Tafse: Journal of Qur'anic Studies
Vol. 11, No. 1, pp. 19-36, January-June 2026
https://jurnal.ar-raniry.ac.id/index.php/tafse
DOI:10.22373/tafse.v11i1.33825

Mizan and Village Waste Management: A Qur'anic Ecotheological Study of Surah Al-Raḥmān 55:7–9 in Kertajaya Village

[*]Wildan[1], Heriyanto[2], Yanyan Nurdin[3]
[1,3]Institut Agama Islam Persis Garut, Indonesia
[2]Universitas Ibnu Khaldun Bogor, Indonesia
[*]Email: *wildanabrori023@gmail.com*

Abstract: This study examines *mīzān*, meaning balance, measure, justice, and equilibrium, in Surah al-Raḥmān 55:7–9 and explores its relevance to waste-management conditions in Kertajaya Village, Pebayuran Subdistrict, Bekasi Regency. The study employed a qualitative design combining library research and field research through an ecotheological approach. Textual analysis examined the interpretations of Ibn Kathir, al-Sa'di, Hamka, and M. Quraish Shihab, while field data were collected through semi-structured interviews with eight key informants and observations of irrigation channels, residential drainage, and riverbank areas. The textual data were analyzed comparatively, and field data were analyzed using the Miles and Huberman interactive model. The findings show that the four exegetes associate *mīzān* with justice, proportion, equilibrium, restraint, and the divinely established order of creation. Drawing on these themes, the study develops ecological carrying capacity, environmental justice, and ecological piety as analytical syntheses for interpreting local environmental conditions. Field findings indicate visible pressure on irrigation channels and residential drainage through waste accumulation, water-hyacinth growth, limited disposal facilities, inconsistent maintenance, and uneven participation in collective cleaning activities. Household practices, including waste burning, burial, and disposal near waterways, were shaped by constrained disposal options and the absence of a consistent village-level waste-management system. The study concludes that environmental problems in Kertajaya Village arise through the interaction of household practices, limited environmental services, weak maintenance arrangements, and insufficient local coordination. Qur'anic ecological ethics can support environmental responsibility when connected with practical institutions, accessible waste services, environmental education, and community participation. The proposed Village Ecotheology Forum is presented as an initial community-based option that requires further testing through participatory research.

Keywords: *Mīzān; Qur'anic Ecotheology; Waste Management; Environmental Ethics; Kertajaya Village*

***

Introduction

Environmental degradation remains a major global and local concern, reflected in rising temperatures, land degradation, biodiversity loss, and declining environmental quality.[1] In Indonesia, the 2023 *Environment Statistics of Indonesia* reported that more

[1] Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2023: Synthesis Report* (Geneva: IPCC, 2023), 4–5.

than half of monitored rivers remained polluted, with domestic and industrial waste identified as major contributors.[2] Environmental problems therefore concern technical management as well as the ethical orientations that shape human relations with nature.

The Citarum River illustrates this challenge at the regional level. Environmental pressures within settlements along the watershed cannot be fully understood through aggregate indicators alone. Kertajaya Village, Pebayuran Subdistrict, Bekasi Regency, presents a local context marked by clogged irrigation channels, waste accumulation in drainage networks, and seasonal inundation. This study does not measure water quality, discharge, or hydrological capacity. Its observations and interviews instead document how residents experience and interpret environmental deterioration in their daily lives.

Ecological degradation also raises ethical and spiritual concerns. Nasr associates the environmental crisis with a broader spiritual crisis in modern civilization.[3] In Indonesia, where Islamic teachings remain influential in communal life, the Qur'an offers ethical resources for reflecting on environmental responsibility.[4] One relevant concept is *mīzān*, meaning balance, measure, justice, or equilibrium, which appears in Surah al-Raḥmān verses 7–9:

وَٱلسَّمَآءَ رَفَعَهَا وَوَضَعَ ٱلْمِيزَانَ ۝٧ أَلَّا تَطْغَوْا۟ فِى ٱلْمِيزَانِ ۝٨ وَأَقِيمُوا۟ ٱلْوَزْنَ بِٱلْقِسْطِ وَلَا تُخْسِرُوا۟ ٱلْمِيزَانَ ۝٩

> "And the heaven He raised and imposed the balance. That you not transgress within the balance. And establish weight in justice and do not make deficient the balance." (QS. al-Raḥmān [55]: 7–9).[5]

The term *mīzān* is associated with balance, justice, proportion, and the prohibition of transgression. Ibn Kathir relates it to *al-'adl*, or justice, and the obligation to uphold fairness. Al-Sa'di emphasizes justice in speech and action. Hamka connects the verses with *sunnatullāh*, meaning the divinely established order of creation, and M. Quraish Shihab explains *mīzān* through the interconnected meanings of measurement, justice, and equilibrium. These interpretations provide ethical categories for examining environmental practices, even though they do not offer direct technical guidance for

[2] Badan Pusat Statistik, *Statistik Lingkungan Hidup Indonesia 2023: Environment Statistics of Indonesia 2023*, vol. 42 (Jakarta: Badan Pusat Statistik, 2023), 203

[3] Seyyed Hossein Nasr, *The Encounter of Man and Nature: The Spiritual Crisis of Modern Man* (London: George Allen & Unwin, 1968), 20.

