

HARMONIZATION OF FOSTER'S POLITICAL ECOLOGY AND ISLAMIC THOUGHT: A STRUCTURAL SPIRITUAL APPROACH TO INDONESIA'S ENVIRONMENTAL CRISIS

**Afif Kholidin; Khoirul Fathoni; Ali Musyafak; Saifudin Zuhri;
Ida Nur Lailatul Kodriyah; Fathul Mufid**

Sekolah Tinggi Agama Islam Islamic Centre Demak; Institut Agama Islam Sunan Giri Ponorogo; Sekolah Tinggi Agama Islam Islamic Centre Demak; Ma'had Aly Al Iman; Universitas Islam Nahdlatul Ulama Jepara; Universitas Islam Negeri Sunan Kudus
kholidin.afif@gmail.com; khoirulfathoni@insuriponorogo.ac.id; musarosi1983@gmail.com; saifudinzuhrisaja@gmail.com; ela.lailaa05@gmail.com; fathulmufid@iainkudus.ac.id

Abstract: This article proposes an interdisciplinary framework that bridges Marxist political ecology and Islamic ethics to address ecological injustice in Muslim-majority contexts. Existing scholarship reveals a critical research gap: while political ecology particularly John Bellamy Foster's theory of the metabolic rift diagnoses capitalism as the systemic driver of ecological degradation, it often overlooks the spiritual and ethical dimensions of human nature relations. Conversely, Islamic environmental thought emphasizes the theological values of stewardship (*khalifah*), justice (*'adl*), and balance (*mizan*), yet tends to lack a rigorous structural critique of capitalist modes of production and consumption. To overcome this epistemic divide, the study synthesizes these two perspectives into a hybrid model of ecological justice that is both structurally critical and spiritually grounded. Theoretically, it advances political ecology by reintroducing religion not merely as moral discourse but as an analytical category capable of shaping socio-ecological critique. Practically, it outlines four domains of implementation: (1) ecological justice policies through environmental *zakat* and *waqf*; (2) integration of eco-ethical principles into Islamic education; (3) mosque-centred community empowerment; and (4) the adoption of green technologies aligned with sustainability (*istidāmah*). This integrated framework enriches global sustainability debates by offering a non-secular paradigm rooted in Islamic ethical thought, while positioning Indonesia as a potential model for environmentally responsible Muslim societies that combine structural reform with moral transformation.

Keywords: Ecological Crisis; Foster; Islamic Values; Political Ecology

Introduction

The ongoing ecological crisis represents one of the most profound global challenges of the twenty-first century, posing an existential threat to humanity and other forms of life.¹ Phenomena such as climate change, deforestation, land degradation, pollution, and biodiversity loss underscore the severity of environmental

¹ Álvaro J. de Regil, "The Unbearable Unawareness of Our Ecological Existential Crisis," *Monthly Review*, 2023, 1–24.

degradation driven by unsustainable human activities.² The Intergovernmental Panel on Climate Change (IPCC) identifies anthropogenic factors as the dominant drivers of global warming, accelerating climate change and disrupting ecosystems worldwide in 2021.³ This growing ecological imbalance not only endangers natural systems but also exacerbates social and economic inequalities, underscoring the urgency of transformative frameworks that integrate structural, ethical, and spiritual dimensions of environmental responsibility. Among the leading figures in political ecology, John Bellamy Foster attributes the ecological crisis to the structural logic of capitalism.⁴ Through his concept of the metabolic rift, Foster describes the disruption of the once-symbiotic relationship between humans and nature under capitalist production.⁵ Capitalism, he contends, extracts both natural and human resources beyond ecological limits, severing the metabolic exchange that sustains life.⁶ Addressing this crisis, therefore, demands not only technical or policy-based reforms but radical structural transformation of the socio-economic order sustaining exploitative relations between society and nature.

However, political ecology largely grounded in Western materialist epistemologies often neglects the spiritual and ethical dimensions that could serve as transformative forces in reimagining ecological relations.⁷ This limitation highlights the need to integrate political ecology with Islamic theological and ethical frameworks, which offer distinct yet complementary insights into humanity's relationship with the natural world. Within the Indonesian context, where Islam forms the moral and cultural foundation of society, Islamic teachings provide a comprehensive ontological and ethical paradigm for understanding and restoring ecological harmony.

In Islamic thought, humans are regarded as stewards (*khalifah*) entrusted with the responsibility to maintain balance (*mizan*) and ensure the sustainability of creation. The Qur'an and Hadith emphasize principles such as justice ('*adl*), trusteeship (*amānah*), moderation (*wasatiyyah*), and gratitude (*syukr*), which collectively guide

² Vivek Saxena, "Water Quality, Air Pollution, and Climate Change: Investigating the Environmental Impacts of Industrialization and Urbanization," *Water, Air, & Soil Pollution* 236, no. 2 (2025): 73, <https://doi.org/10.1007/s11270-024-07702-4>.

