

ISLAMIC PERSPECTIVES ON ENVIRONMENTAL CONSERVATION AND GOVERNMENT POLICIES ON MITIGATING THE NATURAL DISASTER IN INDONESIA

Dedisyah Putra* & Zuhdi Hasibuan

Sekolah Tinggi Agama Islam Negeri Mandailing Natal
Jl. Prof. Dr. Andi Hakim Nasution, Panyabungan, Mandailing Natal
e-mail: dedisyahputra@stain-madina.ac.id, zuhdihhasibuan90@gmail.com

Sabrun Edi

Universiti Kebangsaan Malaysia
Jl. Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia
e-mail: ediskd55@gmail.com

Abstract: This article will find policy considerations in disaster mitigation planning by looking at disasters that have occurred before and Islam contributes to caring for the environment before, during and after disasters. This research uses a qualitative approach with a literature study method. Data were obtained from secondary sources to explore conceptual and comparative perspectives. The results of this study are three, namely; Islamic teachings in the Qur'an and Hadith show guidelines for humans to preserve nature to prevent natural disasters early on. Government policy also plays an important role in preventing all possibilities that have the potential to trigger natural disasters. Finally, two factors, namely Islamic teachings and government policies in terms of preventing disasters, must create the prevention of natural disasters.

Abstrak: Artikel ini akan menemukan pertimbangan kebijakan dalam perencanaan mitigasi bencana dengan melihat bencana-bencana yang telah terjadi sebelumnya dan Islam berkontribusi dalam merawat lingkungan sebelum terjadi bencana, saat dan setelah kejadian. Penelitian ini menggunakan pendekatan kualitatif dengan metode studi pustaka. Data diperoleh dari sumber kedua untuk menggali perspektif secara konseptual dan komparatif. Hasil dari penelitian ini ada tiga, yaitu; Ajaran Islam dalam Al-Qur'an dan Hadits menunjukkan pedoman bagi manusia untuk menjaga kelestarian alam mencegah bencana alam sejak dini. Kebijakan pemerintah juga berperan penting mencegah segala kemungkinan yang berpotensi memicu bencana alam. Terakhir, dua faktor yaitu ajaran Islam dan kebijakan pemerintah dalam hal mencegah bencana harus terciptanya pencegahan bencana alam.

Keywords: Environment, Conservation, Islam, Indonesian policy, Mitigating

*Corresponding Author

Introduction

Indonesia is a very large country with an area of 1.905 million km² and a 273,8 million population consisting of various ethnicities, cultures, and beliefs. In addition, it consists of thousands of islands and it also is rich having a great number of human and natural resources. However, a vast number of threats are ready to hit it Asia, including (Indonesia) such as tsunami, earthquakes, volcano eruptions, forest fires, floods, cyclones.¹ Those are caused by natural factors, unlicensed development, environmental pollution, illegal exploitation by human, and the like. Natural disasters and human error caused disasters have a serious and dangerous impact on society and the environment. In addition, the Indonesian natural resources also unexpectedly trigger some perilous issues such as unsustainable utilization, illegal mining, deforestation, and other natural destructions significantly stimulate a long-term negative effect on the society and surrounding ecosystem.²

Moreover, Indonesia is also in the position of being dangerously threatened by the storm and typhoon, notably around the area of the seashore. Natural disaster destructs either physical things (infrastructures and environments) or social and psychological loss. Disaster victims always suffer heavy trauma, losing wealth and jobs. Nonetheless, Disaster recovery needs strong cooperation, synergy, and great effort from the government, organizations, and the public. In the improvement of facing natural disasters, Indonesia gradually increases the quality of mitigation measures, responses, and recovery.

Acts number 24 the year of 2007 disaster mitigation defines a disaster as a serial threatening occurrence by the factors of nature, non-nature, and humans which potentially lead to casualties, environmental destruction, wealth loss, and psychological effects.³ To reach the objective of the impact of disaster mitigation, there are some early measures needed. It calls for the hard work of the government from the central government to the local government level and cooperation with the disaster-affected community. This effort is to minimize the worse impact of disaster and it is combined with the developmental program. The decrease of disaster effects is done when the disaster does not come yet. People's losses are reduced through the development of the central and regional governments.

The government arranges the plan of disaster mitigation by several steps namely initiative, commitment, identification of risk disaster, behavior control, working distribution,

¹ E. Y.Y. Chan, A. Y.T. Man, and H. C.Y. Lam, "Scientific Evidence on Natural Disasters and Health Emergency and Disaster Risk Management in Asian Rural-Based Area," *British Medical Bulletin* 129, no. 1 (2019): 53–67, <https://doi.org/10.1093/bmb/ldz002>.

² R Yusuf et al., "Environmental Education: A Correlational Study among Environmental Literacy, Disaster Knowledge, Environmental Sensitivity, and Clean-Living Behavior of ...," *Polish Journal of Environmental ...*, 2021.

³ Daud Silalahi, *Hukum Lingkungan Dalam Sistem Penegakan Hukum Lingkungan Indonesia*, 2019.

and determining the domain of the authority and available resources. In planning, it is important to supervise and revise the program to achieve the expected result and at the same time to minimize errors during the implementation. However, at the local level, the spirit of disaster mitigation in terms of early warning and pre-disaster mitigation is not well-paid attention to. This condition has been shown during disaster of tsunami in Aceh. Hence, it is urgently needed a particular concern and improvement which emphasizes the planning for regional development as a priority for disaster mitigation. To succeed, it requires a sufficient budget to fund disaster mitigation, and also involve all parties during the process of planning, implementation, and monitoring the programs of disaster mitigation to achieve the standard and expected objective.

In the Islamic perspective, conserving and protecting the nature and environment have a vast deal. Islamic religion teaches its followers to become a *caliphate* (manager) of the earth and is responsible to care for, utilize, maintain, and protect everything on it. Some Islamic principles dealing with environmental conservation is '*tawhid*' namely a concept of the oneness of God in Islam that teaches humankind that all universes are created by Allah, and human as Allah's slave and creature has a responsibility to conserve and take care of it. The next Islamic concept is *Amanah*, this concept reveals that Allah gives trust to humans to conserve and benefit the earth. To realize it, human is expected to be accountable and fair.