[4] Pew Research Center, *How the Global Religious Landscape Changed from 2010 to 2020* (Washington, DC: Pew Research Center, 2025), 56, https://doi.org/10.58094/fj71-ny11

[5] Kementerian Agama Republik Indonesia, "Al-Qur'an dan Terjemahnya," *Qur'an Kemenag*, accessed June 30, 2026,

contemporary waste management. In this article, ecological carrying capacity, environmental justice, and ecological piety are analytical syntheses developed by the author from this exegetical framework; they are not presented as direct formulations of the four exegetes.

Recent scholarship has explored Islamic ecological ethics in relation to mining, environmental interpretation, water-resource management, and community-based permaculture. Ismail and Sukron examine Qur'anic critiques of exploitative anthropocentrism in the context of mining in Raja Ampat.[6] Rasyid, Bakir, and Munawir analyze *mīzān* in Surah al-Raḥmān verses 7–9 and relate it to ecological balance, social justice, and individual responsibility.[7] Yusroh and colleagues discuss Qur'anic values in water-resource management,[8] while Hanik and colleagues examine Islamic ethics in community-based permaculture.[9]

However, limited research has examined how Qur'anic ecological ethics can be used to interpret routine environmental problems at the village level, particularly domestic waste, drainage, irrigation, and community participation. Existing studies tend to focus on textual interpretation, extractive industries, water infrastructure, or agricultural sustainability. This study addresses that gap by bringing interpretations of *mīzān* into dialogue with environmental conditions and waste-management practices in Kertajaya Village. Accordingly, this study examines how classical and contemporary exegetes interpret *mīzān* in Surah al-Raḥmān verses 7–9 and identifies the ecological ethical implications that can be developed from those interpretations. It then assesses how daily waste-management practices and environmental conditions in Kertajaya Village correspond with, or depart from, the ecotheological framework derived from the concept of *mīzān*.

---

[6] Ismail and Mokhamad Sukron, "Qur'anic Critique of Exploitative Anthropocentrism: Exegesis of Verses on Land and Nature in the Context of Raja Ampat Mining," *International Journal of Social Science and Religion* 6, no. 2 (2025): 209–20, https://doi.org/10.53639/ijssr.v6i2.337

[7] Abdul Rasyid, Moh. Bakir, and Munawir, "Prinsip Mizan dalam Pemeliharaan Lingkungan: Telaah Tafsir Al-Azhar pada Q.S. Ar-Rahman Ayat 7–9," *Al-Fahmu: Jurnal Ilmu Al-Qur'an dan Tafsir* 4, no. 2 (2025): 543–60, https://doi.org/10.58363/alfahmu.v4i2.533

[8] Yusroh Yusroh, Siti Rohmah, M. Farrij Hasbullah, Haris Abdurrahman, M. Yusuf Fattah, and Andi Rosa, "Pengelolaan Bendungan Sindangheula dalam Perspektif Tafsir Ilmi: Integrasi Nilai-Nilai Al-Qur'an dengan Konsep Keberlanjutan Sumber Daya Air," *JIQTA: Jurnal Ilmu Al-Qur'an dan Tafsir* 4, no. 1 (2025): 26–40, https://doi.org/10.36769/jiqta.v4i1.1045

[9] Ummi Hanik Esaputri, Nada Nadhifa, Hanif Budiman, and Putu Ayu Pramanasari Agustiananda, "Nurturing the Earth through Islamic Ethical Practices and Community-Based Permaculture in Indonesia," *Jurnal Sosiologi Reflektif* 19, no. 2 (2025): 337–64, https://doi.org/10.14421/5mjcq856

This research employed a qualitative design combining library and field research through an ecotheological approach. Kertajaya Village was selected purposively because residents identified recurring problems involving household waste, clogged irrigation channels, and polluted drainage. Eight key informants were selected through purposive and snowball sampling. The sampling strategy was intended to obtain experience-based accounts of local environmental conditions and waste practices rather than statistically representative estimates of community behavior. All participants had lived in the village for at least five years and had direct experience with local environmental conditions. Data were collected through document review, semi-structured interviews, and field observations. The document review examined the tafsir, or Qur'anic exegesis, of Ibn Kathir, al-Sa'di, Hamka, and M. Quraish Shihab. Interviews explored residents' experiences and waste-management practices, while observations documented visible conditions in waterways, drainage channels, and riverbank areas. Textual data were analyzed comparatively to identify ethical themes related to *mīzān*, justice, proportion, and transgression. Field data were analyzed using the interactive model of Miles and Huberman.[10] The field findings were subsequently interpreted through the ecotheological framework developed from the textual analysis. All participants provided verbal informed consent, and their identities were anonymized. Credibility was strengthened through source and methodological triangulation by comparing participant accounts with field observations. Pseudonyms are used throughout the presentation of participant accounts.

Discussion

Textual Analysis: *Mīzān* in Surah al-Raḥmān Verses 7–9

Surah al-Raḥmān is commonly classified as a Makkiyah, or Meccan, surah consisting of seventy-eight verses. Al-Suyuthi refers to it as *'Arūs al-Qur'an*, meaning "the Bride of the Qur'an," in reference to its rhetorical beauty and recurring portrayal of divine mercy.[11] Within this broader description of divine order, verses 7–9 introduce the concept of *mīzān.* The term *mīzān* appears three times in these verses. In its immediate lexical sense, it refers to a scale or measure. Its exegetical significance extends to justice, proportion, order, and restraint from transgression. This section examines the

[10] Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (Bandung: Alfabeta, 2013), 246.
[11] Jalaluddin al-Suyuthi, *Al-Itqan fi Ulum al-Qur'an* (*'Ulum al-Qur'an*) (Surakarta: Indiva Pustaka, 2009), 814

interpretations of Ibn Kathir, al-Sa'di, Hamka, and M. Quraish Shihab before identifying ethical implications relevant to environmental practice.