³ IPCC Sixth Assessment Report: The Physical Science Basis, The Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2021: The Physical Science Basis*, 2021, <https://www.ipcc.ch/report/ar6/wg1/>.

⁴ John Bellamy Foster, "Ecology and the Future of History," *Monthly Review* 74, no. 122 (2022): 119–34, https://doi.org/10.14452/MR-074-03-2022-07_9.

⁵ Kai Heron, "Dialectical Materialisms, Metabolic Rifts and the Climate Crisis: A Lacanian/Hegelian Perspective," *Science & Society: A Journal of Marxist Thought and Analysis* 85, no. 4 (2021): 501–26, <https://doi.org/10.1521/siso.2021.85.4.501>.

⁶ Phaninee Naruetharadhol et al., "Assessing the Role of Public Policy in Fostering Global Eco-Innovation," *Journal of Open Innovation: Technology, Market, and Complexity* 10, no. 2 (2024): 1–11, <https://doi.org/10.1016/j.joitmc.2024.100294>.

⁷ Dominic Wilkins, "Where Is Religion in Political Ecology?," *Progress in Human Geography* 45, no. 2 (2021): 276–97, <https://doi.org/10.1177/0309132520901772>.

ethical conduct toward nature.⁸ These values align closely with the political ecology emphasis on equity and sustainability, yet they extend beyond material structures by embedding ecological responsibility within a moral-spiritual framework.⁹ In this view, unrestrained exploitation of nature constitutes not only ecological harm but also a moral violation of humanity's divine mandate.¹⁰ As a result, there is a conceptual and methodological gap: (1) Political ecology rarely incorporates religious ethical frameworks as analytical tools, treating them as peripheral rather than integral to structural transformation. (2) Islamic ecological discourse has not been systematically integrated with structural Marxist or socio-political analyses, thus failing to challenge the macroeconomic forces such as capitalist accumulation and resource commodification that drive ecological destruction. (3) Empirical applications of this integration, especially in Muslim-majority contexts like Indonesia, remain underdeveloped, despite the nation's potential to operationalize Islamic ethics within environmental policy, education, community mobilization, and technological innovation. This study addresses this gap by proposing a hybrid framework that synthesizes Foster's structural analysis of capitalism with Islamic theological ethics, positioning spirituality not as an auxiliary moral appeal but as a transformative epistemology capable of reforming ecological governance and public policy.

Theoretically, this approach expands political ecology by incorporating religious worldviews as critical components of environmental analysis. Practically, it outlines pathways for implementing ecological justice through faith-based education, *zakat* and *waqf-supported sustainability programs*, *mosque-based community empowerment*, and environmentally responsible technology development guided by *istidāmah* (sustainability). Ultimately, this integrative framework contributes to global sustainability discourse by offering a non-secular alternative grounded in ethical pluralism. By harmonizing structural critique and spiritual ethics, it envisions an ecological paradigm that is both materially transformative and morally grounded. Furthermore, it situates Indonesia as a potential model for Muslim-majority nations seeking to reconcile faith, justice, and sustainability in confronting the planetary crisis.

Method

This study aims to harmonize John Bellamy Foster's political ecology framework with Islamic ethical principles as an integrative approach to addressing Indonesia's ecological crisis. Employing a qualitative, library-based research design,

⁸ Abdul Wahed Jalal Nori and Homam Altabaa, "Reframing Sustainable Development through Islamic Futures Thinking: Ethical Foundations and Strategic Implications," *Religions* 20 (2025): 54–69.

⁹ Isa Yilmaz, "Exploring the Foundations of Islamic Moral Economy: A Return to Substantive Morality," *International Journal of Ethics and Systems* (2024): <https://doi.org/10.1108/IJOES-03-2024-0085>.

¹⁰ Nadia Rahma et al., "Bridging Circular Economy and Islamic Economic Principles: Toward a Sustainable Economic Model," *International Journal of Ethics and Systems* (2025): 1–22, <https://doi.org/10.1108/IJOES-01-2025-0038>.

the study systematically collects and analyzes secondary data from academic books, peer-reviewed journal articles, and relevant policy documents to ensure comprehensive and nuanced coverage of the topic. The analytical framework applies an interactive process that combines inductive and deductive reasoning to align Foster's concept of the *metabolic rift* with Islamic theological and ethical tenets pertaining to environmental *khalifah* (stewardship), *mizān*, and *'adl*. Through this synthesis, the study seeks to construct a theoretical model that bridges the structural critique of capitalism in political ecology with the moral and spiritual imperatives of Islam. Ultimately, the research underscores the practical relevance of integrating Foster's structural analysis with Islamic ethical values as a transformative framework for reorienting environmental policy and governance in Indonesia.

