

Religion and pro-environmental behaviour: a comparative analysis towards environmental protection

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Abstract: Faith factors strongly influence pro-environmental behaviours toward proactively solving environmental problems. This paper investigates different faith traditions and their link to the concept of environmental protection rooted within the major religions in Malaysia. In addition to a systematic literature review, data were collected using a cross-sectional qualitative study based on interviews with religious experts in Islam, Christianity, Buddhism and Hinduism. The study found that the religions of Islam, Buddhism, Christianity and Hinduism strictly prohibit the mismanagement of the environment. These religions dictate that one of the core responsibilities of humans is to act as caretaker of the Earth and its population. These religions are also believed to restore faith in protecting the environment and have the potential to be an effective medium to promote pro-environmental behaviour. This study proposes that the Malaysian Government integrate the element of religion in environmental policies that are used to nurture pro-environmental behaviour. Major mediums, such as education and media that are used to promote environmental awareness, should use religion as an element to heighten pro-environmental behaviour in order to cultivate sustainable communities.

Keywords: religion; pro-environmental behaviour; sustainable communities; environment; Malaysia.

Reference to this paper should be made as follows: Abdullah, M.S. and Keshminder, J.S. (2020) 'Religion and pro-environmental behaviour: a comparative analysis towards environmental protection', *Int. J. Environment and Sustainable Development*, Vol. 19, No. 2, pp.174–194.

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1 Introduction

Climate change has remained an unsolved issue facing the world today. The United Nations Framework Convention on Climate Change (UNFCCC, 2018) has stated, "Climate change presents the single biggest threat to sustainable development everywhere and its widespread, unprecedented impacts disproportionately burden the poorest and most vulnerable." Economic sectors such as manufacturing, agriculture and transportation have contributed to excessive greenhouse gas emissions (GHG) over the past 150 years (New Zealand Ministry for the Environment, 2018).

The effects of climate change on the environment include, the shrinking of glaciers, shifting of plant and animal ranges, and intense heat waves (National Aeronautics and Space Administration, 2019). These effects will persist well into the future if no action is taken. The Earth is bleeding due to injuries inflicted by the loss of harmony between humans and nature (Aung, 2017). Undeniably, this situation shows that humans have a massive moral crisis (Gada, 2014). This loss of harmony is not a natural occurrence but instead is a result of conscious human actions through economic development and industrialisation.

According to a report by the United Nations (2018), the air breathed by 91% of the world's urban population in 2016 did not meet the World Health Organization's air quality guidelines, and half were exposed to polluted air that was at least 2.5 times higher than the prescribed safety standard. In the same year, approximately 4.2 million people died as a result of the high level of ambient air pollution. In addition, sea levels are rising as are global temperatures, an increase in extreme weather conditions and GHG emissions. These environmental changes show the inefficiency of current actions and calls for accelerated climate action by countries to their commitment towards sustainable development goals which are designed to make cities and human settlements inclusive, safe, resilient and sustainable. There is a need to take urgent action to combat climate change and its impacts.

Climate change issues can only be solved if the world's population commits to protect Earth against climate change; otherwise, efforts by governments around the world will not succeed. In Malaysia, for example, under the Environmental Quality Act 1974, pollution can cause a maximum fine of RM 500,000. Yet in 2017, 90 out of the 140 rivers were classed as polluted (Mahadi, 2019). This clearly indicates that self-realisation to protect the environment is still not occurring.

Efforts have been made to change the behaviour of populations toward greener behaviour through conventional means, including education, media and government policies. Yet, these media have not been as efficient as desired. This is probably because environmental concepts have not been properly evaluated nor described explicitly in the content of school subjects (Rahman, 2018), and media exposure has not resulted in any significant influence on environmental behaviour (Zainuddin and Qader, 2011). The

controlling approach adapted by some governments has also weakened environmental motivation, thus negatively affecting the adoption of pro-environmental behaviour (Lavergne et al., 2010).

On the other hand, one's worldview and beliefs can influence attitudes and actions, thus showing that faith can play a tremendous role in one's behaviour (Aung, 2017). Religion and environment share similar phenomena where religious systems influence human interaction with environmental systems and religious traditions change with the changing environment (Jenkins and Chapple, 2011). Religions emphasise the importance of preserving the environment and the need for interfaith cooperation to cultivate sustainable communities. Therefore, the role of religions is crucial as a channel to respond to environmental crises by shaping pro-environmental behaviour. Pro-environmental behaviour refers to any behaviour that meets the objective of reducing negative impacts on the environment (Kollmuss and Agyeman, 2002).

Although much devotion has been given to the potential of a religion's role to respond to climate change, the engagement between religions and environment remains unfulfilled (Carlisle and Clark, 2018). Far too little attention has been given to the religious influence onto pro-environmental behaviour. Hence, this study aims to investigate how religion influences pro-environmental behaviour as well as to identify channels that have the potential to promote pro-environmental behaviour using religion as the basis.

2 Literature review

2.1 Pro-environmental behaviour

Pro-environmental behaviour can be defined as "behaviour that consciously seeks to minimise the negative impact of one's actions on the natural and built world" [Kollmuss and Agyeman, (2002), p.240]. The term 'pro-environmental behaviour' is often mistakenly interchanged with 'environmental behaviour' – the latter referring to any interaction of humans with the environment regardless of its impact (Krajhanzl, 2010). Table 1 shows the differences between pro-environmental behaviour and environmental behaviour:

Table 1 Differences between pro-environmental behaviour and environmental behaviour

| | <i>Environmentally friendly</i> | <i>Environmentally significant</i> |
|-----------------------------|--|--|
| Pro-environmental behaviour | Behaviour that is friendly to the environment | Behaviour that gives significant impact to the environment |
| Environmental behaviour | Behaviour that is both friendly or unfriendly to the environment | Behaviour that gives significant (not friendly) or insignificant impact to the environment |

Source: Adopted from Krajhanzl (2010)

Pro-environmental behaviour is the behaviour or action that is both friendly to the environment and at the same time results in significant positive impacts to the environment; for instance: water conservation, energy saving or recycling. On the other hand, environmental behaviour can be divided into two aspects: environmental unfriendly behaviour or environmental insignificant behaviour. Any activities that give significant

impact but are not friendly to the environment are considered environmental unfriendly behaviours, while any environmentally friendly or unfriendly behaviour that gives insignificant impact to the environment is environmental insignificant behaviour. Examples of environmental behaviours are hiking, camping or running in the park.

