SOCIO-ECO-RELIGIO-CULTURAL APPROACHES IN ADDRESSING ENVIRONMENTAL DAMAGE: AN INTERPRETATIVE ANALYSIS BASED ON THE QURAN AND HADITH

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ABSTRACT

Purpose: This article discusses the ecological verses that have been interpreted in efforts to maintain the existence of environmental conservation. Ecology is a discipline that explores the symbiotic mutualism between nature and living organisms. The Quran uses several terms related to ecology, such as living environment (al-bi'ah), the entire universe (al-'alamı́n), the sky or cosmos (al-samā'), earth (al-arḍ), human beings (al-insān), fauna (al-an'ām or dābbah), flora (al-nabāt or al-harth), water (mā'), air (al-rīḥ), sun (al-shams), moon (al-qamar), stars (al-burūj), and mountains (jabal).

Methods: This research is essential due to recent environmental crises leading to various natural disasters. This is a qualitative study employing a literature review approach. This paper emphasises that maintaining the existence of environmental conservation is vital for the natural balance and future generations as it is part of Islamic teachings.

Result and Discussion: Therefore, verses concerning the existence of environmental conservation need to be actualised. The results of this research can provide input for policymakers on the importance of consistently promoting the preservation of the environment as commanded by the Quran, such as maintaining a clean environment, keeping nature in balance, preserving ecological equilibrium, reforestation for greener nature, and making land productive.

Research implications: The findings suggest potential opportunities for agrarian reform to aid in protecting and preserving ecosystems, ensuring that they remain viable and beneficial for future generations.

Originality/value: This paper offers valuable perspectives on Islamic eco-culture as a potential solution to environmental degradation, drawing from the teachings of the Quran and Hadith. It explores the commendable efforts of Muslim communities to conserve the environment, guided by these two key sources of Islamic teachings. This narrative aims to offer constructive ideas and empower active participation, emphasizing the shared responsibility of both the community and government in ensuring that environmental issues receive the due attention they deserve.

Keywords: Islamic Ecology, Environmental Conservation, Quran, Hadith.

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ABORDAGENS SOCIO-ECOLÓGICAS-CULTURAIS NA ABORDAGEM DOS DANOS AMBIENTAIS: UMA ANÁLISE INTERPRETATIVA BASEADA NO ALCORÃO E HADITH

RESUMO

Propósito: Este artigo discute os versos sobre ecologia que são interpretados como um esforço para manter a existência da conservação ambiental. A ecologia é uma ciência que discute as inter-relações entre os seres vivos e seu entorno natural. Vários termos relacionados à ecologia são mencionados no Alcorão, incluindo: o ambiente (al-biaha), o universo (al-alamin), o céu (al-sama‘), a terra (al-ard), o humano (al-insan), a fauna (al-an‘am or dabbah), a flora (al-harts), a água (ma‘a‘), o ar (al-rih), o sol (al-syams), a lua (al-qamar), as estrelas (al-buruj) e as montanhas (jabal).

Métodos: Esta pesquisa é crucialmente conduzida porque tem havido várias crises ambientais ultimamente que têm causado vários desastres naturais. Através de abordagem qualitativa e técnicas de coleta de dados com estudos da literatura, este artigo mostra que a manutenção da existência da conservação ambiental é fundamental para o equilíbrio da natureza para as gerações futuras, pois faz parte dos ensinamentos islâmicos.

Resultado e Discussão: Portanto, os versos relativos à existência de conservação ambiental precisam ser atualizados. Os resultados deste estudo fornecem sugestões cruciais para os formuladores de políticas que estão socializando de forma consistente e constante a importância de proteger o meio ambiente, conforme instruído pelo Alcorão, entre outros, mantendo a limpeza ambiental, mantendo o equilíbrio da natureza, plantando árvores para reforestamento, revivendo a terra morta.

Implicações da pesquisa: Há oportunidades para realizar a reforma agrária em um esforço para proteger e salvaguardar os ecossistemas para que possam ser desfrutados pelas gerações futuras.

Originalidade/valor: Este artigo fornece insights valiosos sobre a cultura eco islâmica como uma solução para danos ambientais, referindo-se à perspectiva do Alcorão e do hadith. Ele se concentra nos esforços para salvar o meio ambiente de vários danos, referindo-se a duas fontes de ensinamentos islâmicos que são usados como diretrizes pelas comunidades muçulmanas. Espera-se que a narrativa contribua com ideias como forma de participação para que os problemas ambientais recebam atenção séria da comunidade e do governo.


ENFOQUES SOCIO-ECO-RELIGIO-CULTURAIS PARA ABORDAR EL DAÑO AMBIENTAL: UN ANÁLISIS INTERPRETATIVO BASADO EN EL CORÁN Y EL HADITH

RESUMEN

Propósito: Este artículo discute los versos sobre ecología que se interpretan como un esfuerzo por mantener la existencia de la conservación ambiental. La ecología es una ciencia que discute las interrelaciones entre los seres vivos y su entorno natural. Varios términos relacionados con la ecología se mencionan en el Corán, incluyendo: el medio ambiente (al-biaha), el universo (al-alamin), el cielo (al-sama‘), la tierra (al-ard), el ser humano (al-insan), la fauna (al-an‘am o dabbah), la flora (al-harts), el agua (ma‘a‘), el aire (al-rih), el sol (al-syams), la luna (al-qamar), las estrellas (al-buruj) y las montañas (jabal).

Métodos: Esta investigación se lleva a cabo de manera crucial porque últimamente ha habido varias crisis ambientales que han causado varios desastres naturales. A través de un enfoque cualitativo y técnicas de recolección de datos con estudios de literatura, este artículo muestra que mantener la existencia de la conservación ambiental es fundamental para el equilibrio de la naturaleza para las generaciones futuras, ya que es parte de las enseñanzas islámicas.

Resultado y Discusión: Por lo tanto, los versículos relacionados con la existencia de la conservación del medio ambiente deben ser actualizados. Los resultados de este estudio proporcionan sugerencias cruciales para los responsables de las políticas, que están socializando constante y consistentemente la importancia de proteger el medio ambiente como se indica en el Corán, entre otros, mantener la limpieza ambiental, mantener el equilibrio de la naturaleza, plantar árboles para la reforestación, revivir la tierra muerta.

Implicaciones de la investigación: Existen oportunidades para llevar a cabo la reforma agraria en un esfuerzo por proteger y salvaguardar los ecosistemas para que puedan ser disfrutados por las generaciones futuras.
Originalidad/valor: Este artículo ofrece valiosas perspectivas sobre la ecocultura islámica como una solución al daño ambiental, refiriéndose a la perspectiva del Corán y el hadiz. Se centra en los esfuerzos para salvar el medio ambiente de diversos daños, haciendo referencia a dos fuentes de enseñanzas islámicas que son utilizadas como directrices por las comunidades musulmanas. Se espera que la narrativa aporte ideas para la participación de manera que los problemas ambientales reciban una seria atención de la comunidad y el gobierno.

Palabras clave: Ecología, Cultura islámica, Medio ambiente, Al-Quran, Hadith.