Result and Discussion

The ecological crisis in Indonesia has reached a critical and alarming stage, reflected in accelerating rates of deforestation, environmental pollution, biodiversity loss, and the overexploitation of natural resources.¹¹ This situation necessitates not only technical or policy-oriented solutions but also a deeper paradigmatic transformation that integrates ethical, spiritual, and socio-political dimensions of environmental responsibility.

Deforestation and Forest Degradation

In 2023, Indonesia experienced a loss of approximately 1.18 million hectares of forest, positioning the nation among those with the highest deforestation rates globally.¹² According to the Indonesian Environmental Forum (WALHI), government initiatives such as social forestry programs have failed to achieve their intended outcomes. Although the Ministry of Environment and Forestry reported a relative decline in deforestation rates by 2024, only 6.37 million hectares of land have been allocated for community-based forest management, representing merely half of the 12.7 million hectares target.¹³ The persistence of deforestation is driven by multiple structural and institutional factors, including the high economic value of forest commodities, weak governance and enforcement mechanisms, and geographic conditions that facilitate access to forested areas. Additionally, illegal logging, land conversion for plantations, settlement expansion, infrastructure projects, and industrial activities remain dominant contributors to forest loss.¹⁴ These patterns

¹¹ Hendra Gunawan et al., "Integrating Social Forestry and Biodiversity Conservation in Indonesia," *Forests* 13, no. 12 (2022), <https://doi.org/10.3390/f13122152>.

¹² Writing Team, *The State of Indonesia's Forests 2024: Toward Sustainability of Forest Ecosystems in Indonesia* 4. (Ministry of Environment and Forestry Republic of Indonesia, 2024).

¹³ Foster et al., *The Ecological Rift*.

¹⁴ Abdul Mutolib et al., "Faktor Penarik dan Pendorong Deforestasi Hutan di Kabupaten Dharmasraya, Sumatra Barat," *Journal of Tropical Upland Resources* 1, no. 1 (2019): 161–70, <https://doi.org/10.23960/jtur.vol1no1.2019.20>.

reveal that Indonesia's deforestation crisis is not only an ecological issue but also a manifestation of deeper systemic contradictions within its political economy.

The Central Bureau of Statistics (BPS), in its January 2024 report, provides further evidence through detailed deforestation data covering the period 2013-2022, illustrating the persistent scale and spatial distribution of forest loss across the archipelago.¹⁵

Year	Area (Ha)
2013-2014	397.370,90
2014-2015	1.092.181,50
2015-2016	629.176,90
2016-2017	480.010,80
2017-2018	439.439,10
2018-2019	462.458,50
2019-2020	115.459,80
2020-2021	120.705,80
2021-2022	104.032,50

Table 1. Deforestation data in Indonesia from 2013 to 2022

Water Pollution

The Ministry of Environment and Forestry reported that in 2020, Indonesia generated approximately 67.8 million tons of solid waste, with an annual average of around 40 million tons between 2021 and 2024. Given a national population of roughly 270 million people, this figure corresponds to an estimated 0.148 tons of waste per capita annually, or nearly 0.5 kilograms per day.¹⁶ Such data indicate a persistent and unsustainable pattern of consumption and waste generation that places significant pressure on existing waste management infrastructure.

According to the World Bank (2018), Indonesia ranks among the world's largest contributors to marine pollution, releasing approximately 12.7 million tons of waste into the oceans annually comprising about 9 million tons of plastic waste and 3.2 million tons of plastic straws. This situation reflects both the magnitude of domestic waste production and the deficiencies in national waste governance.¹⁷ Furthermore, major rivers across Indonesia are heavily contaminated due to the continuous discharge of household, industrial, and agricultural waste into

¹⁵ Badan Pusat Statistik, *Deforestation Rate (Netto) in Indonesia, Inside and Outside Forest Area 2013-2022 (Ha/Year)*, Monthly (Jakarta, 2024).

¹⁶ Kementerian Lingkungan Hidup dan Kehutanan RI, "Hari Peduli Sampah Nasional: Atasi Sampah Plastik dengan Cara Produktif," SIPSN, 2024, <https://sipsn.menlhk.go.id/sipsn/>.

¹⁷ Herliwati Herliwati et al., "Analisis Indeks Pencemaran dan Daya Tampung Beban Pencemaran Sungai Jaing Kabupaten Tabalong Provinsi Kalimantan Selatan," *Fish Scientiae* 11, no. 1 (2021): 70-82, <https://doi.org/10.20527/fishscientiae.v11i1.173>.

waterways.¹⁸ The lack of integrated waste management systems, coupled with limited public environmental awareness, has exacerbated the decline in water quality and contributed to broader ecological and public health risks.



