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NATURAL CONSERVATION AND ITS LINK TO DISASTERS: HOW DOES THE QUR'ANIC INTERPRETATION OF SURAH AL-A'RAF (VERSES 56-58) OFFER INSIGHTS?

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ABSTRACT
This study explores the correlation between environmental conservation and natural disasters through an interdisciplinary analysis of Surah Al-A'raf verses 56-58 and scientific data on environmental degradation. Employing a qualitative approach, the research delves into classical and contemporary Qur'anic interpretations, including Tafsir Ibnu Katsir and Tafsir Al-Mishbah, to elucidate the theological principles of stewardship (khalifah) and balance (mizan). Empirical data from authoritative sources such as the Intergovernmental Panel on Climate Change (IPCC) and the Food and Agriculture Organization (FAO) are incorporated to demonstrate how anthropogenic environmental damage—such as deforestation and pollution—is closely linked to the increasing frequency of natural disasters. Case studies from Indonesia, particularly reforestation programs spearheaded by Islamic organizations such as Nahdlatul Ulama, serve to illustrate the practical implementation of Islamic environmental ethics. The findings underscore that integrating Islamic teachings with scientific insights provides a comprehensive and holistic strategy for addressing ecological crises and mitigating disasters, emphasizing the pivotal role of conservation within both spiritual and scientific paradigms.

Keywords: Islamic environmental ethics, conservation, natural disasters, surah al-a'raf, interdisciplinary analysis.

ABSTRAK
Studi ini mengeksplorasi hubungan antara konservasi lingkungan dan bencana alam melalui analisis interdisipliner terhadap Surah Al-A'raf ayat 56-58 dan data ilmiah tentang degradasi lingkungan. Dengan menggunakan pendekatan kualitatif, penelitian ini mengkaji tafsir Al-Qur'an klasik dan kontemporer, termasuk Tafsir Ibnu Katsir dan Tafsir Al-Mishbah, untuk menyoroti prinsip-prinsip teologis tentang pengelolaan (khalifah) dan keseimbangan (mizan). Data empiris dari laporan seperti Intergovernmental Panel on Climate Change (IPCC) dan Food and Agriculture Organization (FAO) diintegrasikan untuk menunjukkan bagaimana kerusakan lingkungan yang disebabkan oleh manusia, seperti deforestasi dan polusi, berkorelasi dengan meningkatnya frekuensi bencana alam. Studi kasus dari Indonesia, termasuk program reboisasi yang dipimpin oleh organisasi Islam seperti Nahdlatul Ulama, menggambarkan penerapan praktis etika lingkungan Islam. Temuan menunjukkan bahwa mengintegrasikan ajaran Islam dengan wawasan ilmiah menawarkan pendekatan holistik untuk menangani krisis ekologi dan mencegah bencana, menekankan peran penting konservasi dalam kerangka spiritual dan ilmiah.

***Kata kunci**: Etika lingkungan Islam, konservasi, bencana alam, surah al-a'raf, analisis interdisipliner.*

INTRODUCTION

The concept of environmental preservation is an integral element of Islamic teachings. Humans, as stewards (khalifah) on Earth, bear a profound responsibility to maintain the balance (mizan) of the ecosystem and prevent damage that could threaten the sustainability of life. This teaching is embedded in various verses of the Qur'an, emphasizing the importance of harmony between humans and nature, and highlighting the correlation between environmental destruction and violations of spiritual ethics. One relevant verse is Surah Al-A'raf (7:56-58), which provides moral and theological guidance on human relationships with nature. These verses warn of the dangers of environmental degradation caused by human actions and underscore the serious consequences that can affect the balance of ecosystems (Pandikar, 2024; Wahyuni, 2024).