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1 INTRODUCTION

Environmental damage in Indonesia, particularly in Riau Province, is frequently associated with forest fires, which constitute one of the largest cases in the country. Almost all (99.9%) of these fires are either deliberately ignited or resulted from negligence, whether through shifting cultivation or actions by forestry or plantation businesses. The damage to forests and lands due to fires occurring in Industrial Plantation Forests (HTI), natural forests, and converted plantations can be attributed to human activity, accounting for 99% of the causes of forest fires in Riau, either by accident or through the spread of fires during land preparation. Fuel and fire play a significant role in preparing agricultural lands and plantations. Burning is perceived as a convenient and cost-effective method while producing minerals readily absorbed by plants. However, the substantial fuel burned in the fields leads to thick smoke and extensive environmental harm. Consequently, to minimise environmental impact, the use of fire and fuel in land preparation must be meticulously regulated. Addressing this issue requires fire hazard management grounded in research findings rather than merely relying on textbook translations or experiences from other countries without adapting them to local land conditions (Husni T, 2012).
As a normative source of Islamic teachings, the Quran serves as a primary and irreplaceable guide for humanity, offering directions for achieving happiness in this world and the hereafter. To attain this happiness, individuals must nurture their relationship with God (hablun min Allah) while fostering relationships with fellow human beings (hablun min al-Nas) as part of their horizontal social existence. Moreover, it is crucial to pay attention to protecting and preserving the environment and its existence by maintaining, safeguarding, and sustaining it. This is done to ensure adherence to values that promote a peaceful life. (Suparni, 1994). When humans can adapt by meticulously caring for their surroundings, the ecological balance will be maintained, providing significant benefits to human life.

Humans are also referred to as khalifah fil ardh (stewards on earth), implying a responsibility to manage and benefit from natural resources according to principles of protection and conservation for the welfare and fulfilment of life's necessities (Shihab, 2000).
Allah asserts that the earth, with all it encompasses and creates, is provided for the needs and purposes of humanity, as stated in Surah al-Hijr (15):19-20:

وَالْأَرأضَ مَدَدنَـٰهَا وَأَلأقَيَانَا فِيهَا رَوَٰسِىَ وَأَنۢبَتَنَا فِيهَا مِن كُل ِ شَىأء ۢ مَّوأزُونَ (١٩) وَجَعَلَنَا لَكُم فِيهَا مَعَـٰيِشَ وَمَن لَّسأتُمأ لَهُۥ بِرَٰزِقِينَ (٢٠)

"As for the earth, We spread it out and placed upon it firm mountains, and caused everything to grow there in perfect balance. (19). And We made in it means of sustenance for you and others, who you do not provide for. (20)."

This passage clarifies that the earth's expanse was laid out to fulfil Allah's creatures' needs. Allah's creation on earth and in the heavens, land and sea, and water and soil is intended for humans to lead a balanced and good life. Therefore, an inseparable aspect of human life is the environment itself. Sociologically, humans cannot survive in isolation; they are social beings that cannot exist independently of community and group life. Hence, the fulfilment of needs, including food and clothing, is closely connected to the environment in which they reside. Additionally, the availability of natural resources contributes to a comfortable life by providing nourishment and energy for humans, plants, and animals.

Despite this, the recurring disasters in life are a consequence of damaged ecology, primarily due to human actions, particularly excessive exploitation that often leads to the destruction of nature and its balance. This environmental crisis is being collectively addressed by humanity in an attempt to find solutions. Furthermore, various regulations, legal provisions, and efforts to draft treaties for protecting and conserving nature are being made to address this crisis effectively. However, these efforts are often limited to maintaining the status quo. (Rodin, 2017). Therefore, an alternative approach is needed to improve the situation and prevent ecological crises from worsening.

Several writings have been undertaken to discuss environmental issues concerning Quranic studies. Firstly, Sulaiman Ibrahim's article "Pelestarian Lingkungan Hidup Perspektif al-Quran: Kajian Tafsir Maudhu’iy (Environmental Conservation from the Perspective of the Quran: A Thematic Interpretation)" explains that environmental conservation encompasses more than just physical elements such as water, soil, air, and weather. It also includes social and chemical environments. The social environment comprises factors or situations within society that can influence sociological, cultural, political, and economic changes. The Quran strongly supports the idea that humans should pay attention to environmental conservation, including directives to perform good deeds and avoid causing damage to the earth (Ibrahim, 2016). The Quran contains approximately 800 verses related to nature, the environment, and
humans' responsibility to maintain the balance and sustainability of the universe. Secondly, in their article 'Environmental Damage in the Quran,' Aisyah Nurhayati and her colleagues assert that environmental degradation is a consequence of human actions, whether direct or indirect. The ramifications of such damage are far-reaching, affecting the physical environment and human behaviour. They advocate for a religious spiritual revolution, a continuous process of raising awareness and instilling Islamic values, to guide human attitudes and policies towards the environment, thereby preventing destructive behaviour. (Nurhayati et al., 2018). Thirdly, Eko Prayetno's article titled "Kajian al-Quran dan Sains tentang Kerusakan Lingkungan (Studies on the Quran and Science on Environmental Damage)" emphasises that one of the factors contributing to ecological damage is the disproportionate relationship between humans and nature. Thus, humans (particularly Muslims) must understand the Quranic information regarding nature and its preservation. A textual and contextual approach to the Quran is necessary to comprehend its messages. This approach is vital for gaining a deeper understanding of the Quranic texts (Prayetno, 2018).

2 METHODOLOGY

This qualitative research on implementing eco-Islamic principles aims to describe the efforts humans must undertake to preserve the environment. Data was gathered through a library research method to identify and explain Quranic verses related to environmental terms, and these verses were then analysed using a thematic interpretation approach (tafsir maudhui). In order to obtain data for analysis, the author collected several Quranic verses concerning ecology, supported by the hadiths of the Prophet and explanations from Quranic scholars, to achieve a comprehensive understanding of the existence of environmental conservation. The research data was analysed through three stages: first, data reduction, which is the process of selecting and refining data; second, data presentation; and third, concluding. The results of this research are expected to contribute new knowledge on how to preserve the environment within society on a normative level, provide a special focus on ecology, and establish a tradition of engaging with the environment and nature.

This research was conducted through in-depth interviews with the following informants: traditional figures (17); company leaders (5); academics (11); environmental non-governmental organisations (12); Friends of the Earth Indonesia (7); Ministry of Environment representatives (13); Environmental Agency staff (15); religious figures (25); ordinary people (35); and community leaders (17). Data analysis activities encompassed classification, categorisation,
interpretation, and discussion. In addition to conducting in-depth interviews, data was collected through observation of Indigenous Lands, including data on extinct cultural rights and territories, losses of indigenous land rights, and the right to self-determination and cultural identity of Indigenous Lands. Further observations involved activities and facilities, rights to profess belief systems and values, socio-political losses, and local cultural losses. Data processing or descriptive analysis involved simplifying and explaining part of the entire dataset through the classification and categorisation of Indigenous Lands, thus providing a series of systematic and accurate descriptions within the context of a socio-anthropological ecological approach. Classifying and categorising data began during data collection and continued in more detail and systematically after all data was gathered. Classification and categorisation were conducted in part while maintaining the overall context of Malay culture. The categorisation process included qualitative interpretation, conducted inductively based on an emic approach.