Next concept is *Balance* and *Muroqobah*. It is a concept in Islam that teaches the importance of keeping the balance in the relationship between humans, nature, and God. Humans must have awareness and *muroqobah* (self-monitoring) on what they have done and the impacts on nature. *Prohibition for destruction*: Islam forbids the eradication or removal of certain things of nature and living creatures. Islam forbids people from destructing nature, taking more than needed, and behaving wastefully. *Wisdom and justice*: Islam pushes its followers to behave wisely and justly to manage and utilize natural resources. The use of natural resources must be wise, based on need, and not harm the public interest. *The prohibition of extravagance*: Islam teaches people to not be extravagant in using natural resources. The extravagance is considered an irresponsible deed and harms the environment and generations to come. *Hima* (forbidden land); this concept exists in Islamic teachings containing the management and protection of certain lands that have biodiversity and important ecology function. Those lands are guarded and forbidden to utilize due to realizing the natural conservation and ecosystem balance.

Islam emphasizes to its followers that conserving and protecting the nature and environment are considered important responsibilities. Allah the al-Mighty created humans as a caliphate on the surface of the earth with a specific task namely to manage, utilize and protect the nature and environment on earth fully responsible. Humans are given a trust (*amanah*) to ensure natural and environmental sustainability and certainly also inherit it to the next generation. Islam teaches the importance of keeping balance and orderliness on earth. People are prohibited from destructing or disturbing the natural ecosystem that is well-set and ordered by Allah. It is a critical principle in Islam to keep the balance among

humans, nature, and other living creatures on earth.

Islam drives its followers to behave wisely and fair during interactions to nature. The use of natural resources must be wise, not excessive, and not harm the public. Wasteful and behavior of extravagance in using natural resources are strongly prohibited in Islam. Allah al-Mighty has said in the Qur'an (Surah al-A'raf verse 7:31): "Eat and drink and waste not by extravagance, certainly He (Allah) likes not those who waste by extravagance". The Qur'an implies that wasting natural resources is irresponsible action and harms nature and human beings.⁴

There is a fascinating thing to investigate between Islamic teachings with its religious perspective and government policies. It triggered the author to do this study. A number of previous studies had been done with same topic but different angle from this current one. A study done focusing on sustainable disaster mitigation with specific discussion about risk perception, trust in public institution, and disaster insurance.⁵ Moreover, evidences is necessary for minimizing risk of health post-disaster notably among rural population.⁶

A study about disaster discovered challenges and priorities for disaster risk reduction of historic urban area.⁷ Furthermore, in doing a study about natural disaster, two things are significantly matter namely census data and remote-sensing data yielded on social media.⁸ Other study also discovered the significance of community participation in disaster mitigation.⁹ The last, a study revealed the relationship between disaster, build environment, and capitalism in modern cities, and how cities and everything in it live side by side with the condition hit by natural disaster and how it contributed to the development.¹⁰

The main gap between predecessor studies with this current study is in the aspect of angle of research. The previous ones discovered about sustainable disaster mitigation,

⁴ Abu Muhammad al-Husain bin Mas'ud al-Farra' Al-Baghawi, *Mukhtashar Tafsir Al-Baghawi* (Mesir: Dar al-Ma'rifah, 2005).

⁵ Li Peng et al., "Understanding Sustainable Disaster Mitigation of Stakeholder Engagement: Risk Perception, Trust in Public Institutions, and Disaster Insurance," *Sustainable Development* 27, no. 5 (2019): 885–97, <https://doi.org/10.1002/sd.1948>.

⁶ Chan, Man, and Lam, "Scientific Evidence on Natural Disasters and Health Emergency and Disaster Risk Management in Asian Rural-Based Area."

⁷ Rohit Jigyasu, "Reducing Disaster Risks to Urban Cultural Heritage: Global Challenges and Opportunities," *Journal of Heritage Management* 1, no. 1 (2016): 59–67, <https://doi.org/10.1177/2455929616649476>.

⁸ Zheyue Wang and Xinyue Ye, "Social Media Analytics for Natural Disaster Management," *International Journal of Geographical Information Science* 32, no. 1 (2018): 49–72, <https://doi.org/10.1080/13658816.2017.1367003>.

⁹ Joko Pramono et al., "The Community Participation in Disaster Mitigation to Managing the Impact of Natural Disasters in Indonesia," *Talent Development & Excellence* 12, no. 2s (2396): 2396–2403, <http://www.iratde.com>.

¹⁰ Albert S. Fu, "Connecting Urban and Environmental Catastrophe: Linking Natural Disaster, the Built Environment, and Capitalism," *Environmental Sociology* 2, no. 4 (2016): 365–74, <https://doi.org/10.1080/23251042.2016.1220891>.

evidences for health risk reduction, the importance of hazard risk minimizing in the area of historic city, the importance of data spreading on social media analytics, and the effect of disaster on development. Whereas this current study attempted to reveal the viewpoints of Islamic teachings and Indonesian government policies to tackle down all potential risk of natural disasters. The novelty obviously is how religion and authority policies view the solution to prevent the natural disaster.

Eventually, background of the study about government policies and Islamic perspectives to mitigate the natural disaster in Indonesia is the main focus of this study. It generates two research questions as the core of this study namely; (1) how Islamic teachings mitigate the natural disaster? (2) How the government policies tackle down the natural disaster in Indonesia. (3) How to compromise between Islamic teachings and Government policy to succeed the mitigating natural disaster? Those three research questions had driven this article in to new angle of perspective toward mitigating the natural disaster in Indonesia.

Methodology

This study discussed about the mitigation on natural disaster in Indonesia is an effort to discover the perspective of Islamic teachings and the approach taken by the government policies on mitigating the natural disaster among Indonesian society. This is also an attempt to compromise of two viewpoints on how to appropriately give response on natural disaster since early time.