Figure 1. The condition of Indonesian waters¹⁹

Biodiversity Crisis

The loss of natural habitats resulting from deforestation and other anthropogenic activities has markedly accelerated the decline of biodiversity across Indonesia.²⁰ The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) warns of a critical downward trend in biodiversity throughout the Asia-Pacific region, with Indonesia identified as one of the most severely affected nations.²¹ According to the International Union for Conservation of Nature (IUCN), the country is home to approximately 1,217 endangered animal species out of 41,338 globally, alongside 977 endangered plant species, placing it among the highest globally in terms of biodiversity loss.

The primary direct threats to Indonesia's biodiversity include illegal logging, poaching, and overexploitation of wildlife for consumption and commercial trade.²² Meanwhile, indirect threats such as habitat fragmentation, land use conversion for

¹⁸ Tyas Mutiara Basuki et al., "Water Pollution of Some Major Rivers in Indonesia: The Status, Institution, Regulation, and Recommendation for Its Mitigation," *Polish Journal of Environmental Studies* 33, no. 4 (2024): 3515–30, <https://doi.org/10.15244/pjoes/178532>.

¹⁹ Alfajri Rio, "Sungaiku Sayang, Sungaiku Malang: Ancaman Bagi Sungai-Sungai di Indonesia," *Greeneration Foundation*, March 27, 2021, <https://greeneration.org/publication/green-info/sungaiku-sayang-sungaiku-malang-ancaman-bagi-sungai-sungai-di-indonesia/>.

²⁰ Yan-Ling Tan et al., "Habitat Change and Biodiversity Loss in South and Southeast Asian Countries," *Environmental Science and Pollution Research* 29, no. 42 (2022): 63260–76, <https://doi.org/10.1007/s11356-022-20054-y>.

²¹ Yayoi Takeuchi et al., "The Asia-Pacific Biodiversity Observation Network: 10-Year Achievements and New Strategies to 2030," *Ecological Research* 36, no. 2 (2021): 232–57, <https://doi.org/10.1111/1440-1703.12212>.

²² Vincent Nijman et al., "Disentangling the Legal and Illegal Wildlife Trade—Insights from Indonesian Wildlife Market Surveys," *Animals* 12, no. 5 (2022): 628, <https://doi.org/10.3390/ani12050628>.

plantations, and environmental pollution exacerbate the degradation of ecosystems vital for species survival.²³ These combined pressures disrupt ecological balance, weaken natural resilience, and diminish ecosystem services critical to both environmental sustainability and human welfare.

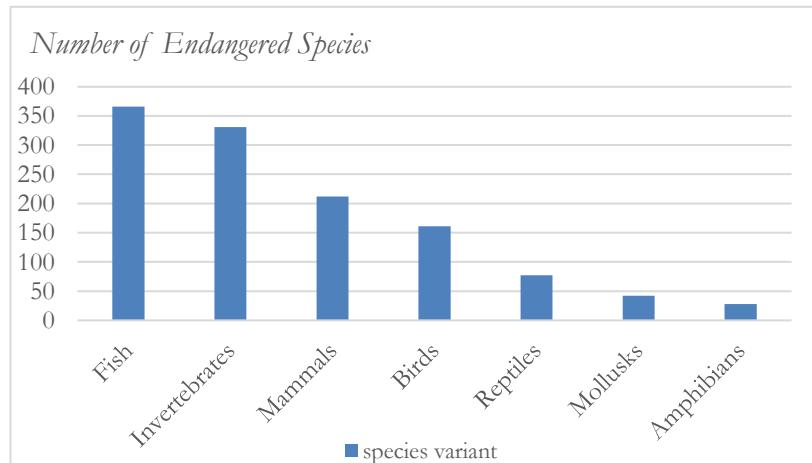


Figure 2. Data on the Biodiversity Crisis in Indonesia²⁴

Air Pollution

Air pollution in Indonesia is primarily driven by vehicular emissions, industrial activities, and various combustion processes.²⁵ In August 2023, Jakarta was reported by the Air Quality Index (AQI) as the city with the worst air quality in the world, surpassing Lahore, Pakistan.²⁶ The health consequences of this persistent pollution are severe, manifesting in a rising incidence of respiratory diseases such as tuberculosis (TBC) and acute respiratory infections (ARI), as well as increased mortality rates.²⁷ Between January and October 2023, an estimated 8,100 deaths in

²³ Paremmal Sarath et al., “Anthropogenic Threats and Habitat Degradation Challenge the Conservation of Palm Genetic Resources an Appraisal of Current Status, Threats and Look-Ahead Strategies,” *Biodiversity and Conservation* 32, no. 2 (2023): 417–37, <https://doi.org/10.1007/s10531-022-02512-8>.

