Madinah : Jurnal Studi Islam
ISSN : 1978-659X (Printed),: 2620-9497 (Online)
https://jurnal.unitabah.ac.id/madinah/en

Volume 13,
Number 2,
December 2026

Madinah.JSI by IAI TABAH is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Submitted	Accepted	Published
27 July 2026	01 Nopember 2026	02 Nopember 2026
DOI; https://doi.org/10.58518/madinah.v13i2.5448		

ECOLOGICAL MONOTHEISM AND CLIMATE RESILIENCE: A QUR'ANIC FRAMEWORK FOR MUSLIM COASTAL COMMUNITIES

Ayang Ramadhani Putra Armain
Muhammadiyah University of Surakarta, Surakarta, Indonesia
E-mail: g100250010@student.ums.ac.id

Ahmad Nur Fathoni
Muhammadiyah University of Surakarta, Surakarta, Indonesia
E-mail: anf905@ums.ac.id

Mohammad Syahmi bin Mohd Radzi
Universiti Sains Islam Malaysia, Nilai, Malaysia
E-mail: syahmi_radzi@raudah.usim.edu.my

ABSTRACT: Climate change has become one of the most pressing global challenges, particularly for coastal regions vulnerable to sea level rise, coastal erosion, and ecological degradation. In Indonesia, environmental adaptation is influenced not only by technical and policy approaches but also by cultural and religious values. This study aims to reconstruct the relationship between ecological tawhid and climate resilience within the religious narratives of Muslim coastal communities through the perspective of Qur'anic ecological interpretation. This qualitative library research employs thematic Qur'anic interpretation (tafsir maudhu'i), content analysis, and eco-hermeneutics. Data were collected from the Qur'an, classical and contemporary tafsir, Islamic ecotheology literature, climate resilience studies, and environmental reports. The findings demonstrate that ecological tawhid provides a theological foundation linking God, humanity, and nature, while religious narratives function as ecological social capital that strengthens environmental responsibility, collective solidarity, and adaptive capacity. The integration of ecological tawhid and climate resilience produces the Ecological Tawhid Climate Resilience Framework, comprising ecological awareness, environmental stewardship, social resilience, adaptive action, and intergenerational sustainability. The novelty of this study lies in developing an integrative conceptual framework that connects Qur'anic ecological interpretation with contemporary climate resilience theory, contributing to Islamic ecotheology, environmental tafsir, and religion-based climate adaptation for coastal Muslim communities.

Keywords: Ecological Tawhid, Climate Resilience, Coastal Muslim Communities, Islamic Ecotheology, Climate Change.

ABSTRAK: *Perubahan iklim telah menjadi salah satu tantangan global yang paling mendesak, terutama bagi daerah pesisir yang rentan terhadap kenaikan permukaan laut, erosi pantai, dan degradasi ekologis. Di Indonesia, adaptasi lingkungan tidak hanya dipengaruhi oleh pendekatan teknis dan kebijakan tetapi juga oleh nilai-nilai budaya dan agama. Penelitian ini bertujuan untuk merekonstruksi hubungan antara tauhid ekologis dan ketahanan iklim dalam narasi keagamaan masyarakat pesisir Muslim melalui perspektif interpretasi ekologis Al-Qur'an. Penelitian perpustakaan kualitatif ini menggunakan interpretasi Al-Qur'an tematik (tafsir maudhu'i), analisis isi, dan eko-hermeneutika. Data dikumpulkan dari Al-Qur'an, tafsir klasik dan kontemporer, literatur ekoteologi Islam, studi ketahanan iklim, dan laporan lingkungan. Temuan ini menunjukkan bahwa tauhid ekologis memberikan landasan teologis yang menghubungkan Tuhan, kemanusiaan, dan alam, sedangkan narasi agama berfungsi sebagai modal sosial ekologis yang memperkuat tanggung jawab lingkungan, solidaritas kolektif, dan kapasitas adaptif. Integrasi tauhid ekologis dan ketahanan iklim menghasilkan Kerangka Ketahanan Iklim Tawhid Ekologis, yang terdiri dari kesadaran ekologis, pengelolaan lingkungan, ketahanan sosial, aksi adaptif, dan keberlanjutan antargenerasi. Kebaruan dari penelitian ini terletak pada pengembangan kerangka konseptual integratif yang menghubungkan interpretasi ekologi Al-Qur'an dengan teori ketahanan iklim kontemporer, berkontribusi pada ekoteologi Islam, tafsir lingkungan, dan adaptasi iklim berbasis agama bagi masyarakat Muslim pesisir.*
Kata kunci: *Tauhid Ekologis, Ketahanan Iklim, Muslim Pesisir, Ekoteologi Islam, Perubahan Iklim.*

INTRODUCTION

Muslim coastal communities in Indonesia face interconnected environmental risks, including tidal flooding, shoreline erosion, saltwater intrusion, and land subsidence.[1] These pressures threaten livelihoods, settlements, and ecological security, although their causes vary across coastal regions.[2] Evidence from Jakarta and Semarang highlights the interaction between physical exposure, socioeconomic vulnerability, and household adaptation.[3] Coastal inundation in northern Java also reflects geomorphological processes that cannot be attributed solely to climate change.[4] These overlapping risks demonstrate the need for adaptation strategies