2.2 Religion as a channel to promote pro-environmental behaviour

As ideologies, worldviews and beliefs are indispensable determinants of one's morality (Aung, 2017), religion can play a role in pursuing a persuasive vision toward a sustainable future (Tucker and Grim, 2001). Religions influence how people interact with the environment (Jenkins and Chapple, 2011). Religions teach their followers the concept of responsibility and ethical usage of natural and environmental resources so that the Earth is not drained of its resources as this will cause a loss of biodiversity (Shaikh, 2018). All religions honour the harmonious relationship between the Earth and religious values, and set obligations to be followed to protect the Earth. Abusing and exploiting the Earth are deemed cruel and considered a sin by all religions (Aung, 2017). Moreover, there have been calls from various parties for religious communities to participate in the effort of reshaping humans' worldviews to show respect for and responsibility toward the Earth. This summons is beginning to get a positive response, and is steadily growing (Tucker and Grim, 2001).

2.3 Education and pro-environmental behaviour

Education systems can provide necessary knowledge and related skills to protect the environment (Valinas et al., 2010). Therefore, education can play a significant role in environmental concern and behaviour (Zsóka et al., 2013). 'Environmental knowledge' is defined as knowledge and awareness related to environmental problems and possible ways to solve these problems (Zsóka et al., 2013). Wang et al. (2013) have emphasised that new sustainable development-oriented concepts, paradigm knowledge and wisdom need to be applied to academic courses and curricula in order to transform society. "Insertion process, integration and the relationship on the environment into formal and informal education" are a definition for the infusion of environmental education [Mustam and Daniel, (2016), p.10]. Among the approaches for successful infusion are practising student-centred learning, utilising students' existing strengths, exhibiting experiential teaching orientation, using cooperative techniques, involving external experts and continuously reflecting upon and planning lessons (May, 2000).

Despite being a good strategy, influencing younger generations to practice pro-environmental behaviour through education, remains insufficient. Several studies have shown that the level of awareness in environmental education among teachers is still low (Ismail, 2004; Mageswary et al., 2006; Ponniah, 1996; Teoh, 1996). Thus, the importance of environmental education will not be well integrated into the classroom environment. Due to the low level of environmental awareness, the intensity of environmental education also varies in scope and impact depending on the interest and effort of the educators (Rahman, 2018). Religion can be included in lessons in order to benefit the education sector in promoting pro-environmental behaviour. Religious teachings, regardless of religious affiliation, encompass valuable life principles that are crucial in one's life (Ntho-Ntho and Nieuwenhuis, 2016). Students and teachers will not

only learn about the religion; they will also learn from the religion (Puskás and Andersson, 2019).

2.4 Media and pro-environmental behaviour

The agenda-setting theory proposed by McCombs and Shaw (1972) states that media have a critical role in influencing perception and directing thoughts toward a specific agenda or person. As the world experiences technological advancement, the preference for media channels is also changing. From the 7.7 billion people of the world population, 55.1% of them are internet users with a growth of 1066% between the years 2000 and 2018 (Miniwatts Marketing Group, 2018). With the emergence of social media applications, such as Twitter and Facebook, people, especially the youth, are more connected with each other. These applications are also used by industry and government agencies to communicate with the general public (Khan, 2016). Social media can act as a persuasion channel (Froehlich, 2009) and there are a number of ways social media have been used to encourage sustainable behaviour, from highlighting individual environmental impacts to incentivising group pro-social behaviours (Petkov et al., 2011).

Traditional media, such as printed media and television, have also played a critical role in disseminating information for decades. Environmental reporting is a focused subject where certain printed media offer columns and feature programs on the environment, yet often the coverage is quite primitive and limited (Khan, 2016). Discovery Channel, National Geographic and Animal Planet are among television channels that attract attention towards the environment, but the environmental issues often lack commercialisation and thus, not many editors feel that the environment is an agenda worth covering (Khan, 2016).

In contrast, several studies have shown that media have little effect in shaping attitudes and behaviours. Wray et al. (2005) found that media exposure only made small increases in beliefs and behaviours towards a health campaign. Zainuddin and Qader (2011) showed that, although knowledgeable people were exposed to media, the dose of exposure was relatively low, and this media exposure did not result in a significant influence on their environmental attitudes. Carrete et al. (2012) argued that media communication had not contributed substantially to environmental knowledge, due to scepticism of the advertising shown which was far from being true and instead, acted for the company's self-interest only. Even so, Zainuddin and Qader (2011) suggested that there should be an increase in media exposure on environmental issues to help optimise people's awareness which could lead to positive behaviours. The media can still play an important role in influencing participation into pro-environmental behaviour. Besides, the media is one of the most important sources of information and contemporary spirituality for religion today and media use for broader understanding is needed in the present context as people value experience more than cognitive knowledge of certain religious aspects (Cloete, 2016).