²⁴ Agus Setiawan, “Keanekaragaman Hayati Indonesia: Masalah dan Upaya Konservasinya,” *Indonesian Journal of Conservation* 11, no. 1 (2022): 13–21, <https://doi.org/10.15294/ijc.v1i1.34532>.

²⁵ Rizky Aulia Rahman et al., “The Effect of Growth, Deforestation, Forest Fires, and Volcanoes on Indonesian Regional Air Quality,” *Journal of Cleaner Production* 457 (2024): 142311, <https://doi.org/10.1016/j.jclepro.2024.142311>.

²⁶ Ivan Richard Sugiarto et al., “Penyelesaian Masalah (Studi Komparasi Pengaturan Polusi Udara Menurut Hukum Negara Indonesia dan Swiss),” *INNOVATIVE: Journal Of Social Science Research* 4, no. 2 (2024): 4284–4246.

²⁷ Alexys Monoson et al., “Air Pollution and Respiratory Infections: The Past, Present, and Future,” *Toxicological Sciences* 192, no. 1 (2023): 3–14, <https://doi.org/10.1093/toxsci/kfad003>.

Jakarta were directly linked to poor air quality.²⁸ Industrial emissions, in particular, remain a dominant source of atmospheric pollutants in the Greater Jakarta (Jabodetabek) region, exacerbating environmental degradation and public health risks.²⁹

The persistence of air pollution thus represents not only a technical or environmental challenge but also a systemic governance failure a manifestation of the metabolic rift between economic growth and ecological sustainability. The following is a list of the ten cities in Indonesia with the highest pollution levels, measured in AQI+ units.³⁰

Rank	City/District	AQI+ US
1	Bandung	180
2	Tangerang	158
3	Medan	125
4	South Tangerang	121
5	Jakarta	117
6	Depok	116
7	Serpong	110
8	Palembang	82
9	Pontianak	75
10	Bogor	70

Table 2. Top 10 Most Polluted Cities

Climate Crisis

The global climate crisis has emerged as one of the most profound threats to environmental stability, social well-being, and economic resilience.³¹ According to the United Nations Secretary-General, the planet has entered an era of “Global

²⁸ Misyi Gushthini and Dini Sri Istiningdias, “DKI Jakarta’s Regional Government Speech Act Analysis and Public Response to Air Pollution Issue on Instagram Platform,” *Journal of Pragmatics and Discourse Research* 4, no. 1 (2024): 1–10, <https://doi.org/10.51817/jpd.v4i1.696>.

²⁹ Ginanjar Syuhada et al., “Impacts of Air Pollution on Health and Cost of Illness in Jakarta, Indonesia,” *International Journal of Environmental Research and Public Health* 20, no. 4 (2023): 2916, <https://doi.org/10.3390/ijerph20042916>.

³⁰ IQAir Fondation, “Kualitas Udara di Indonesia,” Live Report, *IQAir*, October 31, 2025, <https://www.iqair.com/id/idonesia>.

³¹ Pramod K. Singh and Harpalsinh Chudasama, “Pathways for Climate Resilient Development: Human Well-Being within a Safe and Just Space in the 21st Century,” *Global Environmental Change* 68 (2021), <https://doi.org/10.1016/j.gloenvcha.2021.102277>.

Boiling,”³² as evidenced by data from the World Meteorological Organization (WMO) and the European Commission’s Copernicus Climate Change Service. July 2023 was officially recorded as the hottest month in human history, marking a critical point in the trajectory of global warming.³³

This crisis is primarily driven by the imbalance in the Earth’s energy system resulting from the sharp increase in greenhouse gas emissions chiefly carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O).³⁴ These gases intensify the greenhouse effect, disrupt the hydrological cycle, and induce long-term alterations in global climate patterns, amplifying the frequency and severity of extreme weather events.

John Bellamy Foster and His Thoughts

John Bellamy Foster is a distinguished scholar in the field of political ecology, widely recognized for his pioneering efforts in integrating Marxist theory with environmental analysis. Born on August 19, 1953, he currently serves as a Professor of Sociology at the University of Oregon and as the editor of *Monthly Review*, a leading journal addressing issues of political economy and social transformation. Foster’s early engagement with economics was shaped by his critique of capitalism, particularly its involvement in global economic crises, including the 1973 Chilean coup orchestrated by the United States.³⁵

His first major publication, *The Theory of Monopoly Capitalism* (1986), became a seminal reference for understanding the structural dynamics of modern capitalism.³⁶ By the late 1980s, Foster had increasingly turned his attention to ecological concerns, situating environmental degradation within the broader logic of capitalist accumulation.³⁷ In Marx’s *Ecology: Materialism and Nature* (2000), Foster revisits Karl Marx’s ecological insights, demonstrating their enduring relevance to contemporary critiques of capitalist production and environmental destruction.³⁸

