comprehensive and integrated approach, it is also possible to classify the Islamic model into a theoretical dimension and a practical dimension. The theoretical dimension usually involves an environmental worldview, environmental values and environmental duties, while the practical dimension involves environmental regulations, environmental policy and environmental culture. Two approaches can be developed in order to practise Islamic environmental ethics related to environmental regulation and environmental policy: the assimilation of *shari’ah* into environmental regulation and the application of *usul al-fiqh* to environmental policy and
management. Therefore, the discourse of Islamic environmental ethics should be extended to the practical dimension instead of being limited to the theoretical dimension as in the past.

References