Ibn Kathir interprets *mīzān* as *al-'adl*, or justice.[12] He connects this meaning with Surah al-Hadid verse 25, where the revealed Book and the balance are associated with the command that people uphold justice.[13] In this interpretation, *mīzān* represents the normative order through which fairness is maintained in social and commercial life. Ibn Kathir also understands the prohibition against diminishing the measure as a prohibition against dishonesty and injustice in human transactions.

Ibn Kathir does not discuss contemporary environmental management. His interpretation nevertheless provides an ethical starting point for this study. Where *mīzān* expresses a commitment to justice and proper measure, environmental practices that transfer harm to other people, degrade shared water systems, or reduce access to a healthy environment may be evaluated as departures from that ethical order. This is an interpretive extension developed in the present study, rather than a direct environmental formulation in Ibn Kathir's tafsir.

Al-Sa'di likewise understands *mīzān* as justice among human beings in speech and action.[14] He explains that the prohibition against reducing the balance encompasses injustice, oppression, and transgression.[15] His interpretation places moral restraint at the center of social conduct. For the purposes of this study, this emphasis supports an ethical reading of environmental responsibility. Practices that treat waterways, drainage channels, or communal land as spaces for unmanaged disposal may impose consequences on other residents. Such practices can therefore be examined through the broader ethical concerns of justice, accountability, and the avoidance of harm.

Hamka interprets *mīzān* as consideration and balance.[16] He relates the verses to *sunnatullāh*, meaning the divinely established order and regularity of creation.[17] In his discussion, the order of the universe illustrates the importance of precision, proportion, and responsible human action. Hamka does not offer a technical model of environmental

[12] Ibnu Katsir, *Tafsir al-Qur'an al-'Azim* (Beirut: Al-Rayan, 2002), 453.
[13] Katsir, *Tafsir al-Qur'an al-'Azim*, 453.
[14] 'Abd al-Rahman al-Sa'di, *Taysir al-Karim al-Rahman fi Tafsir Kalam al-Mannan*, 1st ed. (Beirut: Dar Ibn Hazm, 2003), 823.
[15] Al-Sa'di, *Taysir al-Karim al-Rahman*, 823.
[16] Hamka, *Tafsir al-Azhar*, vol. 9 (Jakarta: Gema Insani, 2020)
[17] Hamka, *Tafsir al-Azhar*, vol. 9

planning. His interpretation, however, supports the view that human development should recognize natural conditions rather than proceed without regard for them. Within this study, this perspective informs ethical reflection on drainage, irrigation, settlement conditions, and the relationship between human activity and local water systems.

M. Quraish Shihab explains *mīzān* through three interconnected meanings: a measuring instrument, justice, and equilibrium.[18] He interprets *ṭughyān*, or transgression, as a deliberate act of exceeding proper limits.[19] The command *aqīmū*, meaning "establish" or "uphold," conveys the importance of sustained commitment to justice and proper measure.[20] Shihab's interpretation provides a textual basis for examining questions of proportionality and equilibrium. In this article, ecological carrying capacity, environmental justice, and ecological piety are analytical syntheses developed from these themes. They are not presented as direct terms or formulations used by Shihab.

Ecological carrying capacity is used here to describe the need to align human activity with the limits of local environmental systems. Environmental justice is used here to consider how environmental burdens and responsibilities are distributed among local communities and across generations.[21] Ecological piety refers to ethical commitments and practical actions intended to preserve environmental conditions as part of religious and social responsibility.[22] Together, these concepts provide an interpretive framework for assessing waste practices, drainage conditions, institutional support, and community participation in Kertajaya Village.

Environmental Conditions and Everyday Waste Practices in Kertajaya Village

Field observations indicate that several waterways in Kertajaya Village have experienced visible pressure from domestic waste, sedimentation, and water hyacinth growth. At the main irrigation gate, dense water hyacinth covered substantial portions of the water surface. The accumulation of vegetation appeared to impede water flow and

[18] M. Quraish Shihab, *Tafsir al-Mishbah*, vol. 13, 3rd ed. (Ciputat, Tangerang: Lentera Hati, 2005), 500.

[19] Shihab, *Tafsir al-Mishbah*, 500–501

[20] Shihab, *Tafsir al-Mishbah*, 501.

[21] Andri G. Wibisana, "Perlindungan Lingkungan dalam Perspektif Keadilan Antar Generasi: Sebuah Penelusuran Teoritis Singkat," *Masalah-Masalah Hukum* 46, no. 1 (2017): 9–19, https://doi.org/10.14710/mmh.46.1.2017.9-19.

[22] Rahmat Limbong, Adrian Abdul Aziz Luthfi, Sundari Yufitri, Agus Firdaus Chandra, and Maher Bin Ghazali, "Kesalehan Ekologis Masyarakat Muslim Pekanbaru: Studi terhadap Hadis dalam Upaya Meminimalisir Kerusakan Lingkungan," *Harmoni* 22, no. 1 (2023): 70–92, https://doi.org/10.32488/harmoni.v1i22.617

retain household waste, including plastic materials. One informant, identified as Mr. Ning, explained that the combined presence of water hyacinth and domestic waste had contributed to blockages in the irrigation channel.