2.5 Government and pro-environmental behaviour

Governments have the main responsibility to determine the future condition of the environment and ensure the health of the environment for the next generation (Lin et al., 2017). Bell (2002) describes five key roles for governments in promoting sustainability:

vision or goal setter, leader by example, facilitator, green fiscal authority, and innovator or catalyst. Table 2 describes the key roles for governments in promoting sustainability,

Governments as authoritative bodies should play an important role in policy formulation towards pro-environmental behaviour. Trust and credibility can be built with the establishment of a coherent regulatory and coherent framework (Carrete et al., 2012). Implementation of several policies, such as transportation tax credits, rebates for programmable thermostats and discounts on insurance of hybrid vehicles can motivate the public to engage in pro-environmental behaviour (Lavergne et al., 2010). Policies such as tax exemptions and subsidies to green businesses might encourage corporations to produce green products and services (Ali and Ahmad, 2016). In addition, governments can issue regulations to manage the sustainability of the environment in the form of mandatory activities, voluntary activities or prohibited policies (Lin et al., 2017). Environmental regulations may create competitive advantages (Nishitani and Itoh, 2016) as the regulation adopters are viewed as the frontrunners (Carter and Dresner, 2001). On the other hand, a study by Carrete et al. (2012) has found that people are demanding that governments provide the necessary infrastructure related to public transportation and the separation of waste (organics and recyclables) to promote pro-environmental behaviour.

Table 2 Explanation of key roles for governments in promoting sustainability

| <i>Key roles for government in promoting sustainability</i> | <i>Explanation</i> |
|---|---|
| Vision or goal setter | Government as a 'steering' unit that controls the direction of society moving towards sustainability by achieving goals in public policy. |
| Leader by example | Government practises sustainability in its operation to set an example to its people. |
| Facilitator | Government creates a desirable 'framework condition' for sustainability. |
| Green fiscal authority | The role of government to control the fiscal policy for a sustainable economy and shift to 'green budgeting'. |
| Innovator or catalyst | The promoting effort for sustainable innovation and strategies within the government and other sectors. |

Source: Adopted: Bell (2002)

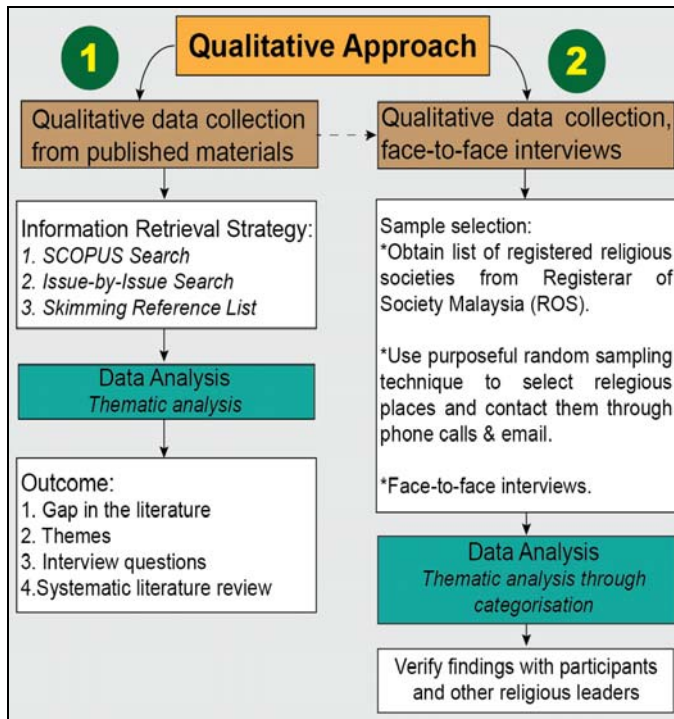
However, a study by Lavergne et al. (2010) shows that the perception of the government as controlling can also play can be detrimental to pro-environmental behaviour. External motives such as external regulation and introjection seem to weaken environmental motivation thus affecting the frequency of pro-environmental behaviour. Governments should be less controlling and support autonomy drivers to inspire pro-environmental motivation.

3 Methodology

To investigate the role of religion in promoting pro-environmental behaviour, a cross-sectional qualitative study via a systematic literature review and interviews were undertaken. This study was conducted in Malaysia as Malaysia is a multiracial country where people of diverse race and religion live under one nation. A qualitative approach

was adopted for the purpose of this study. This approach was necessary since there was no single complete study that provided a clear linkage between religion and pro-environmental behaviour. Therefore, an exploratory treatment was required. The qualitative experimental design was divided into two parts (see Figure 1). The first part consisted of data collection from published materials. It was important to collect all information that specifically linked religion and pro-environmental behaviour. A complementary information retrieval method was deployed to collect data from published materials (Del Rio et al., 2015). Within this method there were three stages of data collection. First, a SCOPUS search was executed to find credible literature from top journals linking religion and pro-environmental behaviour. Then, an issue-by-issue search was done to find the most recent materials related to religion and environmental behaviour especially from the religions of Islam, Buddhism, Hinduism and Christianity. Lastly, the reference list of all the materials that was found from the earlier two stages was skimmed to further intensify the findings.

Figure 1 Qualitative experimental design (see online version for colours)