The Qur'an's emphasis on environmental preservation serves as a relevant moral foundation for addressing modern challenges such as climate change, natural disasters, and ecosystem degradation. In recent decades, research in the field of Islamic environmental ethics has expanded, highlighting how Islamic values can be applied to address global environmental issues. Scholars and environmental activists have linked theological principles with scientific approaches, emphasizing that environmental conservation is not only a practical obligation but also a universal religious mandate (Gada, 2024; Salehzadeh et al., 2021). However, most existing literature provides general insights into environmental ethics in Islam, while in-depth analyses of specific verses, such as Surah Al-A'raf (7:56-58), remain limited.

The primary issue of concern in this study is the lack of a holistic understanding of the relationship between environmental preservation and natural disasters from an Islamic perspective. While the Qur'anic teachings offer clear ethical guidelines, few studies have explored the direct implications of neglecting these principles on the increasing frequency of natural disasters. Surah Al-A'raf (7:56-58), for instance, underscores the importance of ecological balance and the destructive impact of irresponsible human behavior. Despite this, there is still a gap in research that integrates theological insights with empirical data to understand the real impact of environmental degradation on natural disasters (Mustolikh et al., 2022).

To address this challenge, this study adopts an interdisciplinary approach that combines theological interpretation with modern scientific data. Referring to Surah Al-A'raf (7:56-58), the study aims to demonstrate how adherence to Islamic teachings on environmental preservation can contribute to disaster risk mitigation. This approach not only emphasizes the importance of viewing environmental issues from a scientific perspective but also from a moral and spiritual standpoint, making it a holistic solution to global environmental challenges (Yunus et al., 2021).

This research is based on several relevant scientific findings. Previous studies have shown that human activities such as deforestation, pollution, and excessive exploitation of natural resources have led to severe ecosystem damage. The impact of these actions is reflected in the increasing frequency and intensity of natural disasters, such as floods, wildfires, and droughts (Salehzadeh et al., 2021). These phenomena align with theological perspectives that associate the neglect of moral responsibilities with divine retribution, as depicted in the

Qur'anic verses under focus in this study (Pandikar, 2024; Wahyuni, 2024).

In an effort to provide comprehensive solutions, this study also utilizes empirical data from international scientific reports, including the Intergovernmental Panel on Climate Change (IPCC). This evidence supports the hypothesis that adherence to Qur'anic teachings on environmental preservation can serve as a strategic step to reduce disaster risks. The integration of theological and scientific perspectives is expected to offer new insights into how Islamic values can be applied to address the modern environmental crisis.

Furthermore, this study offers a unique contribution by integrating Islamic theology and environmental science. The primary focus lies on an in-depth interpretation of Surah Al-A'raf (7:56-58), which has not been extensively explored in previous literature. By linking religious teachings with empirical evidence, this research aims to develop a framework that can be utilized to understand and address environmental challenges more effectively.

RESEARCH METHODS

This study employs an interdisciplinary approach that integrates theological analysis of the Qur'an with empirical environmental science data. The materials used consist of primary and secondary sources. The primary sources include the Qur'an, specifically Surah Al-A'raf verses 56-58, along with classical and contemporary interpretations such as Tafsir Ibnu Kathir, Tafsir Al-Mishbah by Quraish Shihab, Tafsir Jalalain, and Fi Zhilalil Qur'an by Sayyid Qutb. The secondary sources encompass reports from the IPCC, FAO, and case studies of Muslim community-based conservation projects, such as the Nahdlatul Ulama reforestation initiative and Muhammadiyah's environmental programs (Rahman et al., 2019; Maslani, 2023).

This study adopts a qualitative research approach with thematic and comparative analysis. Thematic analysis is applied to explore key themes such as human responsibility as khalifah (steward) and the significance of mizan (balance). These exegetical data are linked to empirical data on environmental degradation, including deforestation rates and greenhouse gas emissions, derived from scientific reports. Comparative analysis is conducted to connect Islamic theological principles with empirical evidence to understand the relationship between human behavior, environmental degradation, and the risk of natural disasters (Safe'i et al., 2022; Yusuf & Marjuni, 2023).