The condition of the irrigation gate illustrates an environmental problem with physical and social dimensions. The water hyacinth itself is not treated in this study as evidence of a single causal process. Its growth, together with visible waste accumulation, indicates that the channel requires regular maintenance and coordinated waste management. The issue therefore concerns household practices, collection systems, maintenance arrangements, and community participation.

Figure 1.
Water Hyacinth Accumulation at the Main Irrigation Gate in Kertajaya Village



Source: Author's documentation, December 2025.

The figure shows water hyacinth covering parts of the irrigation channel and retaining visible household waste. The image serves as observational documentation of site conditions. It does not provide a technical measurement of water quality, sedimentation, discharge, or hydraulic capacity.

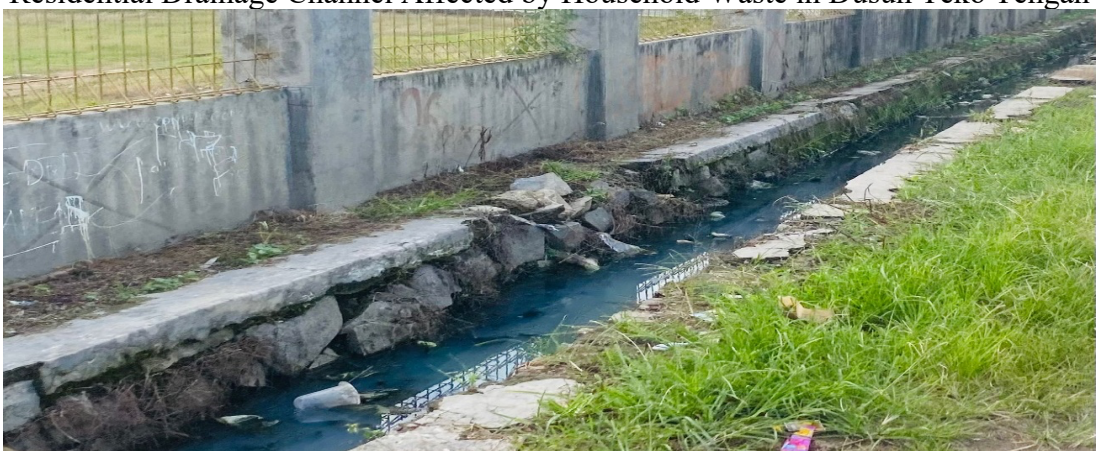
Local environmental management has included collective cleaning activities. According to field accounts, the *Jumat Bersih*, or Clean Friday, program involved village officials, subdistrict representatives, community organizations, and security personnel. Resident participation, however, appeared uneven. Several informants indicated that many residents could not participate consistently because of work obligations and limited available time. In some cases, neighborhood leaders arranged paid labor to clean blocked canals when voluntary participation was insufficient.

The study also found voluntary environmental action among a smaller group of residents. Ms. Tiwi and several other residents reportedly cleared water hyacinth from

local waterways on a routine basis. These efforts indicate that environmental concern exists within the community. Their limited scale, however, constrains their capacity to address continuing waste accumulation and vegetation growth across the wider village area.

Drainage channels in residential areas also showed visible waste accumulation. Some channels were narrow, dark in color, and mixed with household waste. Residents reported that the village did not have a consistently functioning temporary waste disposal site, commonly known in Indonesia as a *TPS*, or temporary waste collection point. In response, households adopted several independent disposal methods, including burning waste near the river embankment or in household yards, burying waste, and selling recyclable materials with economic value.

Figure 2.
Residential Drainage Channel Affected by Household Waste in Dusun Teko Tengah



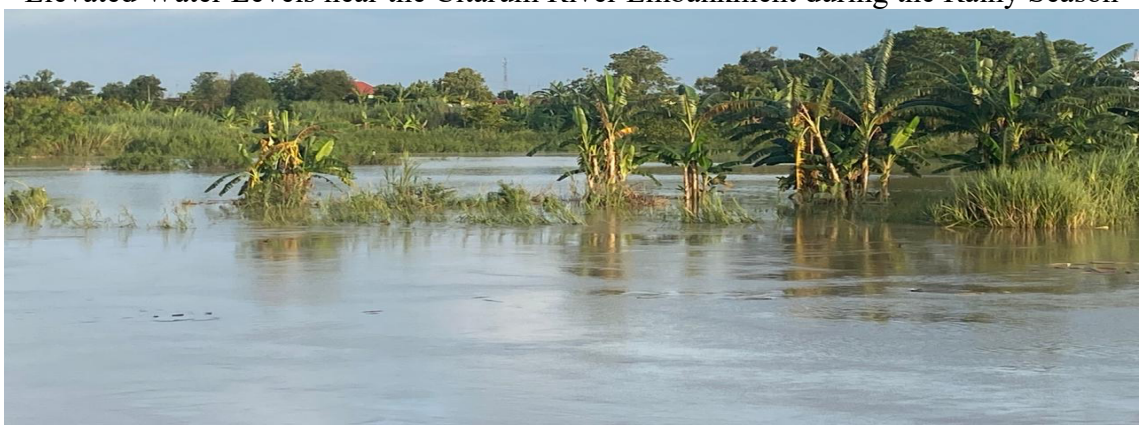
Source: Author's documentation, December 2025.

The condition shown in Figure 2 indicates challenges in household waste collection, sanitation infrastructure, and routine maintenance. The image does not establish that waste accumulation alone caused flooding or other hydrological events. It documents the local conditions within which residents manage waste in the absence of an integrated village-level system.