3 RESULT AND DISCUSSION

1) Definition of Ecology

"Ecology" is often used interchangeably with "environment" in everyday and academic contexts. While these terms may differ in literal meaning, they are generally used with the same connotation, referring to the environment in its broadest sense, including the physical, chemical, and biological aspects of human, animal, and plant life (Akib, tth). The concept of "environment" can differ from ecology, ecosystem, and environmental carrying capacity. However, all these concepts stem from the definitions of environment and living environment. Linguistically, "environment" carries several meanings: firstly, as the conditions or surrounding forces that impact the dynamics of an organism's development and behaviour; secondly, as the circle or natural state of an area that functions as it should, influenced by the life and livelihood of humans, animals, plants, and other living organisms; thirdly, as the physical, chemical, and biotic conditions surrounding an organism (Husein, 1995).

Terminologically, "environment" can be defined in several ways: firstly, according to Article 1 of Law No. 23 of 1997 on Basic Provisions for Environmental Management, the environment encompasses the unity of all objects and spaces, energies and situations, and living beings, including humans and their behaviour, which influence the continuity of life and the welfare of humans or other living beings. Secondly, the environment includes all objects, energies, and conditions, including humans and their behaviours, existing in the space in which humans reside, affecting the continuity of life and the welfare of humans and other living beings.
(Saragih, t.th). Thirdly, according to Danusaputro, the environment includes all objects, energies, and conditions, including humans and their behaviours, existing in the space where humans reside and affecting the continuity of life and the welfare of humans and other living beings (Danu Saputro, 1985). Meanwhile, according to Otto Sumarwoto, the environment encompasses all objects and conditions in our space that influence our lives, which is problematically studied in ecology, a field concerned with the mutualistic symbiosis between living beings and their environment (Soemarwoto, 1991). Fourthly, the environment refers to all objects, conditions, and influences within our space that impact human life (Salim, 1998).

The term 'ecology', a cornerstone in the field of environmental studies, was first introduced by German biologist Ernst Haeckel in 1869. Earlier, experts such as Hippocrates, Aristotle, and other Greek philosophers had described ecological properties without explicitly defining them as ecological terms (Odum, 1993). The term 'ecology' is derived from the Greek ‘oikos’, meaning 'home' or 'place of life,' and 'logos,' meaning 'science.' In its literal sense, ecology is the science of studying organisms in their living environment, or in other words, the study of the reciprocal relationship between the environment and organisms.

According to Matthews et al., ecology focuses on the study of the interrelationships between living organisms and their environment (Hardjasoemantri, 2000). This aligns with the views of Professor Otto Soemarwoto, an expert in ecology and environmental management at Padjadjaran University, Bandung, who describes ecology as the science of mutualistic symbiosis (reciprocal relationships) between living beings and their environment. From this perspective, environmental issues are essentially ecological issues (Soemarwoto, 1991). The key point is that when the reciprocal relationship between living beings and their environment operates harmoniously and as an interdependent whole, a healthy ecosystem will form. In this intricate web of life, where the environment includes both living and non-living components, the formation of an ecosystem involves collaboration and interaction between these components as a unified whole, and there is interdependence between them.

2) Ecology in the Quranic Perspective

As previously discussed, ecology is a field that delves into the interconnected relationship between nature and living beings. The Quran, a significant religious text, incorporates numerous terms that are directly related to ecology. These terms include: the environment (al-bi'ah), the entire world (al-'alamin), the sky or universe (al-sama'), earth (al-ard), humans (al-insan), fauna (al-an'am or dabbah), flora (al-nabat or al-harth), water (ma''), air (al-rih), the sun (al-shams), the moon (al-qamar), stars (al-buruj), and mountains (jabal). The explanations for these terms are as follows:
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a) Environment, using the term *al-bi‘ah*. This term is mentioned 18 times (Fuad, 1981). The usage of *al-bi‘ah* and its various derivatives connotes the environment as a space for the life of human species. The derivation of the term *al-bi‘ah* or environment as a space for life aligns with the ecological tradition, which understands all things outside an organism as part of the environment. In other words, everything outside an organism is closely related to its living space (Abdillah, 2001).

b) The Entire Universe, or *al-‘alamin*. This term and its derivatives are used 73 times across 30 chapters (suras). When preceded by the word "*rabb,*" the phrase "*rabb al-‘alamin*" appears 42 times in 20 chapters. Meanwhile, the term "*al-‘alamin*" is used 31 times without the prefix "*rabb*" in "*rabb al-‘alamin*"(Shihab 2007). "*rabb al-‘alamin*" consistently refers to God as the Lord of the entire universe or all creatures, or species including biotic and abiotic entities such as humans, plants, animals, seas, and air. As explained in the interpretation of "*rabb al-‘alamin*" in Surah Al-Fatihah (1:2):

\[
\text{ﭑَمَأَمُ} لِلَّٰٓ رَب ِ ٱلأعَلَمِينَ
\]

Meaning: All praise is for Allah—Lord of all worlds.

In this verse, the term "*rabb al-‘alamin*" is a possessive form consisting of the word "*rabb*" as the first word, functioning as mudaf, and the word "*al-‘alamin*" as the second word, functioning as mudaf ilayh. "*rabb*" derives from the root "*rabba-yarubbu-rabban,*" meaning 'the Lord who possesses, educates, and sustains.' The term "*rabb*" encompasses all the attributes of God that encompass His creatures, such as *al-Razzaq* (the Provider), *al-Ghafur* (the Forgiving), and *al-Rahman al-Rahim* (the Compassionate and Merciful) (Shihab, 2007).

c) Sky or the Cosmos. The term "sky" is translated from "*al-sama*" and is mentioned up to 387 times in various forms in the Quran. The term "*al-sama*" is also used in its plural form "*al-samawat*" 19 times, usually alongside the term "*al-ard.*" Mujiono Abdillah concludes that despite the diverse expressions in the Quran regarding "*al-sama,*" which can refer to the atmosphere, space, and the universe, a closer examination reveals its ultimate meaning as the universe. This is because the universe encompasses both the atmosphere and outer space. When paired with "*wa ma bainahuma,*" the universe is understood as existing between the two (Zuhdi, 2015).

d) Earth, in the Quran, is referred to by the term "*al-ard.*" It is mentioned 461 times across 80 chapters (Shihab, 2007). The term "*al-ard*" is always used in the singular form (*mufrad*) and never in the plural form (jamak). According to Abdillah, the term "*al-ard*"
possesses at least two meanings. First, it refers to the environment of planet Earth, where humans reside, with its various geological phenomena. Second, it denotes the planet's formative environment during its creation and evolution (Abdillah, 2001). When compared to other entities, Earth stands out as the most suitable place for life due to the availability of food, air, and the stability of the natural environment. As a result, Earth can be considered a "giant body" with systems that support the survival of its inhabitants (Baqi, 1981).