[1] Lisa-Michéle Bott et al., "Land Subsidence in Jakarta and Semarang Bay — The Relationship between Physical Processes, Risk Perception, and Household Adaptation," *Ocean & Coastal Management* 211 (2021), https://doi.org/10.1016/j.ocecoaman.2021.105775.
[2] Z Zulfikar, "Islamic Ecotheology on the Carbon Footprint of Artificial Intelligence in Contemporary Digital Civilization," *Ishraqi* 25, no. 1 (2026): 15–32, https://doi.org/10.23917/ishraqi.v25i1.17582.
[3] Agus Heri Purnomo et al., "Revisiting the Climate Change Adaptation Strategy of Jakarta's Coastal Communities," *Ocean & Coastal Management* 253 (2024), https://doi.org/10.1016/j.ocecoaman.2024.107112.
[4] Siti Aliyuna Pratisti et al., "Religion and Adaptation in Drowning Villages: Muslim Communities' Responses to Flood and Abrasion on the Northern Coast of Java, Indonesia," *Worldviews* 28, no. 1 (2024): 46–69, https://doi.org/10.1163/15685357-tat00011.

that address both environmental hazards and the social conditions shaping community responses.[5]

Climate resilience involves more than physical protection. It encompasses adaptive capacity, collective learning, social cooperation, and the ability to respond to long-term environmental change. Yet global assessments reveal persistent weaknesses in adaptation planning and implementation. Olazabal et al. identify substantial gaps between coastal adaptation policies and their implementation,[6] while Berrang-Ford et al. find that documented adaptation remains predominantly fragmented and incremental, with limited evidence of effective risk reduction.[7] Adaptation interventions may also reproduce existing inequalities when local vulnerabilities and community participation are overlooked.[8] These challenges underscore the importance of integrating institutional capacities, local knowledge, and sociocultural resources into climate resilience strategies.[9]

Within Muslim communities, religion constitutes a potentially significant but context-dependent resource for environmental engagement. Koehrsen demonstrates that Islamic beliefs, religious organizations, and leadership influence environmental responses in diverse ways.[10] Pratisti et al. further reveal that religious practices among Muslim coastal communities in northern Java can both facilitate and constrain adaptation.[11] Meanwhile, Gade situates Islamic environmental ethics within broader debates on ecological justice and collective responsibility,[12] whereas Diningrum et al. establish the interpretive relevance of environmental obligations through *tafsir maqasidi*.[13] Recent scholarship also emphasizes that religious actors may either advance or obstruct sustainability

[5] Baso Muh Wahidin, Ahmad Nurrohim, and Zulfikar, "The Concept of Tawāzun in Hamka's Tafsir Al-Azhar and Its Relevance to the Phenomenon of Hustle Culture," *Community: Jurnal Hasil Penelitian Dan Pengabdian Masyarakat* 5, no. 1 (2026): 1009–26, https://doi.org/10.61166/community.v5i1.264.
[6] Marta Olazabal et al., "A Cross-Scale Worldwide Analysis of Coastal Adaptation Planning," *Environmental Research Letters* 14, no. 12 (2019), https://doi.org/10.1088/1748-9326/ab5532.
[7] Lea Berrang-Ford, "A Systematic Global Stocktake of Evidence on Human Adaptation to Climate Change," *Nature Climate Change* 11 (2021): 989–1000, https://doi.org/10.1038/s41558-021-01170-y.
[8] Siri Eriksen et al., "Adaptation Interventions and Their Effect on Vulnerability in Developing Countries: Help, Hindrance or Irrelevance?," *World Development* 141 (2021), https://doi.org/10.1016/j.worlddev.2020.105383.
[9] United Nations Environment Programme (UNEP), "Adaptation Gap Report 2024: Come Hell and High Water" (Nairobi: UNEP, 2024), https://doi.org/10.59117/20.500.11822/46497.
[10] Jens Koehrsen, "Muslims and Climate Change: How Islam, Muslim Organizations, and Religious Leaders Influence Climate Change Perceptions and Mitigation Activities," *WIREs Climate Change* 12 (2021): e702, https://doi.org/10.1002/wcc.702.
[11] Pratisti et al., "Religion and Adaptation in Drowning Villages: Muslim Communities' Responses to Flood and Abrasion on the Northern Coast of Java, Indonesia."
[12] Anna M Gade, "Muslim Environmentalisms and Environmental Ethics: Theory and Practice for Rights and Justice," *The Muslim World* 113, no. 3 (2023): 242–59, https://doi.org/10.1111/muwo.12474.
[13] Melinda Retno Diningrum, Ahmad Nurrohim, and Iqbal Nurul Yaqin, "Environmental Deterioration in Tafsir Maqasidi: A Comparative Study of Tafsir Al-Munir and Al-Azhar," *ZAD Al-Mufassirin* 6, no. 2 (2024): 270–91, https://doi.org/10.55759/zam.v6i2.259.

transitions, depending on institutional resources and sociopolitical conditions.[14] Although these studies illuminate the relationship between religion and environmental engagement, they do not systematically specify how distinct Qur'anic ecological principles correspond to particular dimensions of coastal climate resilience. This unresolved conceptual relationship constitutes the central research gap addressed in this study.

To address this gap, the study conceptualizes ecological *tawhid* (the oneness of God as a theological foundation for environmental ethics) through four interrelated principles: *khalifah* (human stewardship of the earth), *amanah* (entrusted moral responsibility), *mizan* (balance and justice), and *islah* (restoration and reform). Drawing on Q. 2:30, Q. 6:165, Q. 7:56, Q. 30:41, and Q. 55:7–9, these principles are examined as ethical resources for understanding human–environment relationships. Their contemporary ecological interpretation is subsequently connected to five dimensions of climate resilience: ecological awareness, environmental stewardship, social resilience, adaptive action, and intergenerational sustainability.[15] This integration does not presume that religious commitments automatically produce effective adaptation. Rather, it identifies potential conceptual pathways whose practical expression depends on local interpretations, institutions, and socioeconomic conditions.