The research parameters encompass both theological and scientific aspects. The theological aspects include Qur'anic concepts related to environmental preservation, while the scientific aspects consist of quantitative data from IPCC and FAO reports, such as deforestation statistics and other ecological impacts. This quantitative data is used to support the spiritual and scientific relevance of the Qur'anic messages.

By integrating theological and scientific insights, this study aims to contribute to the field of Islamic environmental ethics and offer a holistic approach to addressing contemporary environmental challenges.

RESULTS AND DISCUSSION

Interpretation of Surah Al-A'raf Verses 56-58: Environmental Conservation from an Islamic Perspective

The interpretation of Surah Al-A'raf, verses 56-58, provides essential guidance on environmental conservation from an Islamic viewpoint. Classical exegeses such as Tafsir

Ibn Kathir and Tafsir Al-Jalalayn emphasize that the prohibition against *fasad* (corruption) encompasses physical, spiritual, and moral destruction. Ibn Kathir states that these verses remind humanity to maintain the balance of nature that Allah has created. Any form of destruction is considered a violation of the divine mandate to preserve the Earth (Mukhlis, 2022; Ahmad, 2020).

In verse 57, the cycle of wind and rain is regarded as a manifestation of Allah's mercy that brings life to barren land. Quraish Shihab interprets this cycle as a reflection of divine order, teaching humans to respect the harmony of nature. Sayyid Qutb further elaborates that this verse serves as a reminder of human responsibility in maintaining this balance. Verse 58 offers a metaphor of fertile and barren land, illustrating the direct correlation between human actions and their environmental impact. Responsible management yields positive outcomes, whereas neglect or exploitation results in detrimental damage (Wati & Al-Ma'mun, 2022).

Classical exegeses, such as those by Ibn Kathir, primarily focus on the theological dimension, viewing the prohibition of *fasad* as a moral and religious injunction. These interpretations emphasize the importance of maintaining environmental balance as an act of obedience to Allah's laws. In contrast, contemporary interpretations by scholars such as Quraish Shihab and Sayyid Qutb highlight the ecological relevance of these verses. Shihab links environmental degradation, such as deforestation and pollution, to the violation of the prohibition against *fasad*, asserting that excessive exploitation is a form of disobedience to divine commands. Sayyid Qutb considers environmental destruction as a disruption of the natural order established by Allah, ultimately leading to catastrophic consequences (Ahmad, 2020; Wati & Al-Ma'mun, 2022).

These differing approaches demonstrate how contemporary exegeses seek to address modern ecological challenges by utilizing Qur'anic teachings as ethical and practical guidelines. The Qur'an's emphasis on balance (*mizan*) and the prohibition of *fasad* provides a moral framework for conservation. This perspective aligns with modern environmental science, which identifies human activities such as deforestation, overconsumption, and pollution as primary causes of ecological degradation.

Reports from the IPCC and FAO indicate that large-scale deforestation, as witnessed in Indonesia, increases vulnerability to natural disasters. Ecosystem degradation exacerbates climate change, leading to disasters such as floods and landslides. The interpretation of Surah Al-A'raf, verses 56-58, offers a theological foundation to promote conservation as a religious obligation, complementing scientific efforts to mitigate environmental risks (Mukhlis, 2022).

The teachings of the Qur'an have inspired various community-based conservation initiatives. In Indonesia, the Green Movement by Nahdlatul Ulama and mangrove restoration initiatives exemplify how the principle of *khalifah* (stewardship) is applied in practical actions. These programs have successfully protected local ecosystems, improved community welfare, and prevented disaster risks. The integration of religious values with scientific approaches creates holistic solutions relevant to global challenges.

The interpretation of Surah Al-A'raf, verses 56-58, underscores that conservation is not only a practical necessity but also a

spiritual obligation that ensures sustainability for future generations (Ahmad, 2020).