³² Michelle Nichols, “UN Chief Warns ‘era of Global Boiling’ Has Arrived,” Online News, *Reuters*, July 27, 2023, <https://www.reuters.com/article/markets/un-chief-warns-era-of-global-boiling-has-arrived-idUSO8N38I00H/>

³³ WMA, “July 2023 Confirmed as Hottest Month on Record,” News, *World Meteorological Organization*, August 14, 2023, <https://wmo.int/media/news/july-2023-confirmed-hottest-month-record>

³⁴ Adi Subiyanto, “Diplomasi Iklim: Upaya Menyelamatkan Bumi dari Krisis Iklim ?,” *PENDIPA: Journal Of Science Education* 8, No. 1 (2024): 27–34, <https://doi.org/10.33369/pendipa.8.1.27-34>.

³⁵ Wikipedia, “John Bellamy Foster,” *Wikipedia: The Free Encyclopedia*, May 18, 2024, https://en.wikipedia.org/wiki/John_Bellamy_Foster.

³⁶ John Bellamy Foster, *The Theory of Monopoly Capitalism*, vol. 1 (Monthly Review Press, 2014).

³⁷ John Bellamy Foster, *Capitalism in the Anthropocene: Ecological Ruin or Ecological Revolution* (NYU Press, 2022).

³⁸ John Bellamy Foster, *Marx’s Ecology: Materialism and Nature* (NYU Press, 2000).

Foster further developed the concept of social metabolism as an analytical framework linking human production processes with natural ecosystems.³⁹ This framework illustrates how capitalist systems destabilize ecological balance through unsustainable resource extraction and excessive waste generation, exceeding the planet's regenerative capacity.⁴⁰ In response, Foster advocates for transformative approaches grounded in sustainability and ecological justice. Key Theories Developed by John Bellamy Foster include:

A. Metabolic Rift Theory

The metabolic rift theory represents one of John Bellamy Foster's most influential contributions to political ecology.⁴¹ Building upon Karl Marx's ecological insights, Foster elucidates how capitalism disrupts the metabolic interaction between humans and nature.⁴² Under capitalism, natural resources are relentlessly exploited to maximize short-term profit, often at the expense of ecological integrity and long-term sustainability. By detaching production processes from natural regenerative cycles, capitalism destabilizes vital ecological systems such as the carbon, nitrogen, and water cycles that sustain life on Earth.⁴³

This disruption manifests in phenomena such as industrial agriculture, where the excessive application of chemical fertilizers boosts immediate yields but gradually depletes soil fertility and contaminates groundwater.⁴⁴ Foster's metabolic rift theory thus provides a critical framework for understanding how capitalist production systematically alienates society from the natural environment, transforming ecological relations into mechanisms of exploitation and degradation.

B. Ecological Boundaries

Foster underscores the importance of ecological boundaries, referring to the Earth's finite capacity to absorb waste, regenerate resources, and sustain ecological balance. He argues that capitalism operates on a logic of perpetual and unlimited growth, inevitably leading to large-scale ecological exploitation that surpasses the planet's natural limits. According to Foster, such overexploitation destabilizes ecosystems and accelerates global crises such as climate change, biodiversity loss, and environmental degradation.⁴⁵

³⁹ John Bellamy Foster, *Ecology Against Capitalism* (NYU Press, 2002).

⁴⁰ Leigh Brownhill et al., *The Routledge Handbook on Ecosocialism*, 1st ed. (Routledge, 2021), <https://doi.org/10.4324/9780429341427>.

⁴¹ Heron, "Dialectical Materialism."

⁴² Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (Verso Book, 2025).

⁴³ Faruque As Sunny et al., "Influential Theories of Economics in Shaping Sustainable Development Concepts," *Administrative Sciences* 15, no. 1 (2024): 6, <https://doi.org/10.3390/admsci15010006>.

⁴⁴ Xiukang Wang, "Managing Land Carrying Capacity: Key to Achieving Sustainable Production Systems for Food Security," *Land* 11, no. 4 (2022): 484, <https://doi.org/10.3390/land11040484>.

⁴⁵ Foster et al., *The Ecological Rift*.

Furthermore, Foster critiques market-based and technocratic approaches to environmental management, contending that they fail to address the structural roots of ecological destruction.⁴⁶ These solutions, often framed as “green capitalism,” merely reproduce the exploitative logic of the capitalist system by commodifying nature rather than transforming the underlying relations of production.