e) Humans. In this context, the Quran uses the term "al-insan," which appears multiple times in its various derivatives, totaling 90 mentions (Baqi, 1981). Meanwhile, the term "al-nas" is repeated 240 times (Baqi 1981). Some scholars believe that the terms "al-insan" or "al-nas" stem from the word "uns," which means happiness and harmony. Thus, humans inherently seek happiness and have the potential to build harmonious relationships with all creatures (Shihab, 2003). Human creation aims to enable them to govern and care for the Earth and make the most of its resources for a happy life. Therefore, God granted humans an intelligent mind, sharp thinking, noble emotions, and the ability to act as caliphs on Earth—attributes that set them apart from other creatures. The responsibility of being a caliphate implies that humans have the duty to create happiness and prosperity on Earth (Fachruddin, 1992)

f) Fauna or Animals. The Quran uses the terms dabbah and al-an’am to refer to animals (Najjar, 2006). The term dabbah is mentioned 18 times in the Quran, with 14 instances in singular form (ism mufrad) and four times in plural form (jama’ taksir). According to Quraish Shihab, the term dabbah and dawwab have three meanings: first, specifically for animals (Surah Al-Baqarah/2: 164); second, for animals and humans (Surah Al-Nahl/16: 49); and third, for animals, humans, and jinn (Surah Hud/11: 6) (Shihab, 2007). The term al-an’am is repeated 32 times (Baqi, 1981) and can refer to livestock, similar to gold, silver, gardens, fields, and horses. As mentioned in the Quran, the functions of al-an’am include transportation, milk production, meat consumption, and the use of wool for adornment and clothing. Surah Ali ‘Imran/3: 14, Surah Al-Nahl/16: 5, 80, Surah Al-Mu’minun/23: 75, and Surah Al-Zukhruf/43: 12 (Shihab 2007). In Surah Al-Nahl/16: 66, scholars such as Al-Qurtubi (Qurtubi 1998) and Ibn Katsir (Katsir 1998) interpret al-an’am as referring to four types of livestock: camels, cattle, goats, and sheep. This interpretation suggests that al-an’am includes four-legged animals, while dabbah has a broader meaning. According to Surah Al-Nur/24: 45, interpreted by scholars such as Al-Baghawi (Baghawi, 1990), Ibn Katsir, and Al-Sa’di (Sa’di,
2002), *dabbah* encompasses animals that move using their bellies (such as snakes, fish, and worms), those that walk on two legs (such as humans and birds), and those that walk on four legs (such as camels, cattle, and goats) (Shihab 2007).

g) Flora refers to all types of plants and vegetation. In the Quran, flora is represented by the terms *al-nabat* and *al-harts*. The term *al-nabat* appears 9 times, while *al-harts* is mentioned 12 times. According to the KBBI (Kamus Besar Bahasa Indonesia, 2008), flora refers to the plant life in a specific area or during a specific period. The Quran also uses the term *fakihah* to represent flora, which linguistically means 'good and joyful,' translating to 'delicious and delightful fruits.' The Quran mentions *fakihah* 11 times in its singular form (mufrad) and three times in its plural form (fawakih), in Surah Al-Mu’minin/23: 19, Surah Al-Mursalat/77: 42, and Surah Al-Baqarah/2: 25, indicating the benefits of water for human life and the production of various fruits. The Quran uses these terms to depict paradise and rewards as symbols of blessings (Abdillah, 2001).

h) Water, or *ma’*. The Quran mentions water 59 times, with different forms such as *ma’uka* (your water), *ma’iha* (his water), *ma’ukum* (your water), and *ma’uha* (her water), which collectively appear 63 times in the Quran (Shihab, 2007). Generally, *ma’* or water is considered a source of life. Water is a primary necessity for living beings. Pure water is found in the atmosphere, while other forms of water exist on the surface of the Earth, such as rivers, seas, lakes, and underground sources (Basith, 2002).

i) Air or Wind. The Quran uses the terms *al-rih* or *al-riyah* to refer to wind, which is mentioned 29 times (Baqi, 1981). The usage of *al-rih* is not limited to a single context but varies depending on the characteristics of the wind. These include: a) a favourable wind that allows ships to sail (Surah Yunus/10); b) a stormy wind that can cause sinking (Surah Yunus/10: 22); c) a hurricane that can drown disbelievers (Surah Al-Isra’/17: 69); d) a cold wind that can damage crops (Surah Ali’ Imran/3: 117); e) a strong wind that can blow away surrounding objects (Surah Ibrahim/14: 18); and f) a wind that destroys disbelievers, such as the people of ‘Ad (Surah Al-Ahqaf/46: 24, Surah Al-Haqqah/69: 6, Surah Fussilat/41: 16, and Surah Al-Qamar/54: 19).

j) The Sun. The Quran uses the term *al-shams*, which is mentioned 33 times (Baqi 1981). There are several functions of the sun from the perspective of the Quran. First, it serves as a means to measure time and the passage of time during the day and night (Surah Al-An’am/6 96 and Surah Yunus/10: 5). Second, the sun’s journey is related to the times of prayer, which begin when the sun moves westward and continues until the end of the
night and dawn (Surah Al-Isra’/17: 78 and 79). Third, the sun guides tasbih (glorification) at sunrise and sunset. This instruction is intended to encourage us, as the followers of the Prophet Muhammad, to constantly remember Allah at all times (Surah Taha/20: 30).

k) Moon, or al-qamar. The Quran mentions the term al-qamar 27 times in its singular form (mufrad). It is also mentioned once in its indefinite form or ism nakirah (Surah Al-Furqan/25: 61), and the rest are in its definite form. The term al-Qamar is also the name of a chapter with 55 verses in the Makki surahs category (revelations received in Mecca). The naming of this chapter is due to the information regarding the splitting of the moon, which some scholars consider to be one of the miracles of Prophet Muhammad. In contrast, others believe it will occur on the Day of Judgment (Shihab 2007).

l) Stars, or al-buruj. This term is mentioned seven times, and its derivatives are in the Quran. Etymologically, al-Burj means castle (qasr) and fortress (hisn). Both structures (castle and fortress) are built to be visible on Earth. The meanings of al-qasr and al-hisn are contextually used in Surah An-Nisa’/4: 78. Meanwhile, in Surah Al-Hijr/15: 16, Surah Al-Furqan/25: 61, and Surah Al-Buruj/85: 1, al-buruj does not refer to literal castles and fortresses on Earth, but rather, it connotes stars and planets in the sky (Shihab 2007).

m) Mountains, or al-Jabal. The Quran mentions the term al-Jabal 41 times with its derivatives in 34 chapters. Sometimes, the term does not mean 'mountain' but is interpreted as a 'large group of people' or 'many people.' Due to the large number of people, the narrative is likened to a mountain. The term jibillan appears in Surah Yasin/36: 62, and al-jibillah in Surah Ash-Shu'ara’/26: 184. The remaining 39 instances of the term are in its singular form or ‘mufrad’ (Jabal) six times in four chapters and its plural form (jibal) 33 times in 30 chapters.

From the semantic account of ecology above, it can be understood that the Quran broadly explains the concept of the environment, including the environment on Earth and in outer space. The balance of the ecosystem correlates with what exists beyond the Earth's atmosphere. Therefore, maintaining the sustainability of the environment, both on Earth and beyond, is a human duty, as implied in the Quran.

3) The Environmental Crisis Issues

According to Wisnu Arya, the Earth's existence has lasted for millions of years with periodic cycles of change, whether naturally occurring or with human intervention. Human involvement in these changes has created negative effects, often damaging the environment due
to the lack of control in usage and utilisation. Furthermore, when considering a dichotomous perspective that nature is a separate entity from humans or an anthropocentric view that places humans at the centre of the natural system, there is a tendency towards exploiting nature, which often leads to a lack of responsibility for the environment (Wardhana, 1995).