Accordingly, this study addresses two research questions: (RQ1) How do Qur'anic ecological interpretations construct ecological *tawhid* as an ethical framework governing human–environment relationships? (RQ2) Through what conceptual mechanisms can ecological *tawhid* inform climate resilience in Muslim coastal communities, and what limitations qualify these relationships? Using thematic Qur'anic interpretation (*tafsir maudhu'i*), qualitative content analysis, and eco-hermeneutics, the study develops the Ecological Tawhid Climate Resilience Framework. Its theoretical contribution lies in systematically connecting Qur'anic environmental ethics with distinct dimensions of community resilience while distinguishing normative theological propositions from relationships requiring empirical validation.

METHOD

This study employs a qualitative-conceptual library research design to examine the relationship between ecological *tawhid* and climate resilience in Indonesian Muslim coastal communities. It integrates Qur'anic ecological interpretation with contemporary resilience scholarship to develop a theoretically grounded conceptual framework rather than test empirical causal relationships.[16]

[14] Jens Koehrsen and Christopher D Ives, "The Multiple Roles of Religious Actors in Advancing a Sustainable Future," *Ambio* 54, no. 8 (2025): 1318–33, https://doi.org/10.1007/s13280-025-02166-0.
[15] Zulfikar Zulfikar et al., "Maqāṣidī Interpretation of Environmental Verses as a Solution to the Ecological Crisis and Global Climate Change," *Ibn Abbas* 9, no. 1 (2026): 89–105.
[16] Elina Jaakkola, "Designing Conceptual Articles: Four Approaches," *AMS Review* 10 (2020): 18–26, https://doi.org/10.1007/s13162-020-00161-0; Zina O'Leary, *The Essential Guide to Doing Your Research Project*, 4th ed. (London: SAGE Publications, 2021), https://study.sagepub.com/oleary4e.

Primary textual sources comprise Q. Al-Baqarah [2]:30, Al-An'am [6]:165, Al-A'raf [7]:56, Ar-Rum [30]:41, and Ar-Rahman [55]:7–9, alongside classical and contemporary interpretations, including *Tafsir Ibn Kathir*, *Tafsir Al-Azhar*, *Tafsir Al-Misbah*, *Marah Labid*, and the Qur'anic commentary published by Indonesia's Ministry of Religious Affairs. Secondary sources include peer-reviewed research on Islamic ecotheology, environmental hermeneutics, social-ecological resilience, and coastal adaptation, supplemented by reports from the IPCC, UNEP, and Indonesia's National Disaster Management Agency (BNPB).

Relevant literature was identified through Scopus, Dimensions, Google Scholar, Crossref, Garuda, and academic repositories using combinations of the keywords *ecological tawhid*, *Islamic ecotheology*, *Qur'anic environmental ethics*, *climate resilience*, *religion and climate change*, and *Muslim coastal communities*. Sources were selected for thematic relevance, scholarly credibility, interpretive significance, and conceptual contribution. Selection prioritized analytical depth over statistical representativeness or exhaustive coverage.[17]

Data were collected through systematic documentation and thematic organization of Qur'anic passages, exegetical interpretations, scholarly publications, and institutional reports. The analysis combined three complementary approaches.

First, qualitative content analysis, a method for identifying and interpreting patterns of meaning within textual materials, was applied to classify concepts related to ecological responsibility, environmental degradation, collective resilience, and adaptive capacity. The analysis emphasized contextual interpretation and conceptual relationships rather than textual frequency.[18]

Second, *tafsir maudhu'i*, a thematic Qur'anic interpretation method that examines interconnected verses concerning a particular subject, was employed to reconstruct the ethical foundations of *tawhid*, *khalifah*, *amanah*, *mizan*, and *islah*. Following al-Farmawi's methodological principles, relevant passages were examined comparatively through classical and contemporary exegesis.[19]

Third, eco-hermeneutics, an interpretive approach connecting religious texts with contemporary ecological concerns, was used to examine the environmental significance of these theological principles. This approach distinguished historical exegetical meanings from contemporary ecological applications, thereby avoiding the assumption that Qur'anic passages directly articulate modern climate science.[20]

The final stage synthesized these interpretations with climate resilience theory to construct the Ecological Tawhid Climate Resilience Framework,

[17] Hannah Snyder, "Literature Review as a Research Method," *Journal of Business Research*, 2020, https://doi.org/10.1016/j.jbusres.2019.07.039.
[18] Klaus Krippendorff, *Content Analysis: An Introduction to Its Methodology*, 4th ed. (California: SAGE Publications, 2018), https://us.sagepub.com/en-us/nam/content-analysis/book258450.
[19] Abdul al-Hayy Al-Farmawi, *Metode Tafsir Maudhu'i: Suatu Pengantar* (Cairo: Dar al-Fikr al-'Arabi, 1994).
[20] Gade, "Muslim Environmentalisms and Environmental Ethics: Theory and Practice for Rights and Justice."

comprising ecological awareness, environmental stewardship, social resilience, adaptive action, and intergenerational sustainability.[21] The framework establishes conceptual relationships rather than empirically verified causal mechanisms.