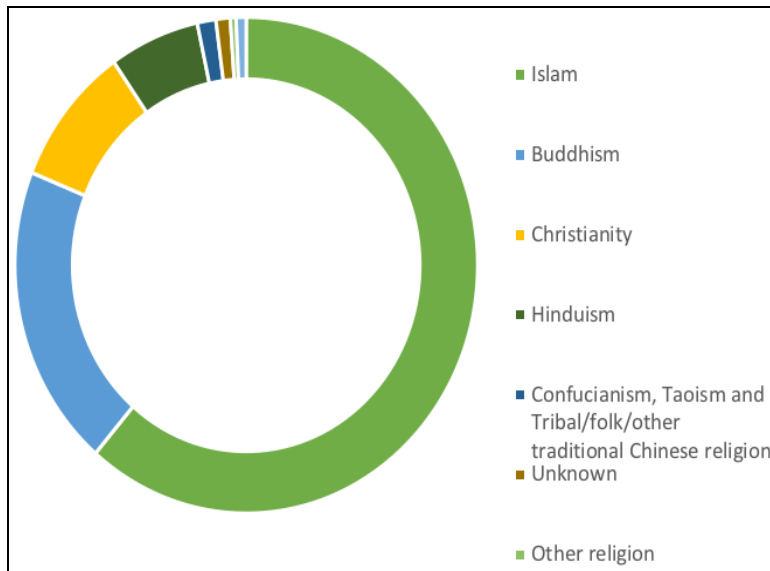


Source: Author's own

The first part of the qualitative data collection assisted in executing the systematic literature review. The literature was used to obtain fruitful information related to channels that influenced pro-environmental behaviour. From the systematic review, it was found that there were four channels to promote pro-environmental behaviour, namely, education, media, government, and religion. This literature was necessary to structure this study through past suggestions and fill the gap in the literature, specifically in the area of using religion as a mechanism to promote pro-environmental behaviour.

The second part of the data collection employed a case study approach, as this form of inquiry was appropriate for the exploratory nature of this study (Anderson, 2010; Yin, 2014). To select participants, the major religions in Malaysia were first identified. Based on the *Population Distribution and Basic Demographic Characteristic Report 2010 (Updated: 05/08/2011)* by the Department of Statistics Malaysia (2011), there are four major religions in Malaysia which are Islam, Buddhism, Christianity and Hinduism (see Figure 2). These religions combined encompass up to 96.6% of the Malaysian population and are the religions that have a high potential to influence the Malaysian population in adopting pro-environmental behaviour.

Figure 2 Percentage distribution of the population by religion, Malaysia (2010) (see online version for colours)



Source: Department of Statistics Malaysia (2011)

Next, a list of registered religious societies was obtained from the Registrar of Society Malaysia (ROS). All places of worship in Malaysia must register under the ROS. Next, a random purposive sampling method was implemented to select the participants for the interview. The participants were from the four religions and were among the officially appointed religious leaders of their respective religions in Malaysia: Islam, Buddhism, Christianity, and Hinduism. The official appointment criterion is important because the religious leader that is appointed is required to have a formal education or exposure to the respective religious doctrine. These criteria ensured the reliability and validity of the data. The religious leaders were contacted through phone calls and e-mails. One participant was selected for each religion. One case for every religion was sufficient because the subject matter and the scope of the study was clear; therefore, one case was enough to provide sufficient information (Yin, 2014)

The data collection in the second part was completed by face-to-face interviews. The interview sessions were necessary to cover the gap in the researchers' knowledge, especially in understanding each religion's sect or school of thought that was being used

in Malaysia. A semi-structured interview method following an interview protocol was conducted. Each interview session lasted approximately one hour and remained open-ended. Probing questions emerged during the interview process. The interview transcripts were sent back to the participants for validation and were further verified with other religious leaders. Data from the literature were then compared to the verbal data obtained from the interviews. The sources assisted in the coding and categorisation processes. From this, a holistic outcome was produced for this study.

In this qualitative study, the process of data collection and analysis was recursive and dynamic, while the analysis became more intensive once all the data were gathered (Merriam and Tisdell, 2015). Data analysis in both parts was conducted using thematic analysis which enabled the analysis of textual information and identified its properties systematically. The text was coded into categories before being analysed using conceptual analysis and relational analysis. Conceptual analysis analyses and interprets texts by coding them into manageable categories. The relationship between concepts was analysed, thus, relational analysis occurred (Sekaran and Bougie, 2016). In Section 4, the participants are addressed as 'Participant 1' for Islam, 'Participant 2' for Buddhism, 'Participant 3' for Christianity and 'Participant 4' for Hinduism.

4 Findings and discussion

4.1 *Islam*

Islam, being the second largest religion in the world and the largest in Malaysia, has an imperative role in shaping humans' behaviours toward becoming pro-environmental. The principle of Islam, which is guided by Quran and Hadith, has outlined guidelines for its followers regarding environmental protection. First, Islam comes from an Arabic word meaning 'peace'. 'Peace' in Islam is not limited to spiritual peace and peace among humankind, but also peace with the environment. In Islam, there are three kinds of relationships that humans need to nurture: relationship with God, relationship with other humans, and relationship with nature. As a monotheistic religion, a Muslim is bound to give complete submission to the will of God (Aung, 2017). The concept is expressed through God's words in the Quran:

"Do you not know that to Allah belongs the dominion of the heavens and the earth and [that] you have not besides Allah any protector or any helper?" (Quran 2:107)

"And I did not create the jinn and mankind except to worship Me." (Quran 51:56)

As the creator, God has provided humanity with life and wealth from the Earth's resources for humans to use wisely to make a living. God has entrusted the Earth to humans and, as obedient servants, humans should take good care of this gift from God. Humans are merely a representative or steward (Khalifa) of God on Earth. Before the creation of Adam, God had notified the angels of his plan to create a human and place it on Earth. The angels were against this due to the potential mischief that could result on Earth, but the Lord countered the argument with a reminder of God's great knowledge. This occurrence is stated in the Quran:

“And [mention, O Muhammad], when your Lord said to the angels, “Indeed, I will make upon the earth a successive authority.” They said, “Will You place upon it one who causes corruption therein and sheds blood, while we declare Your praise and sanctify You?” Allah said, “Indeed, I know that which you do not know.”” (Quran 2:30)

The angels had predicted the destruction that humans would cause even before Adam was created, and as can be seen in today’s scenario, this prediction was correct. Nonetheless, God convinced the angels he was right and had full trust in humans as the proper steward or ‘successive authority’ on Earth. Therefore, as a rightful representative of God, people should care about the environment and use it wisely to live a peaceful life. However, the trust given is not a license for humans to subdue or exploit the environment for their own benefits (Moghul and Safar-Aly, 2015). Humans have no dominant position over the flora and fauna and all creations are at the same level. Quran has stressed that:

“And there is no creature on [or within] the earth or bird that flies with its wings except [that they are] communities like you. We have not neglected in the Register a thing. Then unto their Lord, they will be gathered.” (Quran 6:38)

The concept of Khalifa or stewardship in Islam means that Muslims should use natural resources responsibly without pushing boundaries and causing a loss of precious biodiversity (Shaikh, 2018). Environmental stewardship refers to the ethical use of natural resources to improve the welfare of society, other creations and sustainability for future generations (Alghamdi, 2014). Besides the concept of Khalifa, Muslims also believe in the concept of the afterlife, where everyone will be judged and sent to heaven or hell. This concept can influence intertemporal choices and environmental behaviour. The effort to restore the environment needs to be done cumulatively and consistently (Shaikh, 2018), regardless of whether large or small actions are taken. In Islam, it is believed that during the judgement day, all humans’ actions will be considered, regardless of how small they may have been.

Prophet Muhammad mentioned the benefits of preserving the environment in several verses:

“There is none amongst the Muslims who plants a tree or sows seeds, and then a bird, or a person or an animal eats from it, but is regarded as a charitable gift for him.” (*Sahih al-Bukhari* Book 39, Hadith 513)

“If the Resurrection were established upon one of you while he has in his hand a sapling, then let him plant it.” (*Musnad Ahmad Hadith*, 12491)

““A good deed done to a beast is as good as doing good to a human being; while an act of cruelty to a beast is as bad as an act of cruelty to human beings,” and that: “Kindness to animals was promised by rewards in Life Hereafter.”” (*Mishkat al-Masabih* Book 6, Chapter 7, 8:178)

“Abu Huraira reported Allah’s messenger (peace be upon him) as sayings: “A person suffered from intense thirst while on a journey when he found a well. He climbed down into it and drank (water) and then came out and saw a dog lolling its tongue on account of thirst and eating the moistened earth. The person said: This dog has suffered from thirst as I had suffered from it. He climbed down into the well, filled his shoe with water, then caught it in his mouth until he climbed up and made the dog drink it. So Allah appreciated this act of his and pardoned him.” Then (the companions around him) said: “Allah’s messenger, is there for us a reward even for (serving) such animals?” He said:

“Yes, there is a reward for service to every living animal.” (*Sahih Muslim*, Book 26, Hadith 5577)

From the hadith, *Sahih Muslim* Book 26, Hadith 5577, it is shown that God considers the deed that a Muslim does despite providing benefit to an animal that he or she is prohibited to hold and eat. Prophet Muhammad also showed his concerns towards the environment by creating protected lands called hima and haram. Hima refers to the wildlife and forestry areas which protect certain flora and fauna species. This is the area where activities such as grazing and woodcutting are restricted (Shaikh, 2018). Haram is the area around wells and water sources, where the groundwater table is preserved from over-pumping. Both of these are still being used today.

Islam also teaches its followers to avoid excessive waste. Muslims are allowed to produce and consume based on their necessity of life. Any exploitation act that creates wastage due to greed is condemned. In addition, Islam promotes the equitable distribution of resources. According to Oxfam International (2019), one in eight people in the world goes to bed on an empty stomach. As an obedient steward, Muslims should change these circumstances. The Quran and Hadith stress the prevention of wastage by stating the following:

“And He it is who causes gardens to grow, [both] trellised and untrellised, and palm trees and crops of different [kinds of] food and olives and pomegranates, similar and dissimilar. Eat of [each of] its fruit when it yields and gives its due [zakah] on the day of its harvest. And be not excessive. Indeed, He does not like those who commit excess.” (Quran 6:141)

“Narrated Abu Huraira: The Prophet said, “There are three types of people whom Allah will neither talk to nor look at, on the Day of Resurrection. (They are): 1. A man who takes an oath falsely that he has been offered for his goods so much more than what he is given, 2. a man who takes a false oath after the ‘Asr prayer in order to grab a Muslim’s property, and 3. a man who with-holds his superfluous water. Allah will say to him, “Today I will with-hold My Grace from you as you with-held the superfluity of what you had not created.”” (*Sahih al-Bukhari* Book 40, Hadith 557)

A fundamental principle in Islam displays great respect for nature and Earth and humans are considered a part of the natural communities and have no authority to corrupt the land (Aung, 2017). Muslims’ efforts in protecting nature symbolises their gratitude and submission to God’s will as well as respecting the communities in which they live. Therefore, Islamic environmental ethics can increase the commitment toward, and encourage positive action to, responsible co-existence with the environment (Shaikh, 2018).

4.2 Buddhism

Buddhism is commonly viewed as one of the religions most concerned with environmental issues (Aung, 2017), where Buddhism not only promotes love and purity but also guides its followers to live in a world of peace and harmony (Aung, 2017). *Pañca Sīla* or The Five Precepts being among the influential teachings among its followers prohibit five actions that can bring harm to oneself and his or her relationship with the surrounding environment. The Five Precepts are:

- 1 *Pāṇātipātā veramaṇī, sikkhāpadaṇ samādiyāmi*

“I undertake to observe the precept to abstain from killing living beings.”

2 *Adinnādānā veramaṇī, sikkhāpadaṃ samādiyāmi*

“I undertake to observe the precept to abstain from taking what is not given.”

3 *Kāmesu micchācārā veramaṇī, sikkhāpadaṃ samādiyāmi*

“I undertake to observe the precept to abstain from sexual misconduct.”

4 *Musāvādā veramaṇī, sikkhāpadaṃ samādiyāmi*

“I undertake to observe the precept to abstain from false speech.”