Two factors can disrupt the balance of the living environment: First is internal damage, which is a natural process that is difficult to avoid when it occurs. Various natural disasters in Indonesia have caused environmental damage. Notable events include the large earthquake and high tsunami waves in Aceh (2004), disasters in Nias, Sumatra (2005), the earthquake in Yogyakarta (2006), the Merapi eruption in Yogyakarta (2010), the Mount Kelud eruption in East Java (2014), and the earthquake, tsunami, and liquefaction in Palu and Donggala (2018). These are all natural phenomena that have occurred and quickly changed the shape of the Earth’s surface.

Second, external damage arises from human involvement in seeking greater comfort and quality of life (Wardhana 1995). This includes various forms of pollution such as air, water, soil, and noise pollution due to the real consequences of industrial areas. Urban flooding occurs easily due to the need for adequate water absorption, poor drainage systems, and spatial and building management that does not consider the environment. Mistakes in managing and using river basins and so on also contribute. Flooding and landslides also occur frequently due to deforestation, illegal mining and logging, improper waste disposal, and even reckless disposal. All these factors contribute to pollution and environmental damage.

From the exposition above, it can be stated that, on the one hand, environmental damage occurs due to natural factors. However, human involvement and intervention also significantly contribute to environmental and natural degradation. This involvement is linked to the human psyche and mental state, leading to destructive behaviours such as greed, taking what is not rightfully theirs, justifying any means to achieve desires, acting unjustly, ungratefully, disobediently, hypocritically, and various other forms of iniquity that may invite calamities and disasters. Furthermore, when natural disasters occur, they automatically cause environmental damage. Regarding this, it has been explicitly and implicitly explained by Allah in Surah Ar-Rum (30:41):

**Meaning:** “Corruption has spread on land and sea as a result of what people’s hands have done so that Allah may cause them to taste the consequences of some of their deeds and perhaps they might return to the Right Path.”
The term *fasad* in the above verse connotes everything related to destruction. Al-Asfahani explains that *fasad* refers to a departure from a minor or major balance. This term can also refer to physical and spiritual matters and related concepts. The opposite of *fasad* is *salah*, which implies beneficial (Ashfani, t.th). Quraish Shihab elaborates on the meaning of this term to include robbery, security disturbances, and murder (Shihab, 2001). Ibn Kathir asserts that this verse guides and provides information on the decrease in crop yields and fruits due to human misdeeds on Earth. Citing Abu Aliyah, Ibn Kathir states that whoever disobeys Allah on earth contributes to destruction, as obedience to Allah ensures the preservation of the heavens and the earth (Katsir, 1998). In a different view, Al-Maraghi notes that the emergence of destruction in the world is a consequence of every invading force during wars, including warships and submarines. This narrative also emphasises that humans who have committed destruction and injustice have led to an imbalance and distortion of the natural order (Maraghi, 1946).

The interpretation of the verse above provides an understanding that ecological damage and its systems (ecosystems) are inseparable from the contribution of human beings who fail to pay attention to environmental and natural conservation. Similarly, interpreters have explained that environmental damage and crises are not always the result of direct physical actions by humans—such as deforestation, illegal hunting of fauna, and improper disposal of waste—but also stem from non-physical actions, including greed, unjust behaviour, idolatry, hypocrisy, disobedience, and various other forms of iniquity and sin committed by humans. Even if only a few individuals carry out these actions, they can lead to calamities affecting many people or on a larger scale.

Causing harm to nature and the environment can be categorised as a sin that is at a level below the sin of opposing Allah and His Messenger. This is indicated in Surah AlMaidah (5:33), which threatens punishment up to the death penalty. The severity of the punishment aligns with the extent of environmental damage caused by the individual's actions, including eventual punishment on the Day of Judgment. Allah says:

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إِنَّمَا جَزَاءُ الَّذِينَ يُحَارِبُونَ اللَّهَ وَرَسُولَهُ وَيَسَعُونَ فِي الْأَرْضِ فَاسَادًا أنَّ يُقَتَّلُوا أَوْ يُصَلَّبُوا أَوْ يُقَطَّعُ أَيَّادِهِمْ أَوْ أَرْجُلَهُمْ مِنْ خِلَافٍ أَوْ يَنَفَّوْنَ مِنَ الْأَرْضِ ذَٰلِكَ لَهُمْ خِزَاءٌ فِي الدُّنْيَا وَلَهُمْ فِي الْأَخِرَةِ عَذَابٌ عَظِيمٌ
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Meaning: “Indeed, the penalty for those who wage war against Allah and His Messenger and spread mischief in the land is death, crucifixion, cutting off their hands and feet on opposite sides, or exile from the land. This `penalty` is a disgrace for them in this world, and they will suffer a tremendous punishment in the Hereafter.”
The punishment that humans may face in this world as a consequence of damaging actions includes suffering through hostile environmental factors such as hurricanes and typhoons, extreme weather causing heavy rainfall, global warming, flash floods, and other such events (Surah Al-Rum 30:41). Moreover, acts of destruction upon nature committed by humans can result in the revocation of their ownership and control over the natural world. Allah is very explicit in forbidding humans from causing damage to the earth, as destructive behaviour, including harming nature, is both an evil and oppressive act that leads to harm for other humans (Surah Al-Ma'idah 5:32).

4) Conservation of the Environment and Its Re-actualisation from the Perspective of the Quran and Hadith

Human beings were created as caliphs and are responsible for nurturing and maintaining the balance of the natural world. This is an integral part of worship and servitude to Allah. This responsibility is a delegation of authority from Allah to His creations, enabling them to carry out their tasks within the defined realm and place of duty, which is this world (Shihab, 2001). Therefore, humans must adhere to Allah's guidance in executing this duty. This is mentioned in Surah Al-Baqarah 2:30:

وَإِذَّ قَالَ رَبُّكَ لِلْمَلَائِكَةِ إِنِّي جَاعِلٌ فِي الْأَرْضِ خَلِيفَةً قَالُوا أَتَجُعَلُ فِيهَا مَنْ يُفْسَدُ فِيهَا وَيَسْفَكُ الدَّمَا وَنَحْنُ نُسَبِّبَ نَسِبَهُ بِحَمَادَكَ وَنَقَدْسَانَ لَكَ قَالَ إِنِّي أَعْلَمُ مَا لَا تَعْلَمُونَ

Meaning: Remember when your Lord said to the angels, “I am going to place a successive human authority on earth.” They asked Allah, “Will You place in it someone who will spread corruption there and shed blood while we glorify Your praises and proclaim Your holiness?” Allah responded, “I know what you do not know.”