The framework is intended for prospective application in Indonesian Muslim coastal communities through three stages: participatory identification of environmental risks, contextual translation of ecological principles into collective initiatives, and community-based evaluation of adaptation outcomes. Potential applications include environmental education, mangrove restoration, disaster preparedness, and early-warning communication involving religious leaders, fishing communities, local institutions, and disaster-management stakeholders.[22] These applications remain proposals rather than observed interventions. Their feasibility depends on local ecological conditions, institutional capacities, socioeconomic inequalities, and community participation.

This study acknowledges that integrating Qur'anic interpretation with climate resilience theory involves interpretive choices and potential conceptual bias. To strengthen analytical credibility, the researchers compared classical and contemporary exegesis, engaged interdisciplinary environmental scholarship, and distinguished theological propositions from empirically supported relationships. Alternative interpretations and contextual differences were considered, particularly because religious values may facilitate or constrain adaptive responses.[23] As no fieldwork or intervention-based assessment was conducted, the proposed framework requires empirical validation before claims about its practical effectiveness can be established.

RESULTS AND DISCUSSION

Ecological Tawhid as the Foundation of Human–Environmental Relations

The thematic analysis of Qur'anic passages identifies ecological *tawhid* as an ethical framework connecting divine unity, human responsibility, and environmental integrity. Rather than treating nature solely as an exploitable resource, this interpretation understands the natural world as part of God's creation, toward which humans bear moral obligations. Four interrelated principles constitute this framework: *khalifah* (stewardship), *amanah* (entrusted responsibility), *mizan* (balance), and *islah* (restoration and reform). Their integration situates ecological responsibility within Islamic theological consciousness.[24]

---

[21] K Al Dzahaby et al., "Tawakkal and Ikhtiar in Addressing Quarter-Life Crisis among Generation Z: A Thematic Interpretation of Q.S. Ar-Ra'd [13]:11 and At-Talaq [65]:3," *Al Muhafidz: Jurnal Ilmu Al-Qur'an Dan Tafsir* 6, no. 2 (2026): 237–54, https://doi.org/10.57163/4ffkxw51.

[22] N Mu'minin, "Peran SMP Muhammadiyah Bantul Yogyakarta (MUHIBA) Dalam Mewujudkan Pendidikan Agama Islam Yang Progresif Dan Moderat," *Jurnal Staika* 8, no. 2 (2025): 136–44, https://jurnal.staim-paciran.ac.id/index.php/staika/article/view/136.

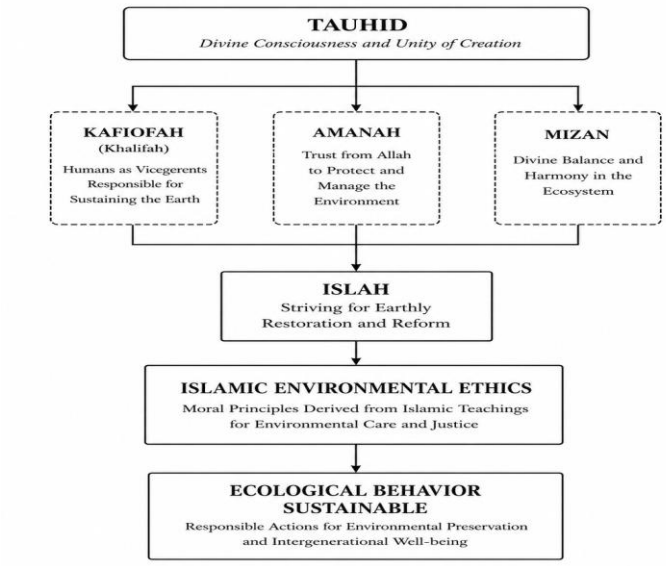
[23] Pratisti et al., "Religion and Adaptation in Drowning Villages: Muslim Communities' Responses to Flood and Abrasion on the Northern Coast of Java, Indonesia."

[24] Odeh Al-Jayyousi et al., "Re-Thinking Sustainable Development within Islamic Worldviews: A Systematic Literature Review," *Sustainability* 14, no. 12 (2022), https://doi.org/10.3390/su14127300.

QS. Al-Baqarah [2]:30 and Al-An'am [6]:165 establish the interpretive foundations of *khalifah*, emphasizing human accountability in exercising authority on earth. Within contemporary ecological interpretation, this responsibility is understood as stewardship rather than unrestricted ownership of natural resources. *Amanah* further articulates the moral obligations associated with this position. Meanwhile, Q. Ar-Rahman [55]:7–9 introduces *mizan* as a principle of divinely established balance and justice. Its ecological application provides an ethical basis for questioning practices that undermine environmental integrity. Q. Al-A'raf [7]:56 prohibits corruption after the earth has been set in order, while Q. Ar-Rum [30]:41 connects terrestrial and maritime corruption with human actions. Together, these passages support *islah* as a contemporary ethical orientation toward environmental protection and restoration.

This synthesis requires an important interpretive distinction. The Qur'an articulates theological and moral principles rather than contemporary climate science. Accordingly, ecological *tawhid* represents a contextual interpretation developed through dialogue between Qur'anic exegesis and environmental ethics, not a claim that modern climatic phenomena are directly explained by particular verses. This position resonates with Gade's emphasis on communal accountability, ecological justice, and the moral significance of human–nonhuman relationships.[25]

The four principles form a coherent ethical structure. *Tawhid* establishes theological orientation; *khalifah* defines stewardship; *amanah* establishes accountability; *mizan* provides a standard of balance and justice; and *islah* directs responsibility toward restorative action. Figure 1 illustrates these conceptual relationships. Their principal contribution lies in connecting religious consciousness with an ethical basis for environmental action without assuming that theological understanding necessarily produces sustainable behavior.