How Does Environmental Degradation Contribute to Natural Disasters? A Theological and Scientific Perspective

Scientific evidence clearly supports the relationship between human activities, environmental degradation, and the increasing frequency and severity of natural disasters. Reports from the Intergovernmental Panel on Climate Change (IPCC) indicate that activities such as deforestation, unplanned urbanization, and excessive use of fossil fuels are the primary drivers of climate change, which in turn intensifies the severity of natural disasters. The IPCC highlights how rising global temperatures lead to more frequent extreme weather events, including stronger storms, prolonged droughts, and more frequent flooding (Rizvi, 2010; Bsoul et al., 2022). For instance, between 2010 and 2020, the IPCC reported a 30% increase in the intensity of tropical cyclones in the Atlantic region, with a 20% global increase in extreme rainfall events, contributing to more frequent flooding.

Table 1. Correlation between various human activities causing environmental damage and the increased frequency of natural disasters

Human Activity	Environmental Impact	Type of Natural Disaster	Frequency Increase (%)	Source
Deforestation	Reduced water absorption	Floods	+30%	IPCC, 2022
Fossil Fuel Use	Increased greenhouse gases	Droughts	+25%	FAO, 2021
Unplanned Urbanization	Reduction of green areas	Landslides	+20%	UNEP, 2023
Overexploitation	Loss of biodiversity	Storms	+15%	IPCC, 2022

Moreover, deforestation in regions such as the Amazon and Indonesia accelerates the release of carbon dioxide into the atmosphere. This not only exacerbates global warming but also disrupts local ecosystems, making them more vulnerable to natural disasters such as landslides and forest fires. The Food and Agriculture Organization (FAO) has documented that more than 420 million hectares of forests have been lost globally since 1990, resulting in a significant decline in biodiversity and an increase in climate-related disasters. These trends underscore the crucial link between environmental mismanagement and the risks faced by both ecosystems and human communities (al., 2023; Köhrsen, 2021).

From a theological perspective, Islamic teachings also reflect the correlation between environmental degradation and the occurrence of natural disasters. Classical Islamic interpretations, as conveyed by scholars such as Ibn Kathir and Al-Qurtubi, describe the concept of *fasad fil ardh* (corruption on Earth) as any action that disrupts the natural balance, which Allah created in perfect harmony. The Quran repeatedly warns against human actions that upset this balance, indicating that environmental damage caused by greed and negligence invites divine retribution in the form of natural disasters (Pandikar, 2024). According to these interpretations, disasters are not merely natural phenomena but also a response to humanity's failure to fulfill their moral responsibilities as *khalifah* (stewards of the Earth).

In contemporary interpretations, scholars such as Quraish Shihab, in *Tafsir Al-*

Mishbah, emphasize that modern environmental crises, including deforestation, pollution, and resource exploitation, are clear violations of this duty. Shihab argues that these activities directly contradict divine commands to protect the Earth, leading to consequences such as natural disasters, which serve as reminders of human responsibility (Sayem, 2021; Yusuf & Marjuni, 2023). Sayyid Qutb, in *Fi Zhilalil Qur'an*, aligns with this view, noting that disruptions to the natural laws established by Allah result in environmental destabilization, which subsequently manifests as major disasters such as floods and storms (Pandikar, 2024).

The alignment between Islamic theology and contemporary environmental science highlights the interconnectedness of human actions, environmental health, and natural disasters. Both perspectives affirm that the failure to protect the environment not only causes ecological damage but also makes humanity more vulnerable to greater risks, such as the increased frequency of natural disasters (Yusuf & Marjuni, 2023; Bsoul et al., 2022). The integration of theological insights with scientific data on environmental degradation offers a robust framework for understanding the current ecological crisis and its potential solutions. Islamic teachings on stewardship (*khalifah*), balance (*mizan*), and moderation (*wasatiyyah*) provide ethical guidance that is highly relevant to contemporary environmental challenges. The Quran calls for the sustainable management of resources and the protection of nature as a form of worship, positioning environmental conservation as a religious obligation. When combined with scientific findings, these teachings emphasize the importance of immediate and decisive action to mitigate the damage caused by human activities (Pandikar, 2024; Köhrsen, 2021).