Here, we can perceive Allah's message and statement that the appointment of humans as caliphs on Earth is a justified decree, as Allah is all-knowing and understands that humans are not only assigned a task but are also equipped with the ability to carry out this duty and the trust of being a caliph. Furthermore, humans are His perfect creation among all other creatures. With divine potential and innate disposition, humans can execute this duty by developing strategies, creating and innovating, sharing progressive ideas, and implementing them in tangible actions (Shihab, 2003). However, if humans act contrary to this, it represents a loss and can invoke Allah’s wrath, as mentioned in Surah Fatir 35:39:

هُوَ الَّذِي جَعَلَكُمْ خَلِيفَ فِي الْأَرْضِ فَمَنْ كَفَرَ فَعَلَىٰهُ كُفَّارٍ وَلَا يَزِيدُ الْكَافِرِينَ كَفَّارَهُمْ عَدَدَهُمْ إِلَّا مَقَاتًا وَلَا يُزِيدُ
Meaning: “He is the One Who has placed you as successors on earth. So whoever disbelieves will bear the burden of their own disbelief. The disbelievers’ denial only increases them in contempt in the sight of their Lord, and it will only contribute to their loss.”

Here, we can capture the message that Allah has bestowed upon humans the potential as a gift to manage and create prosperity on Earth. The use of the plural form of *khalaif* in the verse above suggests that the success of the caliphate's duties can only be achieved through collaborative and collective efforts (Shihab, 2001). Mutual support, care, and advice are key points in successfully protecting and preserving the natural environment. However, suppose there is no longer a sense of care and responsibility towards a healthy environment among individuals. In that case, it can result in negative consequences for both nature and human life itself (Rodin, 2017).

There are five aspects that humans, as caliphs on Earth, should focus on in carrying out their duties and responsibilities about environmental conservation:

a) **Maintaining the cleanliness of the environment**

Islam is a religion that emphasizes cleanliness, which is even a core concept in the earliest legal texts (fiqh books). This signifies the importance of cleanliness as a fundamental part of Islamic teachings and a necessity in human daily life, as supported by *Surah al-Baqarah* 2:222.

وَبَسَّارُونَكُمْ عَنِ المَحِيضِ ۖ وَلَيَأَتِنَّكُمْ النَّاسُ فِي الْمَحِيضِ ۖ وَلَا تَقَرْبُوهُنَّ حَتَّىٰ يَطَهُّنَّ فَذَا أَطَهَّنَّ فَأَتُوهُنَّ مِنْ حَيَّاثَا أَمُرَكُمُ اللَّهُ ۚ إِنَّ اللَّهَ يُحِبُّ التَّوَابِي نَ وَيُحِبُّ النَّظَرَةَ رِينَ

Meaning: “They ask you ‘O Prophet’ about menstruation. Say, “Beware of its harm! So keep away, and do not have intercourse with your wives during their monthly cycles until they are purified.1 When they purify themselves, then you may approach them in the manner specified by Allah. Surely Allah loves those who always turn to Him in repentance and those who purify themselves.”

In the verse above, Allah shows His love for those who seek both inner spiritual and outer physical cleanliness (i.e. repentance). The context of cleanliness here can be considered an act of worship and morality in all its aspects, which should be practically applied rather than merely theoretical. This can educate humans to adopt a clean lifestyle. Believers will certainly maintain their cleanliness and surroundings, as cleanliness is integral to faith. Thus, in addition to the quality and quantity of ritual worship being a measure of faith, perfect faith can also be associated with the ability to maintain personal and environmental cleanliness. The Prophet Muhammad said, according to Abu Malik al-Ash'ari, as reported by Imam Muslim:
In the hadith mentioned above, the Prophet emphasises that cleanliness is crucial for environmental conservation and is part of a person's faith. From this, we understand how normative Islamic regulations guide humans to maintain cleanliness, including efforts towards environmental conservation.

In everyday life, we often encounter bad habits among people, such as littering indiscriminately. Some dispose of household waste in sewers and drains, and even industrial waste is dumped into rivers. These behaviours result in obstructed water flow in sewers and polluted rivers and threaten the availability of clean water for fauna, potentially leading to their death (Pratikno, 1977). When a lack of cleanliness is coupled with community indifference, it can lead to natural disasters, such as floods during the rainy season, indirectly causing environmental damage. Thus, the Prophet Muhammad's PBUH warning about the importance of a clean environment, as narrated by Muslim from Sa'id bin al-Musayyab, holds significant weight:

وَلَسْلَمَ الطُّهُورُ شَطأرُ الْأِيمَان

Meaning: "From Abu Malik al-Ash'ari, who said: The Prophet Muhammad (peace be upon him) said: Cleanliness is a part of faith." (Narrated by Muslim)

In this hadith, the Prophet PBUH commands his followers to constantly maintain the cleanliness of their surroundings to avoid resembling the ways of the Jews. Cleaning the environment contributes to health and comfort in everyday life. However, it is also considered a task loved by Allah and an aspect of faith, as reflected in the Quranic verse and hadith mentioned earlier.

b) **Maintaining the Balance of Nature**

When exploiting the natural environment, humans must consider preserving the balance of nature, the environment, and existing habitats without causing harm. This is by the words of Allah in Surah Al-Mulk [67]: 3:

الَّذِي خَلَقَ سَبأعَ سَمَاوَاتٍ طِبَاقًا ۖ مَا تَرَىٰ فِي خَلَقِ الرَّحْمَانِ مِن أَيِّهَا الْجَوَّامُعُ ۖ فَارَجَعِ اللَّطُورَ ۗ هَلْ تَرَى مِن فَطُورٍ

Meaning: "The Prophet Muhammad, peace be upon him, said: 'Indeed, Allah is good and loves goodness, He is pure and loves purity, He is generous and loves generosity, and He is honourable and loves honour. Therefore, cleanse your environment, and do not imitate the ways of the Jews.'"

In this hadith, the Prophet PBUH commands his followers to constantly maintain the cleanliness of their surroundings to avoid resembling the ways of the Jews. Cleaning the environment contributes to health and comfort in everyday life. However, it is also considered a task loved by Allah and an aspect of faith, as reflected in the Quranic verse and hadith mentioned earlier.
Meaning: Who created seven heavens, one above the other. You will never see any imperfection in the creation of the Most Compassionate. So look again: do you see any flaws?

Thematically, this verse is part of a group of three verses (3-5) that explain the manifestations of Allah's power. In the third verse, Allah displays His power by creating seven heavens in a layered structure and then commands His servants to observe the balance of the natural world He has created. In the subsequent verses (4 and 5), Allah reiterates that there is not the slightest imperfection in His creation. As a form of the perfection and equilibrium of His creation, Allah has adorned the heavens with radiant stars, resembling lamps illuminating settlements at night. For those who reject and commit iniquities on Earth, Allah threatens and prepares a severe punishment and entrance into Hell.

Based on this verse, the existence of the natural world is created with harmony and balance, allowing nature to function according to the purpose of its creation. An imbalance in the creation of nature would cause the inhabitants of a planet to endure hardships, potentially resulting in collisions between planets. Creating various creatures that have reciprocal relationships with each other—such as humans, animals, and plants in the process of photosynthesis—can help provide and contribute to happiness in life on Earth (Shihab, 2001).

The principle of balance and harmony, as seen in the creation of nature, must be realised by humans when interacting with the natural world or the environment. While humans have the right to utilise natural resources, this does not permit them to damage or even destroy the ecological balance that Allah has established in such a beautiful and harmonious manner (Rodin, 2017). Therefore, human consumption of natural resources should be at most reasonable needs, as it is important to consider the sustainability of life, the preservation of nature, and the equilibrium of ecosystems.