5 *Surāmeraya majja pamādaṭṭhānā, sikkhāpadaṃ samādiyāmi*

“I undertake to observe the precept to abstain from intoxicating drinks and drugs causing heedlessness” (Dahlke et al., 2008).

These general rules are intended to develop respect for the sanctity of all living beings, the rights of ownership, established relationships, truthfulness and mental health. The first precept, to prohibit Buddhists from killing living beings, shows the necessity to avoid anthropocentrism. All life is interrelated, and humans are an essential part of nature in Buddhism, where if nature is harmed, then humanity will also be agonised (Aung, 2017). Furthermore, there are some quotes from one of Buddhism’s most pertinent scriptures, the Dhammapada, that emphasise compassion towards living beings:

“All tremble at violence, all fear death. Comparing oneself with others one should neither kill nor cause to kill.” (Vivekānanda, 2018)

“Him I called indeed a Brahman who withholds the rod of punishment from other creatures, whether feeble or strong and does not kill nor cause slaughter. Him I call indeed a Brahman who is tolerant with intolerant, mild among the violent, and free from the greedy.” (Aung, 2017)

The protection of the environment is not only limited to the first precept but also emphasised in the second precept: prohibiting taking what is not given. This precept also includes abstention of embezzlement of public goods such as trees and damaging healthy environment (Vivekānanda, 2018). H.H. Dalai Lama also emphasises the responsibility of protecting the Earth for the future: “The key thing is the sense of universal responsibility; that is the real source of strength, the real source of happiness. If our generation exploits everything available – the trees, the water, and the minerals – without any care for the coming generations or the future, then we are at fault, aren’t we?” [Moore and Nelson, (2010), p.15].

The fourth precept, to abstain from false speech, encourages truth and transparency when conducting scientific research and concerns that deployment of potential climate engineering measures must be based on facts and reality (Vivekānanda, 2018).

Withholding the principle of Karma, or the law of cause and effect, Buddhists believe that they will experience the effects of what they have done. The destruction of the environment is the drive from the feeling of greed, hatred and delusions as explained in the following:

“Greed is a tendency of wanting more, grasping and clinging. Then anger and hatred. Because when there is more and more greed, you want more but can’t get more, you get angry. And that is why people and countries fight in the war

because of greed. When they go to war, they fight, and the other party is suppressed, and it can arouse hatred. This is what we are living in. The problem of the world now is, all these problems arise from delusions, because we don't understand the true nature of life. We think everything is permanent. Nothing is permanent. Although we like to see everything perfect in this world, nothing is really perfect" (Participant 2)

As the problems of greed, hatred and delusion come from the mind, Buddhism teaches its followers to develop the mind by instilling the practice of loving-kindness and compassion in one's character. Loving-kindness and compassion, which are similar to the western concept of altruism, promote a selfless concern towards the well-being of others. Buddhism teaches that humanity is not the master of other living things and has no right to exploit nature in accordance to greed, as well as to go against the concept of materialism and utilitarianism (Aung, 2017).

The importance of nature and environment is not only shown in Buddhist teachings, but also shown in the stories of eminent idols or preachers of Buddhism. Buddha himself spent most of his life in the forest and achieved his meaningful momentum near the forest. Buddha experienced two important stages of his life; the birth and the enlightenment under two different trees. It is believed that Gautama Buddha was born under an Ashoka tree in Lumbini forest and gained his enlightenment under a Bodhi tree. Buddha also taught wisdom meditation to his disciples by emphasising the benefit of the environment in the meditation process:

"Here a Bhikkhu, gone to the forest or to the root of a tree or an empty hut, sits down; having folded his legs crosswise, set his body erect, and established mindfulness in front of him, ever mindful he breathes in, mindful he breathes out." (Vimalaramsi, 1996)

As well, Emperor Ashoka, during his reign, banned animal sacrifices, castration or branding and forbade hunting animals as sport in his capital city, especially for rituals and on holy days. During this period, blood sacrifices were changed into symbolic offerings, such as vegetables and fruits (Vivekānanda, 2018). He also introduced the system of planting trees as explained in the following:

"And he introduces the system of planting trees, because, at that time, there were no cars, so people walked. And he said that there must be shade. So big trees are planted along the highway where people will travel, so they can get shade. There are also some of the fruit trees like mango trees. If you go to India now, there are many places you can see that the roads are lined by trees. Not only that, but he also tells them that they must dig well so that when people walk, they can also drink the water." (Participant 2)

Through the teaching of love, compassion and kindness, Buddhism guides its followers to protect and promote peace and security among all living creatures (Kaza, 2005). Buddhism believes that the inter-relation between humans and nature is strong, in which the well-being of one party may have a significant impact on another (Aung, 2017).

4.3 Christianity

The relationship between Christianity and the environment has been debated from different views and perspectives. To a certain extent, there are conflicting views describing Christianity as both ecologically harmful and as ecologically responsible (Gottlieb, 2010). The debates stems from a verse in the Bible which states the following:

“God blessed them and said to them, ‘Be fruitful and increase in number; fill the earth and subdue it. Rule over the fish in the sea and the birds in the sky and over every living creature that moves on the ground.’” (Genesis 1:28)

The first view argues that Christianity is being anthropocentric by giving humans the dominance over other living and non-living creatures (Gottlieb, 2010). White (1967, p.53), stated in his book that “To a Christian a tree can be no more than a physical fact. The whole concept of the sacred nature is alien to Christianity and to ethos of the West”. This view claims that humanity is God’s favourite and humans are assigned a superior position over other creations (Aung, 2017), and that humans are given a license to plunder and exploit the environment as they please. This standpoint reflects the hierarchical order of nature where God is at the apex followed by humans and below them, are other creatures that have to serve the superior (Aung, 2017). In this case, the earlier Christians translated ‘rule over’ as destructive domination (Lee, 2004). Plotinus, Thomas Aquinas, St. Bonaventure and Dante Alighieri were among the early Christians theologians who supported this perspective (Gottlieb, 2010).