Residents also described recurring inundation during periods of heavy rainfall. Mr. Boneng recalled an occasion when residents conducted an emergency collective clean-up in the early morning after blocked channels caused water to overflow into residential areas. This account suggests that mutual cooperation remains present in the village, although collective action often occurs after environmental problems have directly disrupted daily life.

Religious messages about cleanliness were reportedly delivered through *pengajian*, or Islamic study gatherings. A local religious counselor explained that moral appeals had not always translated into sustained environmental practice because supporting facilities were limited and earlier waste-disposal facilities were no longer functioning. Participants associated this problem with weak maintenance arrangements, insufficient technical guidance, and the absence of a regular waste-management system.

Figure 3.
Elevated Water Levels near the Citarum River Embankment during the Rainy Season



Source: Author's documentation, December 2025.

Figure 3 documents elevated water levels in the embankment area, locally known as *gili-gili*, during the rainy season. Residents associated this condition with heavy rainfall and upstream water discharge. Because this study did not conduct hydrological measurements, the figure should be read as evidence of local exposure to seasonal inundation rather than proof of a specific technical cause.

The field findings suggest that environmental conditions in Kertajaya Village are associated with several interconnected factors. These include limited waste-management infrastructure, inconsistent maintenance, constrained household disposal options, uneven participation in collective cleaning, and the normalization of waste accumulation in some waterways. The findings do not support reducing the problem to a single cause, such as individual apathy or institutional failure. They instead indicate a relationship between household practices, environmental services, and local coordination.

Reading Kertajaya Village through the Ethical Framework of *Mīzān*

The concept of *mīzān* provides an ethical lens for interpreting the environmental conditions observed in Kertajaya Village. This framework does not replace technical environmental assessment or hydrological analysis. It instead directs attention to

questions of balance, justice, responsibility, and restraint in the relationship between human practices and shared ecological spaces. Islamic ecotheological scholarship has commonly treated Qur'anic concepts such as *mīzān*, *khalīfah*, and divine order as normative resources for environmental ethics, while also recognizing that their contemporary application requires contextual interpretation rather than direct transplantation into modern technical policy.[23]

First, the condition of irrigation channels and residential drainage points to a problem of proportionality. Waste, vegetation, and sediment have accumulated in waterways that serve agricultural, residential, and sanitation functions. Drawing on Shihab's explanation of *mīzān* as equilibrium and proper measure, this study interprets the visible pressure on local drainage and irrigation systems as an indication that everyday human activities and local environmental conditions are no longer properly aligned. This interpretation does not establish a technical measurement of ecological carrying capacity. It identifies an ethical concern: environmental systems that support communal life are being used and maintained in ways that appear inconsistent with the principle of proportion embodied in *mīzān*.

This interpretation is consistent with Islamic ecotheological approaches that understand balance as a moral orientation toward the integrity of creation rather than as a purely abstract theological idea. Ouis argues that Qur'anic ecological concepts may provide a framework for understanding human responsibility toward the natural world, particularly where human conduct disrupts the balance embedded in creation.[24] At the same time, Johnston cautions that Islamic legal and ethical concepts cannot be treated as ready-made technical solutions for contemporary environmental problems.[25] The relevance of *mīzān* in this study therefore lies in its capacity to guide ethical evaluation, not in its use as a substitute for engineering, environmental science, or hydrological measurement.

Second, waste-management practices in Kertajaya Village raise questions of environmental justice. Household waste does not remain within the boundaries of the

[23] David L. Johnston, "Intra-Muslim Debates on Ecology: Is Shari'a Still Relevant?," *Worldviews* 16, no. 3 (2012): 218–38; Anna M. Gade, *Muslim Environmentalisms: Religious and Social Foundations* (New York: Columbia University Press, 2019).

[24] Soumaya Pernilla Ouis, "Islamic Ecotheology Based on the Qur'an," *Islamic Studies* 37, no. 2 (1998): 151–71.

[25] Johnston, "Intra-Muslim Debates on Ecology," 218–38.

household that produces it. When waste is burned near homes, buried without sorting, or disposed of near waterways, the consequences may be experienced by neighboring residents, farmers, and households that rely on the same drainage and irrigation systems. Ibn Kathir's emphasis on *al-'adl*, or justice, provides an ethical basis for examining how environmental burdens are distributed among those who share local ecological spaces.

The field findings, however, should not be interpreted as evidence that environmental degradation results solely from individual indifference. Studies of solid-waste management in developing contexts consistently show that household practices are shaped by the availability of collection services, infrastructure, maintenance arrangements, institutional capacity, and public participation.[26] Guerrero, Maas, and Hogland emphasize that waste-management problems emerge through interactions among social, technical, financial, and institutional factors.[27] Ferronato and Torretta likewise identify inadequate collection systems, uncontrolled disposal, and open burning as recurrent challenges in settings where formal waste infrastructure is limited.[28] In Kertajaya Village, the practices of burning, burying, and disposing of waste near waterways should therefore be understood as ethically problematic responses that are also conditioned by constrained disposal options and inconsistent village-level services.

Third, al-Sa'di's discussion of injustice and transgression provides an ethical basis for examining the limits of environmentally harmful practices. The concept of *ṭughyān*, meaning transgression or exceeding proper limits, is useful because it directs attention to actions that generate harm beyond the actor's immediate sphere. Yet the concept should not be applied in a way that isolates residents from the institutional conditions shaping their choices. In Kertajaya Village, unmanaged waste practices become more likely when collection points, routine transport, technical guidance, and maintenance systems are absent or unreliable.