This study employed a qualitative descriptive approach with library research method. In applying the library research method, data collection was conducted by obtaining secondary data for obtaining conceptual and comparative perspective. The particular characteristics of library research in this study are based on displayed/yielded data or texts, not by field data. In the other hand, the researcher obtained the data from library or invented data that could be accessed from books, dictionary, journals, magazine, newspaper, etc.¹¹ Moreover, a library research project allows the author to analyze volumes, comments, journals, and other work related to the topic under consideration.¹²

The stages of research process were executed as follows: (1) decide the topic to be yielded. (2) Gather the text, information, journals, verses of the Qur'an and hadith closely linked to the topic. (3) Gather acts, regulations, and policies issued by the

¹¹ Fatha Pringgar and Bambang Sujatmiko, "Penelitian Kepustakaan (Library Research) Modul Pembelajaran Berbasis Augmented Reality Pada Pembelajaran Siswa," *Jurnal IT-EDU* 05, no. 01 (2020): 317–29, <https://ejournal.unesa.ac.id/index.php/it-edu/article/view/37489>.

¹² Zamakhsyari Hasballah Thaib, "Qur'anic Perspectives on Caring for the Elderly," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 45, no. 1 (2021): 1, <https://doi.org/10.30821/miqot.v45i1.759>.

government which are related to the topic. (4) Carefully analyzing the data. (5) Presenting and discussing the data analyzed based on separated themes. (6) Compromise two different perspectives. (6) Drawing a conclusion.

Results and Discussion

1. Islamic Teachings on Mitigating the Natural Disaster in Indonesia

In the recent era, religious transforms into an essential phenomenon and attractive. It lead everyone in the public sphere to understand and apply its teachings, in this context, Islamic religion. Religion affects its adherents for knowledge, culture, place, practice, and behavior in social life.¹³ As moderate adherents of Islam, moderate behavior is a matter to posses.¹⁴ In the everyday life, one of behavior prioritizes on nature is also matter as moderate followers of Islam. The behavior itself in Islam it is called *Akhlaq*.

Dealing with the nature conservation and preventive habit in Islamic teachings, it unavoidably is related to an individual's *akhlaq*. Terms *khuluq* or *akhlaq* is a condition or character that is integrated into a person's personality. From this point of view, various spontaneous responses and actions arise without thinking. *Akhlaq* can be formulated as a knowledge that teaches people to behave well and prevent them to do evil deeds concerning the relationship between God, humans, and the environment. Another term for *akhlaq* is moral. Moral is derived from English language words namely 'moral', Latin language 'mores', and Dutch language 'moural' that refer to character, norm, and customary. Moral also means something related to the good and bad of a human character. *Akhlaq* here plays a significant role to affect an individual to conserve and sustain the surrounding natural environment.

The natural environment is an integral part of human life that is a must to consider as a component of the respected, protected, and conserved ecosystem. The environment has intrinsic values. The existence of intrinsic values will navigate the behavior of people and affect the surrounding environment. Positive action will be able to ensure the environmental conservation meanwhile the negative action will destruct it. This integrity pushes humans to be responsible when interacting with the surrounding nature. The environmental damage is caused by the anthropocentric perspective of people who assume that human is the center of the universe. In this perspective, nature and the environment will be assumed to be the object to exploit for fulfilling the needs of humans on earth.

¹³ Kunawi Basyir, "The Relations of Religion and Ethnicity of Urban Communities in Surabaya," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 44, no. 1 (2020), <http://jurnalmiqotojs.uinsu.ac.id/index.php/jurnalmiqot/article/view/717>; Muh Idris, "Azyumardi Azra'S Thought on Multicultural Education," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 44, no. 1 (2020): 52, <https://doi.org/10.30821/miqot.v44i1.739>.

¹⁴ Muhammad Syahrial Razali Ibrahim, "MODERATE ISLAM REVISITS: A Lesson from T.M. Hasbi Ash-Shiddieqy's Interpretation of Wasathiyah in Tafsir An-Nuur," *Journal of Contemporary Islam and Muslim Societies* 6, no. 1 (2022): 1–29, <https://doi.org/10.30821/jcims.v6i1.9058>.

From the Islamic perspective, humans and the environment have a strong relationship. Both are the creatures of Allah. Allah created the universe and its components, including human beings as the integral part of the universe. The balance and harmony of nature is the proof of the dignity and wisdom of Allah al-Mighty. In Islam, human is humans must keep the sustainability of nature by avoiding damage to it and at the same time utilizing the resources provided by nature fully responsible. Consequently, people, notably Muslim, must be a good citizen who protect and conserve the life (including surrounding natures) based on faith to Allah which refusing all kinds of destructions, injustice, and oppression.¹⁵

The continuity of the universe is inseparable from the relationship between humans and the environment. If one of the components is broken, it will lead to a negative effect on another component. For example, if the environment is broken due to illegal logging, water pollution, and also air pollution, these will affect human life, because they affect directly the health and prosperity of people in the world. In Islam, keeping the balance and harmony of nature is categorized as a responsibility as a caliphate of Allah on earth. This point insists humans behave well toward nature and treat all God's creatures respectfully. Therefore, Islam teaches the importance of keeping a harmonious relationship between humans and the environment to realize common sustainability and prosperity.

All changes in nature and the environment are influenced by human behavior. The Qur'an emphasizes that environmental destruction either on land or sea is caused by human deeds. The reason is that human is the main actor who exploits the nature and environment without taking into account natural sustainability and balance. In many cases, the actions of humans in exploiting and utilizing natural resources are not only for the needs of human life, but also are influenced by the factors such as economic desire, power, and uncontrollable desire compliance. Human always prioritizes economic profit and personal power without considering the negative effect on the nature and environment they exploited. Consequently, human destruct the nature and environment through excessive exploitation of natural resources, environmental pollution, habitat damage, and extinction of certain species. This reality threatens the sustainability and balance of nature.