However, the supporters of ‘Christianity as ecologically responsible’ argued that the former view was unacceptable. The term ‘rule over’ in Genesis 1:28 meant that a human was a steward or caretaker of the environment (Aung, 2017). A human does not have a special position or sovereignty over God’s other creations. The Bible provides no passage that promotes humans as superior nor as those who can easily exploit or misuse nature (Aung, 2017). God did not create the Earth and its population and pass it to humans to exploit and destroy (Lee, 2004). Participant 3 also agreed by stating the following:

“First is, of course, the Genesis verse that says, God, when he appointed man to dominate over the Earth, which actually some people mistake it as you can do what you like with the Earth, but no. The correct interpretation is you have to take care of the Earth...”

There is also a concept in Christianity that states that humans do not own anything on Earth and is mentioned in the Bible:

“Naked, I come from my mother’s room naked I shall return” (Job 1:21)

This verse shows that humans were created to take care of the Earth and everything in it and not exploit it as if owned by them. Humans are given the responsibility to use natural resources wisely and not be driven by greed. This is further explained by Participant 3:

“The time that you have on this Earth, what you do and all that, is actually, everything that you have doesn’t belong to you. God just allows you to use it and to take care of whatever is on the Earth.”

In addition, Christians also believe in eschatology, which states that the Earth will be destroyed and replaced by a new heaven and a new Earth as stated in the following Biblical verses:

“By the same word the present heavens and earth are reserved for fire, being kept for the day of judgment and destruction of the ungodly. But do not forget this one thing, dear friends: With the Lord, a day is like a thousand years, and a thousand years are like a day. The Lord is not slow in keeping his promise, as some understand slowness. Instead, he is patient with you, not wanting anyone to perish, but everyone to come to repentance. But the day of the Lord will come like a thief. The heavens will disappear with a roar; the elements will be destroyed by fire, and the earth and everything done in it will be laid bare. Since everything will be destroyed in this way, what kind of people ought you

to be? You ought to live holy and godly lives. As you look forward to the day of God and speed its coming. That day will bring about the destruction of the heavens by fire, and the elements will melt in the heat. But in keeping with his promise, we are looking forward to a new heaven and a new earth, where righteousness dwells.” (2 Peter 3:7–13)

There is also a theological dilemma where some Christians neglect to sustain the environment since they feel that there is no need to preserve things that will be destroyed by God and replaced with new ones. Rather than acting on environmentalism, these groups focus on evangelism (Lee, 2013). However, this point of view is not acceptable. For instance, death is certain, yet one needs to take proper care of his or her self despite knowing that one day he or she will pass away. The same logic applies to the Earth. Besides, new heaven and new Earth are recreated, and is not a new creation of God (Lee, 2013). Humans will also be judged for all their activities to other creations as stated in the Bible:

“The nations were angry, and your wrath has come. The time has come for judging the dead, and for rewarding your servants the prophets and your people who revere your name, both great and small – and for destroying those who destroy the earth.” (Revelation 11:18)

This verse emphasises that in Christianity, God condemns those who destroy the Earth, including its population. This verse proves the inaccurate view of eschatology that drives some Christians to focus on saving souls while neglecting to take care of the Earth (Lee, 2013). The righteous Christians will care for other creations despite knowing that the judgement day will come because they know that every deed is accounted for, and they will be asked of their responsibilities by God (Lee, 2013). This is also mentioned by Participant 3:

“We see God as a loving, heavenly father, so when he gives you a gift, like your father gives you something good, you won’t simply take it away and trash it or destroy. You’ll take good care of it because you know it’s something good that your father has given to you.”

Although this issue has been debated for decades, this study supports the argument that Christians are responsible for the balance of nature. Having the license to rule is not an excuse for believers to plunder the resources according to their greed. However, being in that position displays that God entrusts humans with the safety and security of the Earth and its population. Christians, as devoted sons and daughters, should treat the environment as a precious gift from a loving father.

4.4 *Hinduism*

Hinduism, being one of the oldest religions, encourages its devotees, the Hindus, to live a simple life and enjoy spiritual happiness. From spiritual happiness, people can achieve a sense of satisfaction and fulfilment rather than chase material greed that eventually interrupts the balance of nature (Aung, 2017). In Hindu teaching, only God has the highest order and all other living and non-living creatures are equal. Hinduism instils the principle of sanctity of all lives (Aung, 2017; Dwivedi, 1993). The Divination of God and the unity of the world are expressed in Yajurveda:

“The loving sage beholds that Being, hidden in mystery, wherein the universe comes to have one home; Therein unites and therefrom emanates the whole;

The Omnipresent One pervades souls and matter like warp and weft in created beings.” (Yajurveda 2.8)

As humans do not have dominion over other creatures, inflicting damage to other living creatures without proper justification is prohibited as Hindus believe that all God’s creations are sacred. In Hindu theology, the Supreme Being is incarnated in various forms of animal species and people also may be reborn as animals. This shows that Hinduism puts great respect towards animals and thus sets a solid foundation for the doctrine of non-violence against others (Dwivedi, 1993). The non-violence principle is expressed in Visnu Purana:

“God, Kesava, is pleased with a person who does not harm or destroy other non-speaking creatures or animals.” (Visnu Purana 3, 8, 15).