[26] David C. Wilson, Ljiljana Rodic, Anne Scheinberg, Costas A. Velis, and Graham Alabaster, "Comparative Analysis of Solid Waste Management in 20 Cities," *Waste Management & Research* 30, no. 3 (2012): 237–54, https://doi.org/10.1177/0734242X12437569; Maria A. Guerrero, Ger Maas, and William Hogland, "Solid Waste Management Challenges for Cities in Developing Countries," *Waste Management* 33, no. 1 (2013): 220–32, https://doi.org/10.1016/j.wasman.2012.09.008.

[27] Guerrero, Maas, and Hogland, "Solid Waste Management Challenges," 220–32

[28] Giulia Ferronato and Vincenzo Torretta, "Waste Mismanagement in Developing Countries: A Review of Global Issues," *International Journal of Environmental Research and Public Health* 16, no. 6 (2019): 1060, https://doi.org/10.3390/ijerph16061060.

This relationship between household behavior and institutional arrangements is central to integrated waste-management approaches. Wilson and colleagues show that effective solid-waste systems depend on coordinated governance, service delivery, financing, stakeholder participation, and public communication.[29] Marshall and Farahbakhsh similarly argue that waste management requires a systems perspective capable of linking social behavior, infrastructure, regulations, institutional arrangements, and local decision-making.[30] The ethical significance of *ṭughyān* in this study therefore extends beyond the conduct of individual residents. It also concerns the failure to establish conditions that enable safer and more sustainable practices in shared environmental spaces.

Fourth, Hamka's discussion of *sunnatullāh*, meaning the divinely established order and regularity of creation, offers an ethical perspective on the relationship between settlement management and natural conditions. Narrow drainage channels, recurring blockages, water-hyacinth accumulation, and exposure to seasonal inundation suggest that environmental planning must pay closer attention to the physical character of waterways, drainage networks, and settlement space. This study does not claim that the existing drainage system has been technically proven to violate hydrological principles. It argues that the observed conditions justify stronger consideration of environmental limits, routine maintenance, and local infrastructure needs in village planning.

The findings also indicate that religious instruction alone has not produced sustained environmental practice. Participants reported that messages about cleanliness were communicated through *pengajian*, or Islamic study gatherings, but these messages were difficult to translate into continuing action without accessible facilities, maintenance systems, and collective routines. Research on religion and climate action similarly suggests that religious values and leaders may influence environmental perceptions and practices, but their effects are mediated by organizational capacity, local institutions, and opportunities for collective action.[31] Gade's work further shows that Muslim

[29] Wilson et al., "Comparative Analysis of Solid Waste Management in 20 Cities," 237–54.

[30] I. H. Marshall and K. Farahbakhsh, "Systems Approaches to Integrated Solid Waste Management in Developing Countries," *Waste Management* 33, no. 4 (2013): 988–1003, https://doi.org/10.1016/j.wasman.2012.12.023.

[31] Jens Koehrsen, "Muslims and Climate Change: How Islam, Muslim Organizations, and Religious Leaders Influence Climate Change Perceptions and Mitigation Activities," *WIREs Climate Change* 12, no. 3 (2021): e702, https://doi.org/10.1002/wcc.702.

environmentalism develops through social practices, institutions, education, and collective engagement, rather than through doctrinal commitment alone.[32]

In this context, the ethical framework of *mīzān* supports a relational understanding of environmental responsibility. Residents remain responsible for minimizing harmful disposal practices, while village institutions and local leaders remain responsible for creating realistic conditions under which environmentally safer practices can be sustained. The issue is therefore neither exclusively moral nor exclusively technical. It concerns the relationship between ethical awareness, public services, maintenance systems, and collective environmental responsibility.

Comparative Interpretation of *Mīzān* and Environmental Conditions in Kertajaya Village

Table 1.
Comparative Interpretation of *Mīzān* and Its Relevance to Environmental Conditions in Kertajaya Village

Exegete	Core Meaning in Tafsir	Analytical Synthesis in This Study	Relevance to Kertajaya Village
Ibn Kathir	*Mīzān* is associated with *al-'adl*, or justice.	Environmental justice requires that environmental burdens are not shifted unfairly to other residents or future generations.	Domestic waste in shared waterways affects irrigation, drainage, neighborhood sanitation, and the distribution of environmental burdens.
Al-Sa'di	*Mīzān* concerns justice in speech and action; reducing the measure is associated with injustice and transgression.	Environmental responsibility requires restraint from practices that create harm in shared ecological spaces, while institutional arrangements must enable safer disposal practices.	Waste burning and disposal near waterways occur within limited household disposal options, weak regular collection services, and uneven maintenance arrangements.
Hamka	*Mīzān* reflects consideration, proportion, and *sunnatullāh*, or the	Local development and maintenance should consider the physical condition of water channels, drainage,	Narrow drainage, recurring blockages, water-hyacinth accumulation, and seasonal inundation

[32] Gade, *Muslim Environmentalisms*.

	divinely established order of creation.	settlement space, and seasonal environmental pressures.	indicate the need for context-sensitive maintenance and environmental planning.
M. Quraish Shihab	*Mīzān* includes measurement, justice, and equilibrium.	Ecological carrying capacity, environmental justice, and ecological piety are analytical concepts developed by the author from the themes of proportion, justice, and equilibrium.	Resident-led clean-up efforts exist, but their impact remains limited without coordinated services, infrastructure, environmental education, and institutional support.