To maintain this balance in nature, humans must adhere to a fair and moderate approach and avoid excessive behaviour. Humans tend to deviate, become negligent, and cause destruction when they become excessive. A just, moderate, and balanced approach enables individuals to address challenges—whether material or immaterial, environmental or human-related, across all aspects of life (Qardhawi, 2002). By adopting this fair and moderate approach, Allah's balance within a given environment will persist and remain harmonious.

c) Reforestation through Tree Planting

Reforestation refers to the process of replanting trees on land that was previously forested but has been cleared or depleted. Therefore, reboisasi falls under the category of reforestation. Reforestaion, which involves planting trees and farming, is referred to as
reforestation in the field of geography. Reforestation is the practice of planting on vacant land outside forest areas, particularly on land owned by the people, with hard plants such as various types of forest trees, fruit trees, crops, green manure crops, and forage grasses. The purpose of planting is to restore, maintain, and enhance the fertility of the land. In the Quran, Surah al-An’am [6]: 99, Allah says:

وَهُوَ الَّذِي أَنَزَلَ مِنَ السَّمَاءِ مَاءً فَأَخَرَجَ مِنْهُ خَضِرًا فَأَخَرَجَ مِنْهُ حَبًّا مُتَرَاكِبًا وَمِنَ النَّخالِ مِنْ طُلعَهَا قِنَّوَانٌ دَانِيَةٌ وَجَنَّاتٍ مِنْ أَعْرَابٍ وَالزَّيَاتُونَ وَالرُّمَّانَ مُشَابِهٌ وَغَيْرَ مُتَشَابِهٍ أَنظَرُوا إِلَيْهِمْ إِنَّ فِي ذَٰلِكُمْ لَهُمْ كُبْرَىٰ قَوْمٌ يُؤْمِنُونَ

Meaning: “And He is the One Who sends down rain from the sky—causing all kinds of plants to grow—producing green stalks from which We bring forth clustered grain. And from palm trees come clusters of dates hanging within reach. ‘There are also gardens of grapevines, olives, and pomegranates, similar ‘in shape’ but dissimilar ‘in taste’. Look at their fruit as it yields and ripens! Indeed, in these are signs for people who believe.”

Thematically, this verse is part of a group of three verses (97-99) that explain the command to recognise the greatness of Allah through His creation. In the previous verses (97 and 98), Allah calls upon knowledgeable and insightful people to reflect on all the animals and humans created by Allah without any assistance. Then, in this verse, Allah demonstrates to the believers that a tangible example of His greatness is the rain descending from the sky, which then fosters the growth of various plants. These plants turn green, and from them emerge abundant fruits.

In his exegesis, al-Marāghī interprets the phrase habbān mutarākibān in this verse as referring to plants branching from the main stem that produce seeds, such as creeping stems and woody stems. From these green and branching plants, Allah produces abundant grains over time (Maraghi 1946). In contrast, al-Sa’dī understands it as referring to different types of plants, such as barley, wheat, corn, rice, and other plant varieties. These plants yield a large quantity of grains in one season, which humans use for sustenance in their daily lives. They also use the seeds for replanting (Sa’di 2002).

Three important points can be noted from the explanation above. First, Allah demonstrates His greatness by creating seeds or fruits from the beginning to maturity. Second, water is crucial in helping various plants grow and bear fruit abundantly. Third, reforestation or afforestation can aid in environmental conservation and the utilization of its products, including fruits, leaves, and wood.
The Prophet Muhammad categorised those who engage in reforestation as performing charity, as recorded in the narration of al-Bukhari:

عَنْ أَنَسِ بْنِ مَالِكٍ رضِيَ اللَّهُ عَنْهُ قَالَ رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ مَا مِن مُسْلِمٍ يَعْرَجْ عَرْجًا أَوْ يَزَرَعْ زَرَاعًا فَيَأَكُلُّ مِنْهَا طَيْرٌ أَوْ إِنْسَانٌ أَوْ بَهْيَةٌ إِلَّا كَانَ لَهُ بِهِ صَدَقَةٌ

Meaning: The Prophet Muhammad stated, "A Muslim who plants a tree or sows seeds and then a bird, a human, or an animal eats from it is considered to be giving charity" (HR. al-Bukhari).

This means that planting trees or reforestation can be understood as charity. Each tree or plant cultivated and nurtured will grow and benefit Allah's creations, including humans and animals. Therefore, the benefits derived from such cultivation are equivalent to charity and lead to goodness and rewards from Allah. Furthermore, Allah's statement in Surah al-An'am/6:99 supports the effort and undertaking of reforestation or greening. This can be achieved with some fundamental considerations, including benefits and aesthetics.

a. Consideration of benefits, as discussed in Surah 'Abasa/80: 24-32

فَلَأيَنَظُٰرِ الَأَنَسِ إِلَى طَعَامِهِ (24) أَنَسَ تَأَمَّنُوا أَنَسِ إِلَى طَعَامِهِ (25) فَأَنَبَتَنَا الْأَرْضَ شَقِّيَـتًـا (26) فَأَنَبَتَنَا فِيهَا حَبًّا (27) وَعْنَاءَ (28) وَزَّيَّتُونَا وَنَحْلَا (29) وَحَدَائِقَ غَلْبًا (30) وَفَضَاخِمًا وَأَيَا (31) مَعَنَّا لَكُمْ وَلَأَدْعَمْكُمْ (32)

Meaning: Let people then consider their food. how We pour down rain in abundance and meticulously split the earth open for sprouts', causing grain to grow in it, as well as grapes and greens, and olives and palm trees, and dense orchards, and fruit and fodder—all as a means of sustenance for you and your animals.

According to al-Maraghi in his exegesis, the entire tree provides benefits. Wood can create household items such as tables and chairs, shelves and cabinets in various forms. It can also be used as firewood, and its fruit can be consumed as food by both humans and animals. The wood can be used to make furniture and other household goods, as well as various tools for work, and can serve as fuel for cooking. The fruit can be eaten and consumed by humans, livestock, and other animals (Maraghi 1946).

b. Consideration of beauty, Surah al-Naml/27:60:

أَمَّنِ خَلَقَ السَّمَاوَاتِ وَالْأَرْضَ وَأَنزَلَ لَكُمْ مِنَ السَّمَاءِ مَاءً فَأَنَبَتَنَا بِهِ حَدَائِقَ ذَاتَ بَهْجَةٍ مَا كَانَ لَكُمْ أَنَّ تُبْنَوُا شَجَرَهَا

Meaning: Or ask them, “Who created the heavens and the earth, and sends down rain for you from the sky, by which We cause delightful gardens to grow? You could never
cause their trees to grow. Was it another god besides Allah?” Absolutely not! But they are a people who set up equals ‘to Allah’!

According to Quraish Shihab, the term *hadaiqa dzata bahjah* means a beautiful garden surrounded by a fence. Quoting al-Biqa’i, the fence is interpreted as dense trees and plants that form a natural barrier around the garden (Shihab, 2001). Meanwhile, Hamka interprets the term as referring to a beautiful vineyard, as grapevines are relatively easy to harvest and need protection from damage and theft; thus, a fence is placed around the trees (Hamka, 1984). Ibn Katsir interprets the term *hadaiqa dzata bahjah* as gardens with magnificent scenery (Katsir 1998). Al-Qurtubi and Al-Baghawi similarly explain the term as gardens that appear beautiful and attractive to behold. They also refer to al-Farra,’ who interprets the term as gardens with fruit surrounded by a fence, protecting the garden from unwanted intrusions (al-Qurthubi, 2006).