From the Islamic perspective, human has the responsibility to protect and conserve the nature and environment as the role of the caliphate of Allah on planet Earth. Human is in charged to treat nature responsibly, wisely, and respectfully. Human activities on natural and environmental exploration and utilization must be based on the principles of morality and ethic comprising the values of sustainability, justice, and the balance of nature. This is a great trustworthy given by God to human as *khalifah* (caliphate) on earth.

¹⁵ Asrori Mukhtarom, Ety Kurniati, and Desri Arwen, "Pendidikan Kewarganegaraan Dalam Perspektif Al-Quran Di Era Digital," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 4, no. 2 (2023): 1–20, <https://doi.org/10.47783/jurpendigu.v4i2.497>.

According to Quraisy Shihab,¹⁶ the caliphate has three elements that are related to each other and there is a fourth element outside of it, that strongly determines the meaning of the caliphate from the viewpoint of The Qur'an. The first three elements are as follows:

1. Human, in this context, is acting as the caliphate. Human as a caliphate has a role and responsibility to be manager or representative of Allah on earth.
2. The universe, which is stated by Allah as earth. The universe and everything in it such as the environment, flora, fauna, and the ecosystem in it.
3. The relationship between humans and the universe and everything in it, including the relationship between humans and other humans. This relationship involves the tasks of the caliphate or the tasks of management and maintenance of the environment which are given to human beings.

Accordingly, the concept of the caliphate from the perspective of the Qur'an illustrates the strong relationship between humans, the universe, and human responsibility as the manager who is responsible for managing and utilizing the universe and everything in it. The caliphate is not only related to the dimension of individual politics but also related to communal and cosmology as the role of humans as the manager and conserver of the universe.

The transformation of environmental ethics needs a basic change from the cosmology perspective which results from an exploitative attitude toward nature toward the friendly and appreciative perspective of nature. The perspective of cosmology illustrates our understanding of nature, the universe, the human place, and the relationship between humans and nature. If the cosmological perspective is based on nature exploitation where nature is considered as resources to exploit with maximum level for human interest without considering the long-term consequences, then the attitude of it tends to be exploitative.

However, to transform the environmental ethic much better, it needs a fundamental change in our cosmological perspective. The friendly and appreciative perspective of nature acknowledges that nature has intrinsic values that must be respected, protected, and appreciated. Nature is not only an object to be exploited, but it also has diverse values, ecosystem balance, and beauty to be respected and conserved. The transformation in cosmological perspective is expected to trigger a wiser attitude to treat the nature and living environment. The environmental ethic changes our mindset, recognizing the relation between humans and nature, and also respecting and maintaining the sustainability of nature for the sake of human prosperity and the generation to come.

Good understanding of the meaning of '*rabbul 'alamin*' and '*rahmatan lil'alamin*', all Muslims are expected to avoid destructive behaviors toward the environment. This is also in line with the spirit of *Ihsan* where a Muslim efforts to worship God as they see him.¹⁷ This will

¹⁶ M. Quraish, *Membumikan Alquran, Bandung: Mizan, 1994.*

¹⁷ Mohamad Isa Abd Jalil, "Giving in an Islamic Perspective," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 44, no. 1 (2020): 1, <https://doi.org/10.30821/miqot.v44i1.696>.

be relevant when facing and applying the measures of mitigation on natural disaster. On the contrary, they will do everything under the frame of blessing the universe, keeping nature sustainable, and living with nature in balance. With this perspective, the ethic of the environment becomes an integral part of the belief and religious practices of Muslims.¹⁸

Behavior plays a significant role in protecting and conserving the nature and environment. Because, when human's behavior is bad and exploitative, it will not affect the social, economy, politics, culture, and nation, but all aspects. The wider problems are also rising because of bad behavior such as collusion, corruption, nepotism, etc.¹⁹ Therefore, good behavior is a key to make sure the surrounding nature is safely well protected and conserved.

According to Muhammad Idrus, there are three phases in practicing the religion that is becoming principles for environmental ethics in the Islamic perspective:²⁰

First; the phase of ta'abbud (worship). Protecting the environment is considered as the implementation of obedience to Allah because protecting the environment and nature is part of human's responsibility as a caliphate. Even, in the context of *fiqh*, keeping natural and environmental conservation and balance is considered an obligation that is clearly stated in the Qur'an and hadith of the Prophet Muhammad (peace be upon him). According to Ali Yafie, the issue of the environment is classified into chapters of *jinayat* (crime), in consequence, the destruction activities on nature and environment can be fined by a certain sanction or punishment.

Second; the phase of ta'aqquli (rationality). The order to protect the environment logically has an understandable objective. The environment is the place to live all living creatures. The environment has been created by Allah with balance, harmony, and interrelation. When imbalance happens due to nature and environmental destruction done by humans, then disaster inevitably will hit humans and all living creatures that live in it.

Third: phase of takhalluq (inner attitude). Conserving the environment must become the character, and habit of each individual. Natural conservation will be more beautiful when integrated into daily habits and activities. Therefore, the balance and preservation of nature will be existing without law reinforcement and any other external motivation.

By following those three phases, namely *ta'abbud*, *ta'aqquli*, and *takhalluq*, Islamic followers are expected to respect and protect the environment as an integral part of their religious practices. In this view, protecting the environment is not only an individual's task

¹⁸ Sava^o Alpay, Ibrahim Özdemir, and Dilek Demirba^o, "Environment and Islam," *Journal of Economic Cooperation and Development* 34, no. 4 (2013): 1–22.

¹⁹ Syarifah Rahmah and Muhammad Fadhli, "CHARACTER EDUCATION IN ISLAMIC EDUCATION INSTITUTIONS: A Study on the Impact of Lecturer Competence at IAIN Lhokseumawe," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 45, no. 1 (2021): 87, <https://doi.org/10.30821/miqot.v45i1.771>.