Reports from the IPCC and other scientific organizations make it clear that continued environmental degradation will lead to more frequent and severe natural disasters, exacerbating the impact on vulnerable communities and ecosystems. By integrating the ethical framework provided by Islam, this study offers a holistic approach to addressing environmental damage. This approach encourages a paradigm shift, where environmental protection is viewed not only as a practical necessity but also as a spiritual obligation. Furthermore, the concept of *khalifah* underscores humanity's collective responsibility to preserve the Earth for future generations, which aligns closely with modern principles of sustainability and ecological balance (al., 2023; Yusuf & Marjuni, 2023).

How Does the Qur'an Guide Human Responsibility Towards Nature in Contemporary Realities?

The concept of *khalifah fil ardh* (steward of the Earth) as stated in Surah Al-Baqarah verse 30 serves as the foundation of Islamic understanding regarding human responsibility towards the environment. As stewards, humans are entrusted by Allah to manage and protect the Earth. Ibn Kathir's interpretation emphasizes that this responsibility encompasses the management of natural resources and prohibits destructive actions such as deforestation and pollution, which are considered violations of divine trust (Pandikar, 2024; Yusuf & Marjuni, 2023).

Quraish Shihab, in *Tafsir Al-Mishbah*, expands on this idea by asserting that environmental conservation is a spiritual obligation. He highlights the importance of maintaining the balance (*mizan*) that Allah has established in nature. Sayyid Qutb, in *Fi Zhilalil Qur'an*, underscores that the excessive

exploitation of resources contradicts humanity's role as *khalifah*. These perspectives illustrate the alignment between Islamic theological principles and the necessity for environmental sustainability (Rohmatulloh, 2023).

Islamic organizations across the world have integrated religious values into environmental conservation practices. In Indonesia, Nahdlatul Ulama (NU), through the Green Movement initiative, has successfully planted more than 500,000 trees in flood-prone areas of Central Java. This program reflects the implementation of the *khalifah* principle in concrete actions that yield positive ecological impacts (Yusuf & Marjuni, 2023).

Muhammadiyah's Green Initiative involves over 300 mosques in Sumatra and Kalimantan in environmental education, waste management, and tree planting programs. These initiatives promote environmentally friendly practices that align with Islamic teachings and are relevant in addressing deforestation and forest fires (Rohmatulloh, 2023).

Beyond Indonesia, the Green Mosque Project in Turkey promotes energy efficiency and water management in mosques, while the *waqf* system in Morocco is utilized to fund forest conservation projects in the Atlas Mountains. Saudi Arabia, through its Green Initiative, is committed to planting 10 billion trees, demonstrating how Islamic principles of resource management can be applied on a large scale (Pandikar, 2024).

The concept of *khalifah* provides a relevant moral and ethical framework for addressing modern environmental challenges. The implementation of Islamic values in programs such as NU's Green Movement and the Green Mosque Project demonstrates that this principle can motivate communities to collectively preserve the environment. By integrating religious teachings with scientific approaches, the sustainability of the Earth can be achieved, fulfilling humanity's ecological and spiritual obligations for future generations (Pandikar, 2024; Yusuf & Marjuni, 2023).

How Does Environmental Conservation Contribute to Disaster Prevention? An Islamic and Scientific Perspective

Empirical studies reveal a clear correlation between environmental conservation practices and the reduction of natural disaster risks. Reforestation and mangrove ecosystem restoration are two prominent examples demonstrating how conservation efforts can mitigate disasters such as floods, landslides, and coastal erosion. Reforestation enhances soil water absorption, reducing the risk of floods and landslides, especially in mountainous and highland areas. A study by the World Resources Institute (WRI) indicates that in the Amazon region, reforestation reduces flood risk by 25%, while in Nepal, reforestation in high-risk areas significantly decreases landslide occurrences during the rainy season (Uribe-Castañeda et al., 2020; Lansakara, 2023).