Source: Author's synthesis based on classical and contemporary Qur'anic exegesis, field observations and interviews in Kertajaya Village, and relevant literature.

The table distinguishes the original exegetical meanings from the analytical framework developed in this article. The third column does not attribute contemporary environmental concepts directly to the four exegetes. It identifies how their ethical themes can be interpreted in relation to village-level waste management. This distinction is important because Islamic ecological ethics can guide normative reflection, while practical environmental improvement still depends on institutions, public services, infrastructure, and locally appropriate maintenance systems.[33]

The comparative analysis shows that *mīzān* can be read through four interconnected dimensions. The first is justice, which concerns the unequal distribution of environmental burdens when waste affects shared waterways and residential drainage. The second is restraint, which concerns practices that create avoidable harm in communal ecological spaces. The third is proportionality, which concerns the relationship between settlement activities and the capacity of local environmental systems to absorb waste and support water flow. The fourth is institutional responsibility, which concerns whether village-level arrangements enable residents to act upon ethical commitments in practical and sustained ways.

This analysis also clarifies the role of the proposed Village Ecotheology Forum (*Forum Ekoteologi Desa*). The forum should not be understood as a substitute for formal

[33] Wilson et al., "Comparative Analysis of Solid Waste Management in 20 Cities," 237–54; Marshall and Farahbakhsh, "Systems Approaches," 988–1003; Silpa Kaza, Lisa Yao, Perinaz Bhada-Tata, and Frank Van Woerden, *What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050* (Washington, DC: World Bank, 2018).

waste-management obligations. Its value lies in creating a social bridge between ecological ethics, household practices, local participation, and communication with village institutions. Indonesia's waste-management framework places responsibility on government and society to reduce and manage household waste through organized, environmentally sound measures.[34] The proposed forum may therefore function as a community-based supporting mechanism for environmental education, neighborhood coordination, household waste sorting, and communication of local needs to village authorities.

The integration of environmental priorities into the Village Medium-Term Development Plan (*RPJMDes*) may provide a more durable institutional pathway for addressing waste-management facilities, drainage maintenance, and sanitation education. This recommendation is consistent with the broader principle that waste management requires structured planning, financing, infrastructure, community participation, and continuing institutional coordination.[35] It should nonetheless be treated as a policy direction derived from the findings of this case study rather than as a model that has already been implemented or empirically validated.

Conclusion

This study examined *mīzān*, meaning balance, justice, measure, and equilibrium, in Surah al-Raḥmān verses 7–9 and interpreted its relevance to waste-management conditions in Kertajaya Village. Ibn Kathir associates *mīzān* with *al-'adl*, or justice; al-Sa'di emphasizes justice and restraint from transgression; Hamka relates balance to *sunnatullāh*, the divinely established order of creation; and M. Quraish Shihab explains *mīzān* through measurement, justice, and equilibrium. Drawing on these interpretations, this study develops an ecotheological framework centered on ecological carrying capacity, environmental justice, and ecological piety. These concepts are analytical syntheses developed in this study rather than direct technical formulations of the four exegetes.

The findings indicate a gap between the ethical orientation of *mīzān* and everyday environmental conditions in Kertajaya Village. Waste accumulation in irrigation channels

[34] Republic of Indonesia, *Law No. 18 of 2008 on Waste Management*; Republic of Indonesia, *Government Regulation No. 81 of 2012 on the Management of Household Waste and Household-Type Waste*.

[35] Kaza et al., *What a Waste 2.0*; Marshall and Farahbakhsh, "Systems Approaches," 988–1003.

and residential drainage, water-hyacinth growth, limited disposal facilities, inconsistent maintenance, and uneven participation in collective cleaning indicate continuing pressure on local environmental systems. Household practices such as waste burning, burial, and disposal near waterways should be understood alongside limited disposal options, weak maintenance arrangements, and the absence of a consistent village-level waste-management system. The observed environmental conditions appear to reflect an interaction between household practices, environmental services, and local coordination.

The study suggests that religious messages concerning cleanliness require practical institutional support to become sustained environmental practice. The proposed Village Ecotheology Forum (*Forum Ekoteologi Desa*) may serve as an initial community-based option for connecting religious education, neighborhood participation, and communication with village authorities, while environmental priorities may also be incorporated into the Village Medium-Term Development Plan (*RPJMDes*). Because this study was limited to one village and did not conduct technical environmental measurements, future research should test these initiatives through Participatory Action Research and comparative village-based studies.

Bibliography

Al-Sa'di, 'Abd al-Rahman. *Taysir al-Karim al-Rahman fi Tafsir Kalam al-Mannan*. 1st ed. Beirut: Dar Ibn Hazm, 2003.

Al-Suyuthi, Jalaluddin. *Al-Itqan fi Ulum al-Qur'an* (*'Ulum al-Qur'an*). Surakarta: Indiva Pustaka, 2009.

Badan Pusat Statistik. *Statistik Lingkungan Hidup Indonesia 2023: Environment Statistics of Indonesia 2023*. Vol. 42. Jakarta: Badan Pusat Statistik, 2023.