C. Ecology as a Systemic Crisis

Foster underscores the importance of ecological boundaries, referring to the Earth’s finite capacity to absorb waste, regenerate resources, and sustain ecological balance. He argues that capitalism operates on a logic of perpetual and unlimited growth, inevitably leading to large-scale ecological exploitation that surpasses the planet’s natural limits. Furthermore, Foster critiques market-based and technocratic approaches to environmental management, contending that they fail to address the structural roots of ecological destruction.⁴⁷ These solutions, often framed as “green capitalism,” merely reproduce the exploitative logic of the capitalist system by commodifying nature rather than transforming the underlying relations of production. In Foster’s view, meaningful ecological recovery requires systemic transformation that redefines humanity’s relationship with nature within the limits of ecological sustainability and social justice.⁴⁸

D. Eco-socialism

As part of his broader critique of capitalism, Foster advocates for the development of eco-socialism a transformative socio-economic system aimed at addressing the structural contradictions of capitalism that underpin the global ecological crisis. He emphasizes that such systemic transformation is not merely desirable but imperative to prevent ecological collapse, which endangers both natural ecosystems and humanity’s capacity to sustain basic social and material needs.⁴⁹ Recent scholarship supports this perspective; for instance, Barkdull and Harris (2021) underscore the urgency of transitioning toward eco-socialist frameworks as a means of confronting escalating environmental challenges and ensuring the long-term sustainability of both human and ecological systems. Foster’s vision of eco-socialism is therefore rooted in the conviction that genuine environmental and social justice can only emerge through a fundamental reorientation of economic priorities and societal values shifting from profit-

⁴⁶ Moh. Nasrul Arief Setiawan Adam, Dewi Indrayani Hamin, and Hasim, “Perbandingan Sistem Ekonomi Sosialisme, Kapitalisme, dan Ekonomi Syariah: Sebuah Analisis Kritis terhadap Prinsip, Implementasi, dan Dampak Sosial,” *Jurnal Ilmiah Manajemen Dan Bisnis* 7, no. 2 (2024): 1011–24.

⁴⁷ Moh. Nasrul Arief Setiawan Adam, Dewi Indrayani Hamin, and Hasim, “Perbandingan Sistem Ekonomi Sosialisme, Kapitalisme, dan Ekonomi Syariah: Sebuah Analisis Kritis Terhadap Prinsip, Implementasi, dan Dampak Sosial,” *Jurnal Ilmiah Manajemen Dan Bisnis* 7, no. 2 (2024): 1011–24.

⁴⁸ John Bellamy Foster, “The Ecological Revolution: Making Peace with the Planet,” *Monthly Review Press*, February 2009.

⁴⁹ John Bellamy Foster, *Marx’s Ecology: Materialism and Nature* (NYU Press, 2000).

driven accumulation toward collective stewardship, equity, and ecological harmony.⁵⁰ Foster's vision of eco-socialism is therefore rooted in the conviction that genuine environmental and social justice can only emerge through a fundamental reorientation of economic priorities and societal values shifting from profit-driven accumulation toward collective stewardship, equity, and ecological harmony.

E. Capitalism's Growth Imperative

The growth imperative represents an intrinsic drive within the modern capitalist system, wherein perpetual economic expansion is regarded as both the principal objective and the ultimate indicator of progress. This notion is so deeply embedded in capitalist ideology that it is often perceived as a natural and unquestionable economic law.⁵¹ Foster (1999, 2000) identifies the growth imperative as a central feature of capitalism that compels relentless resource extraction and production, thereby disregarding ecological boundaries. Foster contends that this perpetual pursuit of growth constitutes the structural root of the ecological crisis, rendering genuine environmental sustainability unattainable under the capitalist paradigm.⁵² True ecological balance, therefore, requires transcending the capitalist logic of accumulation and embracing alternative systems grounded in ecological and social justice.

Islamic Values in Environmental Context

Islamic teachings underscore the preservation of nature as a fundamental principle governing the relationship between humans and the environment. This moral and theological responsibility is articulated in the Qur'an, *Surah al-Baqarah* (2:30), in which Allah declares: "Remember when your Lord said to the angels, Indeed, I will place a vicegerent on earth."⁵³ In this verse, humanity is designated as steward or vicegerent (*khalifah*), entrusted with the sacred duty of maintaining, protecting, and nurturing the natural world, while refraining from corruption and destruction.⁵⁴ This stewardship ensures the well-being of creation for both present and future generations, encompassing material and spiritual dimensions of life.

Islamic ethics concerning environmental sustainability revolve around four core principles: '*adl*, *mizān*, *amānah*, and *istidāmah*'. These values collectively provide a

⁵⁰ John Barkdull and Paul G. Harris, "Adapting to Climate Change: From Capitalism to Democratic Eco-Socialism," *Capitalism Nature Socialism* 35, no. 3 (2024): 11–29, <https://doi.org/10.1080/10455752.2024.2389053>.