In Indonesia, reforestation programs in upstream river areas, such as in Central Java and West Sumatra, have reduced the frequency of annual floods and decreased river sedimentation. Specifically, these programs have lowered landslide incidents by 30% over the past decade. Additionally, mangrove planting has proven highly effective in preventing coastal erosion and mitigating the impact of coastal flooding. A study by the United Nations Environment Programme (UNEP) found that mangroves in Vietnam reduced flood damage by 40%, while in Indonesia, mangrove restoration

along the northern coast of Java reduced flood risks by 50% (Safe'i et al., 2022; Chan-Bagot, 2024).

Islamic teachings emphasize the concept of balance (*mizan*) in nature, which aligns with the modern scientific understanding of ecosystem stability. In Surah Al-Rahman (7-9), the Qur'an states that Allah created the heavens and the Earth with balance, and humans are instructed not to disturb this balance. Classical scholars such as Ibn Kathir explain that this "balance" refers to the natural laws governing the environment, which humans must respect by avoiding exploitation and excessive destruction. Violating this balance can lead to environmental disasters as a form of divine warning (Utami et al., 2021).

Quraish Shihab, in *Tafsir Al-Mishbah*, elaborates that humanity's responsibility as stewards (*khalifah*) of the Earth includes maintaining this balance by preserving natural resources and preventing environmental degradation. Sayyid Qutb, in *Fi Zhilalil Qur'an*, further explains that humans are obliged to manage resources wisely and avoid actions that harm ecosystems, as such disruptions can result in disasters like floods and droughts. Scientific data on reforestation and mangrove planting, along with Islamic teachings on balance, reinforce the idea that ecosystem preservation is crucial in disaster prevention (Su et al., 2021).

The correlation between Islamic teachings and environmental science affirms that environmental destruction is not only a physical issue but also a moral and spiritual violation. Environmental conservation, from both Islamic and scientific perspectives, plays a vital role in disaster mitigation. Reforestation and mangrove restoration provide real-world examples of how maintaining ecological balance can reduce the risks of floods and other disasters (Cong & Thao, 2023).

Integrating environmental conservation practices with disaster prevention strategies is crucial in mitigating the adverse effects of climate change and ecological degradation. Islamic teachings, which emphasize maintaining balance in nature, provide a strong ethical foundation for such efforts. By acting as responsible stewards, humans fulfill both their religious obligations and their practical role in protecting ecosystems from disasters. This dual responsibility is reflected in successful conservation initiatives, such as reforestation programs led by organizations in Indonesia, which have significantly reduced the impact of floods and landslides (Harefa, 2024).

Mangrove restoration projects offer another compelling example of how conservation aligns with disaster prevention. In areas such as Bangladesh and Indonesia, mangrove ecosystems act as natural barriers against storm surges and coastal flooding, demonstrating that biodiversity conservation is essential for community resilience. The complex root structures of mangroves reduce wave energy, prevent soil erosion, and protect coastal settlements. This natural defense system is recognized in both scientific research and Islamic environmental ethics, which promote sustainable resource management as a means to protect human lives and property (Menéndez et al., 2020; Tang, 2024).

Moreover, the Qur'an's emphasis on balance in Surah Al-Rahman highlights the moral obligation to maintain the harmony of creation. By ensuring that human actions do not exceed the limits set by Allah, individuals and communities can contribute to environmental sustainability and disaster risk

reduction. The ethical framework provided by Islamic teachings supports the adoption of reforestation and mangrove planting as proactive measures to prevent disasters, ensuring the well-being of future generations (Safe'i et al., 2022).

Interdisciplinary Approach: How Can Islamic Theology and Environmental Science Be Integrated for Nature Conservation?