²⁰ Muhammad Idrus, *Islam Dan Etika Lingkungan*, Wordpress, 2015.

but also a common responsibility to achieve balance and conservation of nature which is given by Allah.

These following principles can be guidance and instruction for humans to behave and interact with nature, either by direct behavior toward nature or behavior toward other humans that have an impact on nature.

1. Respect for nature

Respecting nature is a primary principle that insists humans as an integral part of the universe to acknowledge the values of life, just like within the social community, each individual has the responsibility to respect the common lifestyle and keep social harmony.

2. Moral Responsibility For Nature

Moral responsibility for nature is a consequence of the principles of respecting nature as mentioned in the previous discussion. As a caliphate or the one who is in charge of earth management and utilization where human ontologically is an integral part of nature. Consequently, human has a vast responsibility to the universe for making sure the existence and preservation of the nature and environment. Each element and entity in the universe is created by God for a reason and a certain objective, despite whether the objective is for human beings or not. Therefore, as an integral part of the universe, humans must have responsibility for maintaining and protecting it.²¹

3. Cosmic Solidarity

The principle of solidarity is the relevant principle with the two moral principles before. As those two principles, the principle of solidarity appears because human is an integral part of the universe. Moreover, in the perspective of eco-feminism, human is given an equal position with nature and all living creatures in it, This awareness stimulates the feeling of solidarity within human namely a feeling of unity and responsible each other for nature and other living creatures.²²

4. The Principle of Affection and Caring for Nature

As an ecological community member, human is triggered to have love, and affection, and will conservation to the universe and living creatures in it without dominance and discrimination. Affection and care arise when human realizes that as an ecological community, each living creature has a right to be protected, guarded, cared for, and not harmed.²³

²¹ E. Kula, *Islam and Environmental Conservation*, *Environmental Conservation*, vol. 28, 2001, <https://doi.org/10.1017/S0376892901000017>.

²² M. Y. Gada, *Environmental Ethics in Islam: Principles and Perspectives*, *World Journal of Islamic History and Civilization*, vol. 4, 2014, <https://doi.org/10.5829/idosi.wjihc.2014.4.4.443>.

²³ Ali Mohamed Al-Damkhi, "Environmental Ethics in Islam: Principles, Violations, and Future Perspectives," *International Journal of Environmental Studies* 65, no. 1 (2008): 11–31, <https://doi.org/10.1080/00207230701859724>.

The general condition of humans depends on the surrounding nature and environment. The environment provides natural resources for daily needs. Natural resources such as water, air, and soil have a vital role to fulfill human necessities. Therefore, a healthy environment depends on how wealthy and prosperous a human being is and also good environment support. The balance and orderliness between humans and the environment will create a healthy and sustainable environment.

The nature crisis at the recent time is an effect of managing and exploitation of the environment and nature by humans without applying the principles of ethics. This indicates that the ecological crisis that human faces has root in ethical and moral crisis. In this context, the issue of environment and nature is not only restricted to the technical and material domain but also spread into further moral dimensions. When people ignore the values of ethics in the interaction with nature, such as neglecting responsibility, justice, and appreciation of sustainable nature, then the crisis is even worse. Therefore, the solution for the environmental crisis is not sufficient to be handled by only a technical approach, but it needs a transformation of human behavior and awareness based on the ethical principles of the environment based on Islamic teachings.

2. Government Policies on Mitigating the Natural Disaster in Indonesia

Policy integration for disaster mitigation is a process of unifying various policies, programs, and measures to reduce and anticipate the risk of a disaster comprehensively. The following is a paraphrase. Policy integration for disaster mitigation is an effort to combine various policies, programs, and measures to reduce the risk of disaster comprehensively.²⁴ Disaster mitigation by Government policy is a serial measure to do to minimize and avoid the negative impact of a disaster. The main objective of disaster mitigation is to protect human life, reduce material loss, and minimize the social and economic effects.

Policy integration, in the context of disaster mitigation, refers to the effort to synchronize some policies and programs that are related to disaster mitigation within a coordinated framework. Policy integration is promoted to stop the overlapping of policies and programs, maximize the synergy, and make sure effective collaboration among the stakeholders involved in succeeding disaster mitigation.

In addition, this action of government policies needs human development mindset where shifting society to participate and involve themselves directly from planning, implementation, until the process of evaluation. This attempt is a realization of empowering people to take part actively among society and it transform people from

²⁴ Setia Pramana et al., "Air Pollution Changes of Jakarta, Banten, and West Java, Indonesia During the First Month of COVID-19 Pandemic," *Journal of Business, Economics and Environmental Studies* 10, no. 4 (2020): 15–19.

being object of development into subject of development.²⁵ This is relevant to apply to do mitigation on natural disaster in Indonesia.

The policy integration for disaster mitigation involves the coordination work style among the central government, local government, related institutions, social organizations, and private sectors. They are realized through serial steps namely planning, policy development, budgeting, program implementation, monitoring, and evaluation of disaster mitigation comprehensively. By implementing good policy integration, all efforts and resources can be optimized to reduce the risk of disaster effectively.

Natural disaster is also caused by climate change. Regarding this, stakeholders must monitor and map the weather by technology to identify information and condition about past and present which helps for disaster management and mitigation strategies.²⁶

The policy integration the disaster mitigation also entangles an inter-sectors approach where various sectors such as infrastructure, health, education, environment, and others are working together to identify and reduce the disaster, this point guarantees that disaster mitigation is not only handled by one sector or one institution, but it needs the involvement and roles of all parties who have certain role and interest to protect people and environment from the disaster.