[25] Gade, "Muslim Environmentalisms and Environmental Ethics: Theory and Practice for Rights and Justice."

Figure 1. The Construction of Ecological Tawhid in Qur'anic Interpretation
Source: Authors' conceptual synthesis based on Q. 2:30, Q. 6:165, Q. 7:56, Q. 30:41, Q. 55:7–9, and classical and contemporary Qur'anic interpretations.

Climate Resilience in Contemporary Environmental Science

Contemporary resilience theory conceptualizes resilience as the capacity of social–ecological systems to respond to disturbance through adaptation, learning, and transformation. Folke et al. distinguish resilience, adaptability, and transformability as interconnected capacities operating across different scales.[26] Applied to coastal communities, resilience therefore involves more than maintaining existing conditions. It also requires the ability to reorganize social practices and institutions when environmental risks exceed existing adaptive capacities.

Research on Indonesian coastal communities confirms that resilience depends on interacting social, institutional, and ecological conditions. Maurischa et al. demonstrate that transformative resilience develops through changing capacities, social networks, and collaboration with external institutions.[27] Evidence from Semarang further identifies community leadership, resource mobilization, and social networks as important determinants of adaptive capacity.[28] These findings establish that cultural and religious resources may support resilience, but cannot substitute for material resources, effective governance, or technical adaptation.

From an Islamic ethical perspective, *sabr* (patience and perseverance), *tawakkal* (trust in God), and *ikhtiyar* (deliberate human effort) provide complementary orientations for responding to uncertainty. *Sabr* may sustain perseverance, while *tawakkal* offers spiritual reassurance. However, these values support adaptive action only when interpreted alongside practical responsibility and collective effort. Their relevance therefore depends on how communities translate religious commitments into risk awareness, cooperation, and informed environmental decisions.

The conceptual intersection between resilience theory and ecological *tawhid* lies in their complementary functions. Resilience theory explains the capacities required to respond to environmental disturbances, whereas ecological *tawhid* provides a normative rationale for responsible engagement. Their integration does not establish a causal relationship between religiosity and resilience. Instead, it

[26] Carl Folke et al., "Resilience Thinking: Integrating Resilience, Adaptability and Transformability," *Ecology and Society* 15, no. 4 (2010), https://doi.org/10.5751/ES-03610-150420.
[27] Saghita Desiyana Maurischa, Fikri Zul Fahmi, and Djoko Santoso Abi Suroso, "Transformative Resilience: Transformation, Resilience and Capacity of Coastal Communities in Facing Disasters in Two Indonesian Villages," *International Journal of Disaster Risk Reduction* 88 (2023), https://doi.org/10.1016/j.ijdrr.2023.103615.
[28] Konstantin Gisevius, Lisa-Michéle Niesters, and Boris Braun, "The Role of Community Leadership in Building Community Adaptive Capacity to Coastal Hazards: Insights from Neighborhood Networks in Semarang, Indonesia," *Environmental Science & Policy* 163 (2025), https://doi.org/10.1016/j.envsci.2024.103963.

identifies an ethical pathway through which religious values may become relevant to adaptive capacity.

Religious Narratives among Muslim Coastal Communities Facing Climate Risks

The literature on Indonesian Muslim coastal communities reveals that religious narratives shape how environmental changes are interpreted and negotiated. Pratisti et al. demonstrate that religion influences adaptation through local histories, communal experiences, and everyday religious practices. Importantly, these influences may facilitate or constrain adaptation depending on their social context.[29] Religious narratives must therefore be examined as situated cultural resources rather than uniform determinants of environmental behavior.

The synthesis identifies four interconnected narratives relevant to coastal resilience. First, the narrative of *amanah* frames environmental protection as an entrusted moral obligation. Second, the narrative of *khalifah* emphasizes accountability for resource management and the prevention of ecological degradation. Third, the sustainability narrative extends responsibility toward future generations. Fourth, the ecological justice narrative emphasizes the equitable distribution of environmental benefits, risks, and adaptation resources. These narratives connect spiritual meanings with collective ethical obligations.

Their potential relevance emerges through social mechanisms. Shared environmental values may strengthen communal trust, facilitate cooperation, and encourage participation in collective initiatives. Religious institutions may also provide organizational networks through which ecological knowledge and adaptation information circulate. Jenkins, Berry, and Kreider demonstrate the broader significance of religion in shaping climate-related meanings and public engagement.[30] Nevertheless, Koehrsen emphasizes that Muslim responses to climate change remain diverse and that environmental awareness does not necessarily translate into practical action.[31]

Accordingly, religious narratives can be conceptualized as potential *ecological social capital*: culturally embedded meanings and relationships that may support collective environmental responsibility. However, such capital becomes relevant to adaptation only when accompanied by inclusive participation, institutional coordination, and access to resources. Recent scholarship similarly demonstrates that religious actors can promote, remain passive toward, or obstruct sustainability initiatives according to their organizational and sociopolitical circumstances.[32]

[29] Pratisti et al., "Religion and Adaptation in Drowning Villages: Muslim Communities' Responses to Flood and Abrasion on the Northern Coast of Java, Indonesia."
[30] Willis Jenkins, Evan Berry, and Luke Beck Kreider, "Religion and Climate Change," *Annual Review of Environment and Resources* 43 (2018): 85–108, https://doi.org/10.1146/annurev-environ-102017-025855.
[31] Koehrsen, "Muslims and Climate Change: How Islam, Muslim Organizations, and Religious Leaders Influence Climate Change Perceptions and Mitigation Activities."
[32] Koehrsen and Ives, "The Multiple Roles of Religious Actors in Advancing a Sustainable Future."