The protection of nature in Hindu theology is not limited to humans and animals, but also to flora. In the early days, worshipping a tree was very popular as the tree was regarded as having divine powers due to its healing properties. Planting trees is a religious duty for Hindus (Dwivedi, 1993). The order to protect and not bring harm to the environment has also been stressed in Yajurveda:

“Do not disturb the sky and do not poison the atmosphere.” (Yajurveda 5.43)

“Do not poison (pollute) water and do not harm or cut the trees.” (Yajurveda 6.33)

“No persons should kill animals helpful to all.” (Yajurveda 13.37)

“O King you should never kill animals like bullocks useful in agriculture or like cows which gives us milk and all other helpful animals and must punish those who kill or do harm to such animals.” (Yajurveda 13.49)

“The oceans are treasure of wealth protect them.” (Yajurveda 38.22)

In Hinduism, there are five important elements which are Earth, water, fire, air, and atmosphere or space. The importance of these elements is described in Vamana Purana:

“Let all the great elements bless the dawning day; Earth with its smell, water with its taste, fire with its radiance, air with its touch, and sky with its sound” (Vamana Purana 12:26)

These concepts of five elements of nature are also used in rituals as explained by Participant 4:

“The whole temple functions with the help of these five elements. For example, if we say ‘Om Maha Mariamman Namaha’, these five elements help our body organs such as the hands, nose, mouth and eyes to perform tasks like say mantra, breath, hear, eyes to see and hands to ring the bell or show theepaarathanai (light) to God. So, all these five elements are continuously working in our body.”

Each element plays its role in Hindu theology. For instance, Gods, such as Amman and Shiva, are present near rivers and when the water levels rise, the power of Amman also increases. Water is also an important element in rituals. During the ritual of Homam Pooja, the holy water inside the Kumbam is prepared using water and other herbs and fragrances and the water is offered to God as well as distributed to the devotees. In addition, Hindus take care of the air as people and other living creatures need it to breathe. Certain mantras, such as ‘Om Maha Mariamman Namaha’, use the air to transfer

the sound into the mind and make it calm. The mantras are also used to purify and cleanse the surrounding air from toxicity and pollution.

Pollution of the environment is condemned in Hindu teachings. Pollution will prevent Hindus from maintaining cleanliness in rituals, and thus it is an obligation for Hindus to prevent pollution and instead support corporate social responsibility. In this context, pollution is not just limited to greenhouse gases and emissions of harmful substances to the environment, but also to dead animals, people's faeces and blood (Abbas and Jalaluddin, 2016). In Hinduism, environmental consciousness is seen in many aspects from religious texts to ritual activities, and it is agreed that destroying nature is an act of blasphemy (Aung, 2017).

4.5 Channel to promote pro-environmental behaviour using religion as a basis

Based on the findings from the four major religions in Malaysia, it has been shown that each religion teaches its believers to be responsible stewards and take good care of the Earth. As most people believe in God and adopt religious teachings, religion should be a main base to influence pro-environmental behaviour. Governments, institutions and non-governmental organisations should acknowledge the important role of religion in environmental ethics (Aung, 2017). Religious education, for example, is important, not only to students, but also to educators, as they are the ones who demonstrate their understanding of, and commitment to, religious values and norms for the next generation (Ntho-Ntho and Nieuwenhuis, 2016). Therefore, these educators need to have proper training before they can teach their students. A study by Rashi and McCombs (2018) showed the influence of media towards religious agenda. In the study, the Chabad community organised a Jewish educational and social service program which included education, assistance for children with special needs, drug and alcohol rehabilitation among other concerns. With the help of the media, the community did not just gain coverage and hold a successful program, but it also raised millions of dollars for their cause. This shows that with the collaboration of conventional medium and traditional teaching, a cause to influence the people can be successful.

5 Conclusions

Religion has the capacity to instil, through one's faith, the obligation to protect the Earth from destruction, since negligence in protecting the environment reciprocates as climate changes and this falls heavily on humans. Therefore, using religion as a medium to promote pro-environmental behaviour can be extremely instrumental. Past studies have investigated other means to promote pro-environmental behaviour; however, a lack of attention was given to religion as a potential means to fill this gap, this study employed a case study approach to investigate how religion could influence pro-environmental behaviour and determined potential channels to promote pro-environmental behaviour using religion as the basis.

The study found that generally, Islam, Buddhism, Christianity and Hinduism did not encourage the mismanagement of the environment. Each religion highlighted in this study entrusted its devotees to take good care of the environment and live as sustainable communities. However, greed has led humans to neglect the teachings of their faith and instead exploit the environment. Religious teachings are not strictly for certain followers

or certain regions; it encompasses all devotees across the world. Humans lead the future; therefore, they should have a sense of responsibility as they are the caretakers of the Earth.

An inter-medium approach between religion and other conventional media should be used as a means to guide populations toward environmentally positive behaviours. Parties, such as governments and schools, should acknowledge the importance of religion in educating future generations towards environment protection. The education system should be used as an important way to promote pro-environmental behaviour via religion. Additionally, environmental clubs and societies in schools and universities need to engage with religious leaders to incorporate the element of religion into their activities in order to nurture pro-environmental behaviour.

Likewise, governments, institutions such as national parks, and non-governmental organisations such as World Wildlife Fund (WWF), should collaborate with religious institutions in setting pro-environmental agendas through inter-religious educational programs. Additionally, global organisations, such as the United Nations, should implement policies and strategies, not only through conventional means, but also through traditional means, such as religion. Besides pushing countries to accelerate their pro-climate actions, concurrently, the organisations mentioned earlier, should implement strategies to shape the behaviour of people in this world to be more pro-environmental. The United Nations should collaborate with religious leaders and religious institutions to develop policies and strategies that encourage pro-environmental behaviour and at the same time meet the objectives of the Paris Agreement and Sustainable Development Goals. Most importantly, governments and global organisations need to innovatively use media to promote pro-environmental behaviour from religious aspects. The aim to limit the rise of the global average temperature is only one aspect: having a community or generation that can maintain positive climate action is another angle that needs to be pursued.

The findings of this study may have been influenced by several limitations, such as observer error and observer bias since the study was heavily dependent on data from the interviews. However, these limitations were countered by frequently crosschecking the findings with other experts within each religion.

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