By the policy integration for disaster mitigation, it is expected that effective coordination is realized, optimal use of resources, and well directed and integrated program to remove the risk of the disaster. Those points will strengthen the community's resilience and minimize the negative impact of the disaster. Reducing the impact of the disaster is assumed an urgently needed measure to do continuously by an individual, group, community, and society to manage and mitigate all kinds of dangers and disasters. Furthermore, natural disaster also alters population, wealth, and societal change.²⁷

Mitigation is one of which to manage a disaster by involving the preparation in the previous time and an alert to reduce the impact and reduce the possibility of a disaster that threatens the society in a certain location. Furthermore, in mitigation, some measures are also must be applied such as evaluation, rehabilitation, reconstruction, and relevant and needed actions. Therefore, disaster mitigation must be carried out comprehensively by

²⁵ Syamsuri and Okta Yuripta Syafitri, "Maqâshid Syaî'Ah Approach On The Empowerment Of Human Resources In Mulyodadi Village Bantul Yogyakarta," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* XI, no. 2 (2018): 1–367, <https://doi.org/http://dx.doi.org/10.30821/miqot.v42i2.549>.

²⁶ Varsha Pandey, Prashant K. Srivastava, and George P. Petropoulos, "The Contribution of Earth Observation in Disaster Prediction, Management, and Mitigation: A Holistic View," *Techniques for Disaster Risk Management and Mitigation* 4 (2020): 47–62, <https://doi.org/10.1002/9781119359203.ch4>.

²⁷ W. J. Wouter Botzen, Francisco Estrada, and Richard S.J. Tol, "Methodological Issues in Natural Disaster Loss Normalisation Studies," *Environmental Hazards* 20, no. 2 (2021): 112–15, <https://doi.org/10.1080/17477891.2020.1830744>.

involving government and individuals in terms of before, during, and after the disaster hits through relevant and proper management and evaluation to fix the situation. This kind of analysis is purely connected to the aspect of the earth physically which is frequently associated with an analysis of disaster risk.

The principle of living environment has been managed by regulation Number 4 the year of 1982 which mentions the conservation of environmental ability based on harmony and balance to support sustainable development to increase the people's prosperity. The goals of living environment management are as follows; (1) reaching the balance of the relationship between humans and the living environment as the main objective of human development in Indonesia, (2) Managing and controlling the use of resources wisely, (3) Driving the Indonesian people to be the manager of the living environment. (4) Applying the development with the environmental approach for the sake of the recent and upcoming generations, (5) Protecting the country from the uncontrollable activities that affect the damage, contamination, and destruction of the nature and environment.²⁸ Chapter 1 verse (4) of Acts no.4 year of 1982 clearly explains that the ecosystem is a union consisting of all elements of living environments that affect one another comprehensively.²⁹

The living environment in Indonesia covers the living environment inside the territorial border of the Republic of Indonesia. Based on the general explanation of Act no. 4 the year of 1982, revealed that the living environment in the context of the ecology is limitless of the state territory borders or administrative/official territory. Nevertheless, when the living environment is in terms of its management, then the authority of the management must be clear. Consequently, the concept of the living environment in Indonesia is not only an ecology concept but also under the law and political dimension.

Thus, maintaining prosperity, security and defense of Indonesia is crucial.³⁰ It is equal with maintaining and protecting the Indonesian nature and environment from the disaster, damage, pollution, and other natural hazards. In consequence, the community's awareness for disaster mitigation participation is very important and it is hopefully applied and taught

²⁸ Bevaola Kusumasari and Quamrul Alam, "Bridging the Gaps: The Role of Local Government Capability and the Management of a Natural Disaster in Bantul, Indonesia," *Natural Hazards* 60, no. 2 (2012): 761–79, <https://doi.org/10.1007/s11069-011-0016-1>.

²⁹ David King et al., "Land Use Planning for Disaster Risk Reduction and Climate Change Adaptation: Operationalizing Policy and Legislation at Local Levels," *International Journal of Disaster Resilience in the Built Environment* 7, no. 2 (2016): 158–72, <https://doi.org/10.1108/IJDRBE-03-2015-0009>.

³⁰ Moh. Arif Rakman Hakim and Ubaidillah, "The Reactualization of Nationalism As a State Defense Strategy in The Perspective of The Nusantara Interpretation of Al-Qur'an," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 45, no. 2 (2021), <http://jurnalmiqotojs.uinsu.ac.id/index.php/jurnalmiqot/article/view/862>.

³¹ Muzani et al., "Disaster Mitigation through Disaster Education in Indonesia," *Journal of Critical Reviews* 7, no. 12 (2020): 1344–50, https://sipeg.unj.ac.id/repository/upload/jurnal/5._Disaster_education_Scopus_Q3_.pdf.

in the national curriculum on how students can be more aware and correctly and properly take a part in disaster mitigation since early time³¹.

Acts No. 4 year of 1982 differentiates between damage and pollution. Environmental pollution is a condition when inserting other living creatures, energy, substance, and any other components/elements into a certain environment, or the change or transformation of a certain environment caused by human activities, or a natural process that causes the change of quality of environment into certain lower level which causes the decrease of natural function as its previous existence. Moreover, environmental damage is an action causing a direct or indirect change to the environment.³²

- a. Acts No. 11 the year of 1967 about the principles of mining resulting the harmony and balance in mining management in the mountain area. According to chapter 16 verse (1) UUPM, the mining business is not allowed to run its business in the covered area which is for the public interest, field, and defense building. The stakeholders of the mining business are obliged to restore the land to the previous condition to remove the probability of the source of disease and any other dangers for the surrounding community after the mining activities are over (Chapter 30 UUPM).
- b. In the working area: Acts No. 14 the year of 1969 about the principle provision of workers at the working place. Chapter 9 UUTK states that each worker has the right to receive protection and guarantee on safety, health, morality, working appreciation, and proper treatment based on the values of human beings and religion. Furthermore, chapter 2 verse (1) regulation number 1 the year 1970 stated that work safety is applied for all working places either on land, underground, on the surface of the water, deep in the water, or the sky as far as inside of Indonesian territory.
- c. In the industrial sector: the regulation number. 5 year in 1985 about the industry had been ratified. Based on Table 1, number 2, 'industry' refers to the economy and business that alter raw materials, half-finished products, and finished products into more valuable products. An entrepreneur is required to prevent and manage the disturbance and defilement of the environment during industrial activities. To do so, they must make a plan for emergencies that comprises steps for limiting, cleaning, and preventing the destruction and pollution of the environment due to releasing waste and dangerous materials.