Integration of Ecological Tawhid and Climate Resilience

The principal conceptual finding is the Ecological Tawhid Climate Resilience Framework, which integrates Qur'anic ecological ethics with five dimensions of community resilience: ecological awareness, environmental stewardship, social resilience, adaptive action, and intergenerational sustainability. The framework distinguishes the normative foundations of environmental responsibility from the social and institutional mechanisms through which such responsibility may inform adaptation.

Ecological awareness represents the recognition of environmental integrity as an ethical concern grounded in *tawhid*. Environmental stewardship translates *khalifah* and *amanah* into responsibility for natural resources. Social resilience concerns solidarity, cooperation, and collective capacities for managing risk. Adaptive action connects *islah* with environmental restoration, disaster preparedness, and sustainable resource management. Intergenerational sustainability extends *mizan* and ecological justice toward the protection of future generations.

Table 1. Ecological Tawhid Climate Resilience Framework

Conceptual component	Resilience dimension	Proposed function
Ecological Tawhid	Ecological awareness	Establishing environmental consciousness grounded in divine unity
Environmental Trust	Environmental stewardship	Translating moral responsibility into accountable resource management
Community Solidarity	Social resilience	Supporting cooperation and collective adaptive capacity
Ecological Adaptation	Adaptive action	Encouraging restoration, preparedness, and sustainable environmental practices
Intergenerational Justice	Intergenerational sustainability	Protecting ecological resources and the interests of future generations

Source: Authors' conceptual synthesis of Qur'anic ecological principles and contemporary climate resilience scholarship.

The framework proposes a conditional relationship between ethical orientation and adaptive capacity. Religious values may inform environmental awareness; shared responsibility may support social cooperation; and institutional participation may facilitate adaptive action. However, these relationships depend on community interpretation, leadership, socioeconomic resources, and governance arrangements. They should therefore be understood as theoretically derived propositions rather than empirically verified causal pathways.

This distinction also clarifies the study's contribution to Islamic ecotheology. Rather than treating religion merely as an instrument for achieving predetermined environmental goals, the framework recognizes its ethical, social, and political dimensions. Bagir's critique of instrumental approaches to Muslim

environmentalism reinforces the need to examine lived religious practices, environmental justice, and unequal power relations.[33] The framework consequently positions ecological *tawhid* as a normative resource whose relevance must be evaluated within specific social and ecological contexts.

The framework offers a conceptual basis for developing context-sensitive climate adaptation among Indonesian Muslim coastal communities. *Khalifah* and *amanah* may inform environmental education and responsible coastal resource management, while *mizan* and *islah* provide ethical justifications for ecosystem protection and restoration.[34] Potential applications include mangrove rehabilitation, sustainable fisheries management, participatory risk assessment, and community-based disaster preparedness. These initiatives require collaboration among religious leaders, fishing communities, local institutions, and environmental authorities.

However, religious motivation cannot independently overcome structural vulnerability. Research on mangrove-based coastal protection in Demak demonstrates the importance of social capital, representative participation, and institutional coordination for inclusive environmental governance.[35] Adaptation initiatives must therefore address unequal access to resources and decision-making, particularly among economically vulnerable households, women, and younger generations. Religious narratives may provide ethical legitimacy, but effective adaptation also depends on ecological knowledge, public investment, and accountable institutions.

The framework's practical contribution lies in identifying how theological principles might inform participatory adaptation, not in demonstrating that such integration has already improved climate resilience. Future empirical research should examine whether ecological religious education influences environmental awareness, whether religious networks facilitate collective adaptation, and whether resulting initiatives improve adaptive capacity and distributive justice.[36] These assessments should also investigate circumstances in which religious interpretations discourage preventive action or reinforce existing inequalities.

Thus, the study contributes an integrative conceptual model linking Qur'anic ecological ethics, social cooperation, and climate resilience while maintaining a clear

[33] Zainal Abidin Bagir, "Beyond Instrumentalization: Lived Religion, Politics, and Justice in Indonesian Muslim Environmentalisms," *Studia Islamika* 32, no. 3 (2025): 439–66, https://doi.org/10.36712/sdi.v32i3.46652.

[34] Z Fikar et al., "Reconstruction of Islamic Family Education for the Interest in Reading and Writing the Qur'an for TPQ Children," *IQRO: Journal of Islamic Education* 9, no. 2 (2026): 490–509, https://doi.org/10.24256/iqro.v9i2.10848.

[35] Annisa Triyanti et al., "Social Capital, Interactive Governance and Coastal Protection: The Effectiveness of Mangrove Ecosystem-Based Strategies in Promoting Inclusive Development in Demak, Indonesia," *Ocean & Coastal Management* 150 (2017): 3–11, https://doi.org/10.1016/j.ocecoaman.2017.10.017.

[36] A Wildani et al., "Rekonstruksi Etika Qurani Dalam Pembelajaran Berbasis Artificial Intelligence Bagi Guru PAI MAN 1 Surakarta," *TAUJIH* 8, no. 1 (2026): 41–67, https://e-journal.uqi.ac.id/index.php/taujih/article/view/2092.

distinction between theological propositions, proposed mechanisms, and measurable adaptation outcomes. Its significance lies in identifying conditions under which ecological *tawhid* may inform more inclusive and sustainable responses to coastal environmental risks.