Esaputri, Ummi Hanik, Nada Nadhifa, Hanif Budiman, and Putu Ayu Pramanasari Agustiananda. "Nurturing the Earth through Islamic Ethical Practices and Community-Based Permaculture in Indonesia." *Jurnal Sosiologi Reflektif* 19, no. 2 (2025): 337–64. https://doi.org/10.14421/5mjcq856

Ferronato, Giulia, and Vincenzo Torretta. "Waste Mismanagement in Developing Countries: A Review of Global Issues." *International Journal of Environmental Research and Public Health* 16, no. 6 (2019): 1060. https://doi.org/10.3390/ijerph16061060

Gade, Anna M. *Muslim Environmentalisms: Religious and Social Foundations*. New York: Columbia University Press, 2019.

Guerrero, Maria A., Ger Maas, and William Hogland. "Solid Waste Management Challenges for Cities in Developing Countries." *Waste Management* 33, no. 1 (2013): 220–32. https://doi.org/10.1016/j.wasman.2012.09.008

Hamka. *Tafsir al-Azhar*. Vol. 9. Jakarta: Gema Insani, 2020.

Intergovernmental Panel on Climate Change. *Climate Change 2023: Synthesis Report*. Geneva: IPCC, 2023.

Ismail and Mokhamad Sukron. "Qur'anic Critique of Exploitative Anthropocentrism: Exegesis of Verses on Land and Nature in the Context of Raja Ampat Mining." *International Journal of Social Science and Religion* 6, no. 2 (2025): 209–20. https://doi.org/10.53639/ijssr.v6i2.337.

Johnston, David L. "Intra-Muslim Debates on Ecology: Is Shari'a Still Relevant?" *Worldviews* 16, no. 3 (2012): 218–38.

Katsir, Ibnu. *Tafsir al-Qur'an al-'Azim*. Beirut: Al-Rayan, 2002.

Kaza, Silpa, Lisa Yao, Perinaz Bhada-Tata, and Frank Van Woerden. *What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050*. Washington, DC: World Bank, 2018.

Kementerian Agama Republik Indonesia. "Al-Qur'an dan Terjemahnya." *Qur'an Kemenag*. Accessed June 30, 2026.

Koehrsen, Jens. "Muslims and Climate Change: How Islam, Muslim Organizations, and Religious Leaders Influence Climate Change Perceptions and Mitigation Activities." *WIREs Climate Change* 12, no. 3 (2021): e702. https://doi.org/10.1002/wcc.702

Limbong, Rahmat, Adrian Abdul Aziz Luthfi, Sundari Yufitri, Agus Firdaus Chandra, and Maher Bin Ghazali. "Kesalehan Ekologis Masyarakat Muslim Pekanbaru: Studi terhadap Hadis dalam Upaya Meminimalisir Kerusakan Lingkungan." *Harmoni* 22, no. 1 (2023): 70–92. https://doi.org/10.32488/harmoni.v1i22.617.

Marshall, I. H., and K. Farahbakhsh. "Systems Approaches to Integrated Solid Waste Management in Developing Countries." *Waste Management* 33, no. 4 (2013): 988–1003. https://doi.org/10.1016/j.wasman.2012.12.023.

Nasr, Seyyed Hossein. *The Encounter of Man and Nature: The Spiritual Crisis of Modern Man*. London: George Allen & Unwin, 1968.

Ouis, Soumaya Pernilla. "Islamic Ecotheology Based on the Qur'an." *Islamic Studies* 37, no. 2 (1998): 151–71.

Pew Research Center. *How the Global Religious Landscape Changed from 2010 to 2020*. Washington, DC: Pew Research Center, 2025. https://doi.org/10.58094/fj71-ny11

Rasyid, Abdul, Moh. Bakir, and Munawir. "Prinsip Mizan dalam Pemeliharaan Lingkungan: Telaah Tafsir Al-Azhar pada Q.S. Ar-Rahman Ayat 7–9." *Al-Fahmu: Jurnal Ilmu Al-Qur'an dan Tafsir* 4, no. 2 (2025): 543–60. https://doi.org/10.58363/alfahmu.v4i2.533.

Republic of Indonesia. *Government Regulation No. 81 of 2012 on the Management of Household Waste and Household-Type Waste*. Jakarta: Government of Indonesia, 2012.

Republic of Indonesia. *Law No. 18 of 2008 on Waste Management*. Jakarta: Government of Indonesia, 2008.

Shihab, M. Quraish. *Tafsir al-Mishbah*. Vol. 13. 3rd ed. Ciputat, Tangerang: Lentera Hati, 2005.

Sugiyono. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, 2013.

Wilson, David C., Ljiljana Rodic, Anne Scheinberg, Costas A. Velis, and Graham Alabaster. "Comparative Analysis of Solid Waste Management in 20 Cities." *Waste Management & Research* 30, no. 3 (2012): 237–54. https://doi.org/10.1177/0734242X12437569.

Wibisana, Andri G. "Perlindungan Lingkungan dalam Perspektif Keadilan Antar Generasi: Sebuah Penelusuran Teoritis Singkat." *Masalah-Masalah Hukum* 46, no. 1 (2017): 9–19. https://doi.org/10.14710/mmh.46.1.2017.9-19.

Yusroh, Yusroh, Siti Rohmah, M. Farrij Hasbullah, Haris Abdurrahman, M. Yusuf Fattah, and Andi Rosa. "Pengelolaan Bendungan Sindangheula dalam Perspektif Tafsir Ilmi: Integrasi Nilai-Nilai Al-Qur'an dengan Konsep Keberlanjutan Sumber Daya Air." *JIQTA: Jurnal Ilmu Al-Qur'an dan Tafsir* 4, no. 1 (2025): 26–40. https://doi.org/10.36769/jiqta.v4i1.1045.