3. Compromising the Islamic Teachings and Government Policies for Mitigating the Natural Disaster

People always ignore the norms in life that manage the relationship between humans and nature. They tend to replace those norms with norms that prioritize their interests.

³² Muh Aris Marfai et al., "Natural Hazards in Central Java Province, Indonesia: An Overview," *Environmental Geology* 56, no. 2 (2008): 335–51, <https://doi.org/10.1007/s00254-007-1169-9>.

In the modern era, people always interact with nature without considering moral norms from religion, in this context Islamic teaching, that are supposed to direct their activities. They exploit nature without any responsibility and innocence. Consequently, the quality of natural resources decreases, including the loss of some types of species on earth. Moreover, the quality of the nature and environment degrades completely such as pollution and destruction of the nature and environment become significant problems that affect directly the daily life of human beings.

The religious ethic within the Islamic teachings drives humans to conserve and protect nature continuously. This is aimed to ensure that the natural resources are well and properly protected to support human life. Islamic teaching teaches the importance of sustainability and balance in utilizing and exploiting natural resources and ordering people to be responsible for what they do regarding the effect on the nature and environment. These principles navigate people to behave wisely, love nature, and make sure of the sustainability of nature for the sake of human life.

To strengthen it, a compromise between Islamic teachings and government policies is a must. The government policies, beside Islamic teachings, has issued many acts and regulations managing and monitoring the nature and environment in Indonesia. However, those acts and regulations are not fully effective to apply. The unplanned and un-integrated living environmental management cause damage and pollution to nature and the environment. To solve this issue, the principles of Islamic law become the foundation for social power activities for ensuring a regular, balanced, and harmonious life. Moreover, it is also used to prevent and stop pollution and destruction of nature which is causing imbalance and disharmony in life. Some principles are equality, balance, public interest, cooperation, and justice, by implementing those principles, it is expected that the living environment can sustain and transform into an ideal and expected objective.

Islamic law is urgently needed to build a community who are aware of preventing and stopping destruction and disaster. Islamic law drives people to be responsible for protecting and conserving the nature and environment. If the acts and regulations by the government policies have been well and properly applied, and at the same time Islamic teachings are applied by Islamic followers, then the nature and environment can grow in balance and harmony as expected.

Conclusion

The conclusions of this study are three; 1) The Islamic teachings in the Qur'an and hadith show a great attention and are guidance for human beings for natural environment protection and conservation in order to mitigate the natural disaster since early time. 2) Government policies also take a part to tackle all probabilities of causing natural disasters in Indonesia. Unfortunately, Islamic teachings and government policies run on different path

toward mitigating the natural disaster in Indonesia. 3) Consequently, a compromise implementation is a must between them two to manifest of an ideal and sustainable natural disaster mitigation in Indonesia.

References

- Abd Jalil, Mohamad Isa. "Giving in an Islamic Perspective." *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 44, no. 1 (2020): 1. <https://doi.org/10.30821/miqot.v44i1.696>.
- Al-Baghawi, Abu Muhammad al-Husain bin Mas'ud al-Farra'. *Mukhtashar Tafsir Al-Baghawi*. Mesir: Dar al-Ma'rifah, 2005.
- Al-Damkhi, Ali Mohamed. "Environmental Ethics in Islam: Principles, Violations, and Future Perspectives." *International Journal of Environmental Studies* 65, no. 1 (2008): 11–31. <https://doi.org/10.1080/00207230701859724>.
- Alpay, Sava^o, Ibrahim Özdemir, and Dilek Demirba^o. "Environment and Islam." *Journal of Economic Cooperation and Development* 34, no. 4 (2013): 1–22.
- Basyir, Kunawi. "The Relations of Religion and Ethnicity of Urban Communities in Surabaya." *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 44, no. 1 (2020). <http://jurnalmiqotojs.uinsu.ac.id/index.php/jurnalmiqot/article/view/717>.
- Botzen, W. J. Wouter, Francisco Estrada, and Richard S.J. Tol. "Methodological Issues in Natural Disaster Loss Normalisation Studies." *Environmental Hazards* 20, no. 2 (2021): 112–15. <https://doi.org/10.1080/17477891.2020.1830744>.
- Chan, E. Y.Y., A. Y.T. Man, and H. C.Y. Lam. "Scientific Evidence on Natural Disasters and Health Emergency and Disaster Risk Management in Asian Rural-Based Area." *British Medical Bulletin* 129, no. 1 (2019): 53–67. <https://doi.org/10.1093/bmb/ldz002>.
- Fu, Albert S. "Connecting Urban and Environmental Catastrophe: Linking Natural Disaster, the Built Environment, and Capitalism." *Environmental Sociology* 2, no. 4 (2016): 365–74. <https://doi.org/10.1080/23251042.2016.1220891>.
- Gada, M. Y. *Environmental Ethics in Islam: Principles and Perspectives*. *World Journal of Islamic History and Civilization*. Vol. 4, 2014. <https://doi.org/10.5829/idosi.wjihc.2014.4.4.443>.
- Hakim, Moh. Arif Rakman, and Ubaidillah. "The Reactualization of Nationalism As a State Defense Strategy in The Perspective of The Nusantara Interpretation of Al-Qur'an." *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 45, no. 2 (2021). <http://jurnalmiqotojs.uinsu.ac.id/index.php/jurnalmiqot/article/view/862>.
- Idris, Muh. "Azyumardi Azra'S Thought on Multicultural Education." *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 44, no. 1 (2020): 52. <https://doi.org/10.30821/miqot.v44i1.739>.
- Idrus, Muhammad. *Islam Dan Etika Lingkungan*. Wordpress, 2015.
- Jigyasu, Rohit. "Reducing Disaster Risks to Urban Cultural Heritage: Global Challenges and Opportunities." *Journal of Heritage Management* 1, no. 1 (2016): 59–67. <https://doi.org/10.1080/23251042.2016.1220891>.