Meanwhile, al-Sa’di interprets the phrase as a scene of beauty, with an expanse of trees bearing many sweet fruits (Sa’di, 2002). The writer emphasizes that the consideration of beauty aligns closely with the consideration of benefits, as by Allah’s will, rain descends from the sky, causing plants to grow beautifully and creating a visually stunning landscape.

5) Revitalising Barren Land

When there is unused land and a desire to cultivate it, this expresses human awareness of treating the earth responsibly. This process is akin to rehabilitating and utilising land to promote environmental conservation. The term "barren land" refers to abandoned and unowned land, dry and waterless, with no structures built upon it. Allah states in Surah Yasin [36:33]:

وَءَايَةٌ لَّهُمُ ٱلْأَرأضُ ٱلأمَيأتَةُ أَحأيَيأنَٰهَا وَأَخأرَجأنَا مِنأهَا حَبًّا فَمِنأهُ يَأأكُلُونَ

Meaning: There is a sign for them in the dead earth: We give it life, producing grain from it for them to eat.

The verse above illustrates a barren earth with no plants or vegetation. Then, through His decree, Allah sends rain, turning the arid, dry soil into fertile land where various plants and vegetation begin to grow. The lush growth of plants yields benefits in the form of food that both humans and animals can consume. According to Quraish Shihab, this verse implicitly indicates human involvement in reviving the dead earth. This human contribution is beneficial in managing vegetation for environmental balance and ecosystem stability (Shihab, 2001).

Buya Hamka explains that dead earth can be categorised into two conditions: periodic dead earth (dependent on seasons) and long-term dead earth (lasting for thousands of years). It
is stated that periodic dead earth occurs during the dry season when the earth becomes parched, causing many plants to wither due to a lack of water and ultimately die. In contrast, long-term dead earth refers to regions such as the vast desert expanses in South Africa or the Arabian Peninsula. Reviving dead land is a narrative conveyed from the words of Prophet Muhammad as follows:

"عَنَّ سَعِيدِ بُنَّ زَيْدٍ عَنَّ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ قَالَ مَنَ أَحَيَا أَرْضًا مَيَّةً فَهِيَ لَهُ "

Meaning: Narrated by Sa’id bin Zaid from the Prophet (PBUH): "Whoever revives dead land, then that land is his property."

Reviving dead land by planting and nurturing it until it yields benefits is a virtuous act. It is encouraged as it is an act of goodness and a part of efforts to develop agriculture, conserve the environment, and increase production sources (Haroen 2007). However, anyone who causes harm by indiscriminately cutting down trees will certainly have a negative impact on the environment and nature and will face the threat of sin in the eyes of Allah. The Prophet (PBUH) stated in a hadith narrated by the Companion Abdullah bin Hubshi:

"عَنِ عَبَّادِ اللَّهِ بِنِ حُبَشِي قَالَ رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ مَنْ قَطَعَ سِدَارَةً صَوَّبَ اللَّهُ رَأِسَهُ فِي النَّارِ"

Meaning: Narrated by 'Abdullah bin Hubshi: The Prophet (PBUH) said, "Whoever cuts down a lote tree, Allah will plunge his head into the fire of Hell."

From this hadith, it can be understood that anyone who cuts down trees (even though the text specifically refers to a lote tree) will face Allah's threat of Hellfire because trees along roadsides can provide shade and serve as shelter. This explicit prohibition, which carries a threat of punishment, is part of efforts to preserve the existence of trees that benefit both humans and the surrounding environment. Thus, reviving dead land is called *ihya’ al-mawat*, which involves utilising previously unused and unworked land for habitation or agriculture (Suhendi, 2010). The management of dead land to make it functional and beneficial can be carried out according to individual practices. Examples of the actualisation of *Ihya’ al-Mawat* include:

a) Creating soil fertility, treating barren soil by spreading suitable chemical or organic fertiliser.

b) Planting. In areas with fertile soil yet to be cultivated, one can plant specific trees and other plants such as coconut, rubber, and teak trees. This marks the land as owned.

c) Establishing boundaries and installing fencing, especially in large areas of land, to clearly define ownership and control for farming or building housing, etc.
d) Digging trenches, particularly on owned land and gardens. Trenches indicate to others that the garden has an owner and caretaker (Suhendi, 2010).

Thus, managing dead land through Planting is a good deed in line with the spirit of Islam. Managing dead land in this way will benefit the manager in developing agriculture. Moreover, managing dead land contributes to environmental conservation efforts and increases economic productivity.

From this, properly managing dead land through planting is a commendable action that aligns with the spirit of Islam. If dead land is planted and managed in this way, it will undoubtedly benefit the manager in developing agricultural practices. Also, managing dead land contributes to environmental conservation efforts and increased economic production sources. Ecology is a scientific discipline that explores the mutualistic symbiotic relationship between nature and living beings. The Quran employs several terms related to ecology, including: environment (al-biah), the whole of nature (al-'alamin), the sky or cosmos or the universe (al-sama'), the earth (al-ard), humans (al-insan), fauna (al-an'am or dabbah), flora (al-nabat or al-harts), water (ma'), air (al-rih), sun (al-shams), moon (al-qamar), stars (al-buruj), and mountains (jabal).

The study of environmental conservation is expressed in the Quran as God's command for humans to care for and preserve the environment properly. Several recommendations from the Quran and Hadith regarding environmental conservation include maintaining environmental cleanliness, upholding the balance of nature, planting trees or reforestation, and managing dead or vacant land. Factors contributing to environmental damage include natural events and human intervention and behaviour, such as immoral acts, injustice, wickedness, and kufr, which can lead to natural disasters (manifestations of God's wrath in the world) and the threat of punishment in the hereafter.

4 CONCLUSION

Based on the results of field research and the review of secondary data, the following conclusions can be formulated: (a) From the socio-eco-religio-cultural aspect, forest and land fires in Riau Province occurred due to a prolonged and intense El Niño event. This period witnessed the destruction of millions of hectares of forest and land, leading to substantial losses, particularly in the forestry and plantation sectors, and affecting flora, fauna, rivers, lakes, and valleys. The resultant haze caused short-term socio-economic damage to the tourism sector and health throughout the region. Two key points highlight conservative evidence of carbon loss.
despite the significant carbon emissions, one of the major pollution causes. (b) The primary factor behind forest fires is a prevailing anthropocentric perspective driven by economic interests, which must be shifted to a socio-eco-religio-cultural approach that prioritises environmental safety, cultural and religious values, and sustainable economic development. (c) The anthropocentric paradigm has led to severe forest fires, a recurring phenomenon for thirty years. The most significant impact of these fires has been the resulting smoke haze pollution, which disrupts various aspects of life. Forest fires disturb human activities and can also negatively impact productivity and income. Forest and peatland fires have wide-ranging effects, including economic, ecological, political, international relations, social, cultural, health, and religious repercussions. This anthropocentric perspective must be replaced with a socio-eco-religio-cultural paradigm.

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