CONCLUSION

This study establishes ecological *tawhid* as a conceptual bridge between Qur'anic environmental ethics and climate resilience in Muslim coastal communities. Addressing the first research question (RQ1), the findings demonstrate that ecological *tawhid* constructs an ethical framework through four interconnected principles: *khalifah* (stewardship), *amanah* (entrusted responsibility), *mizan* (balance), and *islah* (restoration). Together, these principles establish environmental responsibility as an integral dimension of Islamic theological consciousness. Regarding the second research question (RQ2), their integration with contemporary resilience theory produces the Ecological Tawhid Climate Resilience Framework, encompassing ecological awareness, environmental stewardship, social resilience, adaptive action, and intergenerational sustainability. Religious narratives may support these dimensions through ethical motivation, collective solidarity, and institutional cooperation. However, their effectiveness depends on local interpretations, socioeconomic conditions, governance structures, and access to adaptive resources. Religious commitment alone therefore cannot guarantee climate resilience. The study's principal contribution lies in specifying the conceptual mechanisms connecting Qur'anic ecological principles with community-based adaptation, thereby advancing Islamic ecotheology beyond normative environmental discourse. As a conceptual study without field-based validation, its proposed relationships remain theoretical. Future research should empirically examine their applicability, adaptive effectiveness, and implications for environmental justice in Muslim coastal communities.

BIBLIOGRAPHY

Al-Farmawi, Abdul al-Hayy. *Metode Tafsir Maudhu'i: Suatu Pengantar*. Cairo: Dar al-Fikr al-'Arabi, 1994.

Al-Jayyousi, Odeh, Evren Tok, Shereeza Mohamed Saniff, Wan Norhaniza Wan Hasan, Noora Abdulla Janahi, and Abdurahman J Yesuf. "Re-Thinking Sustainable Development within Islamic Worldviews: A Systematic Literature Review." *Sustainability* 14, no. 12 (2022). https://doi.org/10.3390/su14127300.

Bagir, Zainal Abidin. "Beyond Instrumentalization: Lived Religion, Politics, and Justice in Indonesian Muslim Environmentalisms." *Studia Islamika* 32, no. 3 (2025): 439–66. https://doi.org/10.36712/sdi.v32i3.46652.

Berrang-Ford, Lea. "A Systematic Global Stocktake of Evidence on Human Adaptation to Climate Change." *Nature Climate Change* 11 (2021): 989–1000. https://doi.org/10.1038/s41558-021-01170-y.

Bott, Lisa-Michéle, Tilo Schöne, Julia Illigner, Mahmud Haghshenas Haghighi, Konstantin Gisevius, and Boris Braun. "Land Subsidence in Jakarta and

Semarang Bay—The Relationship between Physical Processes, Risk Perception, and Household Adaptation." *Ocean & Coastal Management* 211 (2021). https://doi.org/10.1016/j.ocecoaman.2021.105775.

Diningrum, Melinda Retno, Ahmad Nurrohim, and Iqbal Nurul Yaqin. "Environmental Deterioration in Tafsir Maqasidi: A Comparative Study of Tafsir Al-Munir and Al-Azhar." *ZAD Al-Mufassirin* 6, no. 2 (2024): 270–91. https://doi.org/10.55759/zam.v6i2.259.

Dzahaby, K Al, A Rhain, Z Zulfikar, and M F Salim. "Tawakkal and Ikhtiar in Addressing Quarter-Life Crisis among Generation Z: A Thematic Interpretation of Q.S. Ar-Ra'd [13]:11 and At-Talaq [65]:3." *Al Muhafidz: Jurnal Ilmu Al-Qur'an Dan Tafsir* 6, no. 2 (2026): 237–54. https://doi.org/10.57163/4ffkxw51.

Eriksen, Siri, E Lisa F Schipper, Morgan Scoville-Simonds, Katharine Vincent, Hans Nicolai Adam, Nick Brooks, and Brian Harding. "Adaptation Interventions and Their Effect on Vulnerability in Developing Countries: Help, Hindrance or Irrelevance?" *World Development* 141 (2021). https://doi.org/10.1016/j.worlddev.2020.105383.

Fikar, Z, N Alfarisy, K Harisin, M I Saputra, and J K Hidayatulloh. "Reconstruction of Islamic Family Education for the Interest in Reading and Writing the Qur'an for TPQ Children." *IQRO: Journal of Islamic Education* 9, no. 2 (2026): 490–509. https://doi.org/10.24256/iqro.v9i2.10848.

Folke, Carl, Stephen R Carpenter, Brian Walker, Marten Scheffer, Terry Chapin, and Johan Rockström. "Resilience Thinking: Integrating Resilience, Adaptability and Transformability." *Ecology and Society* 15, no. 4 (2010). https://doi.org/10.5751/ES-03610-150420.

Gade, Anna M. "Muslim Environmentalisms and Environmental Ethics: Theory and Practice for Rights and Justice." *The Muslim World* 113, no. 3 (2023): 242–59. https://doi.org/10.1111/muwo.12474.

Gisevius, Konstantin, Lisa-Michéle Niesters, and Boris Braun. "The Role of Community Leadership in Building Community Adaptive Capacity to Coastal Hazards: Insights from Neighborhood Networks in Semarang, Indonesia." *Environmental Science & Policy* 163 (2025). https://doi.org/10.1016/j.envsci.2024.103963.