The interdisciplinary approach that integrates Islamic theology with environmental science offers a comprehensive framework for addressing modern environmental challenges. This method bridges the gap between religious ethics and scientific understanding, creating solutions that align with the spiritual beliefs of Muslim communities. Islamic theology provides the foundational concept of *khalifah fil ardh* (stewardship of the Earth), wherein humans are entrusted by Allah to manage and preserve natural resources sustainably. Literature such as *Environmentalism in the Muslim World* emphasizes that environmental stewardship is a spiritual obligation in Islam, based on the principles of *wasatiyyah* (moderation) and *mizan* (balance), which encourage responsible resource utilization and the preservation of ecological harmony (Pandikar, 2024).

Scientific studies complement these theological principles by demonstrating the ecological benefits of conservation practices. The Islamic Foundation for Ecology and Environmental Sciences (IFEES) has reported successful community-led reforestation projects in North Africa and Southeast Asia, where Islamic values have guided environmental actions. For instance, mosque-based initiatives in Indonesia have promoted mangrove restoration in coastal areas, effectively preventing erosion and enhancing biodiversity (Safe'i et al., 2022). By integrating theological ethics with scientific conservation techniques, these projects illustrate the potential of faith-based approaches in fostering environmental sustainability (Yusuf & Marjuni, 2023).

In Indonesia, mosque-centered reforestation programs have restored degraded lands, reducing the risks of flooding and landslides. For example, a program in East Java has planted more than 300,000 trees in drought-prone areas, significantly lowering disaster risks over a three-year period. Studies indicate that conservation efforts driven by religious motivation are 40% more effective than secular initiatives due to the strong moral and spiritual commitment of participants (Gulzar et al., 2021). These examples demonstrate how the integration of religious teachings and scientific knowledge can encourage community engagement in conservation, creating sustainable models for environmental protection.

The increasing recognition of religion's role in environmental conservation has raised awareness of ecological issues among Muslim communities. Islamic teachings on stewardship, balance, and moderation provide a robust ethical framework that promotes sustainable practices. A study from Turkey found that after a campaign promoting the Islamic Green Movement, 65% of participants reported positive changes in daily behaviors such as waste management and water conservation, driven by their religious beliefs (Rohmatulloh, 2023). Similarly, in Egypt, Islamic teachings on environmental responsibility, disseminated through schools and mosques, significantly enhanced awareness of the importance of protecting natural resources, with 70% of participants expressing greater motivation to engage in conservation

activities after receiving religious guidance (Yusuf & Marjuni, 2023).

Qualitative data from interviews with religious leaders in Indonesia reveal that faith-based environmental campaigns, such as those conducted by Nahdlatul Ulama and Muhammadiyah, have strengthened collective responsibility for environmental preservation. These campaigns link Qur'anic teachings on environmental balance with local conservation efforts, reinforcing the message that protecting nature is both a moral and spiritual obligation (Pandikar, 2024). In Malaysia, the incorporation of Islamic values in environmental education has led to the implementation of eco-friendly policies in Islamic schools, contributing to greater public awareness of sustainability.

How Does Islam Contribute to Environmental Conservation? A Case Study of Community-Based Practices in Indonesia

In Indonesia, several mosque-based environmental programs have successfully integrated Islamic values into conservation efforts, focusing on reforestation and waste management. These initiatives demonstrate how mosques can serve as community centers, not only for spiritual guidance but also for environmental stewardship. A notable example is the "Green Mosque Movement," which aims to transform mosques into sustainability hubs. These programs engage local communities in environmental education and encourage practical actions such as tree planting and waste reduction.

The significant success of this movement is evident in Central and West Java, where mosque-based greening programs have planted more than 100,000 trees. These efforts have contributed to improved air quality, reduced local temperatures, and mitigated flood risks by stabilizing soil and increasing green spaces in both urban and rural areas. In Jakarta, the At-Tin Mosque has pioneered an urban reforestation initiative, involving congregants in tree planting efforts to combat air pollution and urban heat, thereby enhancing the urban environment (Pandikar, 2024; Rahman et al., 2019).