[/doi.org/10.1177/2455929616649476](https://doi.org/10.1177/2455929616649476).

- King, David, Yetta Gurtner, Agung Firdaus, Sharon Harwood, and Alison Cottrell. "Land Use Planning for Disaster Risk Reduction and Climate Change Adaptation: Operationalizing Policy and Legislation at Local Levels." *International Journal of Disaster Resilience in the Built Environment* 7, no. 2 (2016): 158–72. <https://doi.org/10.1108/IJDRBE-03-2015-0009>.
- Kula, E. *Islam and Environmental Conservation. Environmental Conservation*. Vol. 28, 2001. <https://doi.org/10.1017/S0376892901000017>.
- Kusumasari, Bevaola, and Quamrul Alam. "Bridging the Gaps: The Role of Local Government Capability and the Management of a Natural Disaster in Bantul, Indonesia." *Natural Hazards* 60, no. 2 (2012): 761–79. <https://doi.org/10.1007/s11069-011-0016-1>.
- M. Quraish. *Membumikan Alquran. Bandung/ : Mizan*, 1994.
- Marfai, Muh Aris, Lorenz King, Lalan Prasad Singh, Djati Mardiatno, Junun Sartohadi, Danang Sri Hadmoko, and Anggraini Dewi. "Natural Hazards in Central Java Province, Indonesia: An Overview." *Environmental Geology* 56, no. 2 (2008): 335–51. <https://doi.org/10.1007/s00254-007-1169-9>.
- Mukhtarom, Asrori, Ety Kurniati, and Desri Arwen. "Pendidikan Kewarganegaraan Dalam Perspektif Al-Quran Di Era Digital." *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 4, no. 2 (2023): 1–20. <https://doi.org/10.47783/jurpendigu.v4i2.497>.
- Muzani, Desy Safitri, Arita Marini, and Apri Wahyudi. "Disaster Mitigation through Disaster Education in Indonesia." *Journal of Critical Reviews* 7, no. 12 (2020): 1344–50. https://sipeg.unj.ac.id/repository/upload/jurnal/5._Disaster_education_Scopus_Q3_.pdf.
- Pandey, Varsha, Prashant K. Srivastava, and George P. Petropoulos. "The Contribution of Earth Observation in Disaster Prediction, Management, and Mitigation: A Holistic View." *Techniques for Disaster Risk Management and Mitigation* 4 (2020): 47–62. <https://doi.org/10.1002/9781119359203.ch4>.
- Peng, Li, Jing Tan, Lei Lin, and Dingde Xu. "Understanding Sustainable Disaster Mitigation of Stakeholder Engagement: Risk Perception, Trust in Public Institutions, and Disaster Insurance." *Sustainable Development* 27, no. 5 (2019): 885–97. <https://doi.org/10.1002/sd.1948>.
- Pramana, Setia, Dede Yoga Paramartha, Yustiar Adhinugroho, and Mieke Nurmalasari. "Air Pollution Changes of Jakarta, Banten, and West Java, Indonesia During the First Month of COVID-19 Pandemic." *Journal of Business, Economics and Environmental Studies* 10, no. 4 (2020): 15–19.
- Pramono, Joko, Dora Kusumastuti, Maya Sekarwangi, and Achmad Choerudin. "The Community Participation in Disaster Mitigation to Managing the Impact of Natural Disasters in Indonesia." *Talent Development & Excellence* 12, no. 2s (2396): 2396–2403. <http://www.iratde.com>.

- Pringgar, Fatha, and Bambang Sujatmiko. "Penelitian Kepustakaan (Library Research) Modul Pembelajaran Berbasis Augmented Reality Pada Pembelajaran Siswa." *Jurnal IT-EDU* 05, no. 01 (2020): 317–29. <https://ejournal.unesa.ac.id/index.php/it-edu/article/view/37489>.
- Rahmah, Syarifah, and Muhammad Fadhli. "CHARACTER EDUCATION IN ISLAMIC EDUCATION INSTITUTIONS: A Study on the Impact of Lecturer Competence at IAIN Lhokseumawe." *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 45, no. 1 (2021): 87. <https://doi.org/10.30821/miqot.v45i1.771>.
- Razali Ibrahim, Muhammad Syahrial. "MODERATE ISLAM REVISITS: A Lesson from T.M. Hasbi Ash-Shiddieqy's Interpretation of Wasathiyah in Tafsir An-Nuur." *Journal of Contemporary Islam and Muslim Societies* 6, no. 1 (2022): 1–29. <https://doi.org/10.30821/jcims.v6i1.9058>.
- Silalahi, Daud. *Hukum Lingkungan Dalam Sistem Penegakan Hukum Lingkungan Indonesia*, 2019.
- Syamsuri, and Okta Yuripta Syafitri. "Maqâshid Syarî'Ah Approach On The Empowerment Of Human Resources In Mulyodadi Village Bantul Yogyakarta." *MIQOT: Jurnal Ilmu-Ilmu Keislaman* XI, no. 2 (2018): 1–367. <https://doi.org/http://dx.doi.org/10.30821/miqot.v42i2.549>.
- Thaib, Zamakhsyari Hasballah. "Qur'anic Perspectives on Caring for the Elderly." *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 45, no. 1 (2021): 1. <https://doi.org/10.30821/miqot.v45i1.759>.
- Wang, Zheyue, and Xinyue Ye. "Social Media Analytics for Natural Disaster Management." *International Journal of Geographical Information Science* 32, no. 1 (2018): 49–72. <https://doi.org/10.1080/13658816.2017.1367003>.
- Yusuf, R, M Yunus, M Maimun, and I Fajri. "Environmental Education: A Correlational Study among Environmental Literacy, Disaster Knowledge, Environmental Sensitivity, and Clean-Living Behavior of" *Polish Journal of Environmental ...*, 2021.