Jaakkola, Elina. "Designing Conceptual Articles: Four Approaches." *AMS Review* 10 (2020): 18–26. https://doi.org/10.1007/s13162-020-00161-0.

Jenkins, Willis, Evan Berry, and Luke Beck Kreider. "Religion and Climate Change." *Annual Review of Environment and Resources* 43 (2018): 85–108. https://doi.org/10.1146/annurev-environ-102017-025855.

Koehrsen, Jens. "Muslims and Climate Change: How Islam, Muslim Organizations, and Religious Leaders Influence Climate Change Perceptions and Mitigation Activities." *WIREs Climate Change* 12 (2021): e702. https://doi.org/10.1002/wcc.702.

Koehrsen, Jens, and Christopher D Ives. "The Multiple Roles of Religious Actors in Advancing a Sustainable Future." *Ambio* 54, no. 8 (2025): 1318–33.

https://doi.org/10.1007/s13280-025-02166-0.

Krippendorff, Klaus. *Content Analysis: An Introduction to Its Methodology*. 4th ed. California: SAGE Publications, 2018. https://us.sagepub.com/en-us/nam/content-analysis/book258450.

Maurischa, Saghita Desiyana, Fikri Zul Fahmi, and Djoko Santoso Abi Suroso. "Transformative Resilience: Transformation, Resilience and Capacity of Coastal Communities in Facing Disasters in Two Indonesian Villages." *International Journal of Disaster Risk Reduction* 88 (2023). https://doi.org/10.1016/j.ijdrr.2023.103615.

Mu'minin, N. "Peran SMP Muhammadiyah Bantul Yogyakarta (MUHIBA) Dalam Mewujudkan Pendidikan Agama Islam Yang Progresif Dan Moderat." *Jurnal Staika* 8, no. 2 (2025): 136–44. https://jurnal.staim-paciran.ac.id/index.php/staika/article/view/136.

O'Leary, Zina. *The Essential Guide to Doing Your Research Project*. 4th ed. London: SAGE Publications, 2021. https://study.sagepub.com/oleary4e.

Olazabal, Marta, Maria Ruiz de Gopegui, Emma L Tompkins, Kayin Venner, and Rachel Smith. "A Cross-Scale Worldwide Analysis of Coastal Adaptation Planning." *Environmental Research Letters* 14, no. 12 (2019). https://doi.org/10.1088/1748-9326/ab5532.

Pratisti, Siti Aliyuna, Zainal Abidin Bagir, Heddy Shri Ahimsa-Putra, and Michael S Northcott. "Religion and Adaptation in Drowning Villages: Muslim Communities' Responses to Flood and Abrasion on the Northern Coast of Java, Indonesia." *Worldviews* 28, no. 1 (2024): 46–69. https://doi.org/10.1163/15685357-tat00011.

Purnomo, Agus Heri, Tikkyrino Kurniawan, Alan Ray Farandy, Tenny Apriliani, Nurlaili, Masyhuri Imron, and Asa Jose Sajise. "Revisiting the Climate Change Adaptation Strategy of Jakarta's Coastal Communities." *Ocean & Coastal Management* 253 (2024). https://doi.org/10.1016/j.ocecoaman.2024.107112.

Snyder, Hannah. "Literature Review as a Research Method." *Journal of Business Research*, 2020. https://doi.org/10.1016/j.jbusres.2019.07.039.

Triyanti, Annisa, Maarten Bavinck, Joyeeta Gupta, and Muh Aris Marfai. "Social Capital, Interactive Governance and Coastal Protection: The Effectiveness of Mangrove Ecosystem-Based Strategies in Promoting Inclusive Development in Demak, Indonesia." *Ocean & Coastal Management* 150 (2017): 3–11. https://doi.org/10.1016/j.ocecoaman.2017.10.017.

United Nations Environment Programme (UNEP). "Adaptation Gap Report 2024: Come Hell and High Water." Nairobi: UNEP, 2024. https://doi.org/10.59117/20.500.11822/46497.

Wahidin, Baso Muh, Ahmad Nurrohim, and Zulfikar. "The Concept of Tawāzun in Hamka's Tafsir Al-Azhar and Its Relevance to the Phenomenon of Hustle Culture." *Community: Jurnal Hasil Penelitian Dan Pengabdian Masyarakat* 5, no. 1 (2026): 1009–26. https://doi.org/10.61166/community.v5i1.264.

Wildani, A, A R P Armain, A F Al Ghozi, and J A Murtadha. "Rekonstruksi Etika Qurani Dalam Pembelajaran Berbasis Artificial Intelligence Bagi Guru PAI

MAN 1 Surakarta." *TAUJIH* 8, no. 1 (2026): 41–67. https://e-journal.uqi.ac.id/index.php/taujih/article/view/2092.

Zulfikar, Z. "Islamic Ecotheology on the Carbon Footprint of Artificial Intelligence in Contemporary Digital Civilization." *Ishraqi* 25, no. 1 (2026): 15–32. https://doi.org/10.23917/ishraqi.v25i1.17582.

Zulfikar, Zulfikar, Herliana Setyaning Pramesti, Khairunnisa Radhwa Nazihah, Khoirul Harisin, and Muhammad Naufal Zulfikar. "Maqāṣidī Interpretation of Environmental Verses as a Solution to the Ecological Crisis and Global Climate Change." *Ibn Abbas* 9, no. 1 (2026): 89–105.