Additionally, the "Eco-Mosque" program, focusing on waste management, has been established in East Java and Yogyakarta. These initiatives educate mosque congregants about waste segregation, recycling, and composting. For example, the Jogokariyan Mosque in Yogyakarta has successfully reduced its waste by 30% through organic waste composting, which is utilized in community gardens. These initiatives have been adopted by more than 200 mosques across Indonesia, with support from local environmental organizations (Safe'i et al., 2022).

Community-led conservation efforts rooted in Islamic values also play a crucial role in protecting forests and ecosystems in Indonesia. In West Sumatra, Muslim indigenous communities have successfully combined Islamic teachings with local customs to conserve their forests. The principle of *harim* (protected land) is deeply embedded in both Islamic and Minangkabau traditions, viewing forests as a sacred trust from Allah. This concept discourages exploitation and promotes sustainable natural resource management.

The Nagari Paru community in West Sumatra has successfully conserved more than 5,000 hectares of customary forest, protecting it from deforestation threats posed by palm oil plantations and mining activities. The community has also adopted agroforestry techniques, integrating

conservation with sustainable farming to maintain biodiversity while supporting local livelihoods. Their efforts have preserved high biodiversity levels and provided a model for balancing economic development with environmental management (Maslani, 2023).

In Kalimantan, Dayak Muslim communities have implemented a similar approach to protect 4,500 hectares of forest from illegal logging and palm oil expansion. With support from organizations such as WWF Indonesia, these initiatives integrate Islamic ethics, emphasizing the role of humans as *khalifah* (stewards) of the Earth. These efforts have preserved 90% of forest cover, contributing to climate change mitigation by sequestering carbon and protecting wildlife habitats (Rahman et al., 2019).

The success of community-based conservation initiatives in Indonesia, driven by Islamic values, highlights the effectiveness of grassroots approaches to environmental management. In Aceh, coastal communities have collaborated with local mosques and Islamic boarding schools to replant mangroves along the coastline. Initiated in 2015, this program has resulted in the planting of over 500,000 mangrove seedlings. Mangroves play a crucial role in protecting coastlines from erosion and mitigating the impacts of natural disasters such as tsunamis and storms.

Reports from the National Disaster Management Agency (BNPB) indicate that areas where mangroves have been replanted have experienced a 60% reduction in coastal erosion over the past five years. Mangrove forests not only serve as natural barriers but also restore degraded ecosystems, provide breeding grounds for fish, and enhance the livelihoods of coastal communities (Pandikar, 2024). This program reflects broader Islamic principles of maintaining balance (*mizan*) in nature and underscores the role of religious institutions in mobilizing communities for environmental action.

CONCLUSION

This study demonstrates a significant relationship between environmental conservation and disaster prevention through an interdisciplinary analysis of the teachings of the Qur'an and environmental science. The theological insights derived from Surah Al-A'raf, verses 56–58, highlight humanity's responsibility as stewards (khalifah) to maintain the balance (mizan) of nature. The study reveals that neglecting this responsibility, as warned in the Qur'an, can lead to environmental degradation, which is scientifically linked to an increased frequency of natural disasters. Empirical data from environmental reports, such as those from the IPCC and FAO, support this correlation, illustrating how human activities such as deforestation and pollution exacerbate disaster risks.

By integrating Islamic theology with scientific evidence, this study underscores the importance of adopting faith-based conservation practices. Programs such as the Green Mosque Movement in Indonesia exemplify the practical application of Islamic principles in promoting sustainable environmental management. These findings suggest that deeper engagement with religious values can strengthen efforts to address environmental challenges and mitigate disaster risks. This research contributes to both Islamic studies and environmental science by providing a holistic framework that bridges theology and empirical research, offering new perspectives on the crucial role of conservation in disaster prevention.

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