⁵¹ Louison Cahen-Fourot, "Looking for Growth Imperatives under Capitalism: Money, Wage Labour, and Market Exchange," *Econstor*, no. 1 (2022), <https://hdl.handle.net/10419/264902>.

⁵² John Bellamy Foster and Fred Magdoff, "What Every Environmentalist Needs to Know About Capitalism: A Citizen's Guide to Capitalism and the Environment," *Monthly Review Press*, June 2011.

⁵³ Kementerian Agama RI, *Cordova: Al-Qur'an Dan Terjemahnya* (Syamil Quran, 2012).

⁵⁴ Najwa Huda Shaharil et al., "Spiritual Impact of Theocentric Outdoor Environmental Education on Affective Disposition among Malaysian Pre-Service Science Teachers," *International Journal of Religion* 5, no. 11 (2024): 6031–41, <https://doi.org/10.61707/w9k3z481>.

holistic moral framework that integrates ecological preservation with spiritual accountability, guiding humanity toward a harmonious coexistence with nature.⁵⁵ The following section elaborates on each of these principles and their implications for environmental conservation.

A. 'Adl: Justice

Human diversity should never be a basis for discrimination; rather, it should inspire equitable conduct that prevents division and discord. In Islamic thought, ('adl) signifies giving every being its due right and treating all entities human and non-human in accordance with what they deserve.⁵⁶ Allah commands in *Surah al-Nisa'* (4:58): "*And when you judge between people, to judge with justice.*"⁵⁷ Justice, in this sense, entails placing things in their proper context, avoiding oppression (*zalm*), respecting the rights of others, and acting in accordance with wisdom (*hikmah*) and the common good (*maslahah*).⁵⁸

Within an ecological framework, the principle of justice requires fairness not only toward present generations but also toward the natural world and future generations who depend on its sustainability.⁵⁹ Thus, environmental exploitation, pollution, and resource depletion constitute forms of injustice (*zalm*) that contradict divine guidance.

B. *Mizan*: Balance in Ecosystem

Islam teaches that Allah created the universe in perfect balance (*mizan*), as affirmed in the Qur'an, *Surah al-Rahmān* (55:9): "*And establish weight in justice and do not make deficient the balance.*"⁶⁰ These verses underscore a divine command for humanity to uphold equilibrium in all aspects of life, including the utilization of natural resources.⁶¹ Any form of excessive exploitation or wasteful behaviour constitutes a violation of this sacred principle.

The concept of *mizan* which literally means "balance" or "measure" serves as a foundational ecological ethic within Islamic thought. It encompasses not only the physical and biological equilibrium of ecosystems but also the moral

⁵⁵ Ais Mariya Ulva et al., "Pelaksanaan Konsep Islam Rahmatan Lil 'Alamin," *Al-Ajkar, Journal for Islamic Studies* 4, no. 2 (2021): 459–74.

⁵⁶ Affa Rangkuti, "Konsep Keadilan dalam Perspektif Islam," *Tazkiya: Jurnal Pendidikan Islam* 6, no. 1 (2017): 1–21.

⁵⁷ Kementerian Agama RI, *Cordova: Al-Qur'an Dan Terjemahnya*.

⁵⁸ Dokter Zafar Ali et al., "The Role of Islamic Values in Promoting Social Justice and Community Welfare," *Articles, International Research Journal of Management and Social Sciences* 5, no. 1 (2024): 575–85.

⁵⁹ Syaiful Muhyidin, "Konsep Keadilan dalam Alquran," *Al-Riwayah: Jurnal Kependidikan* 11, no. 1 (2019): 89–108.

⁶⁰ Kementerian Agama RI, *Cordova: Al-Qur'an Dan Terjemahnya*.

⁶¹ Latif Hussain Shah Kazmi, "Environmental Ethics in Islamic Perspective: Relevance and Application," *Philosophy and Progress*, September 19, 2024, 1–20, <https://doi.org/10.3329/pp.v73i1-2.75224>.

and ethical dimensions of human interaction with the environment.⁶² The Qur'an presents the cosmos as a finely tuned system in which every component performs a specific, interdependent function, contributing to the overall harmony of creation. As *khalifah* of the Earth, humans are divinely entrusted with the responsibility to preserve this balance.⁶³ Acts of environmental destruction such as illegal logging, pollution, or overconsumption disrupt the *mizān* and lead to ecological and social harm.⁶⁴ Upholding *mizān*, therefore, represents not only ecological sustainability but also a spiritual and moral obligation to maintain the divine order of creation.

C. *Amanah*: Responsible Use of Nature

Islam emphasizes that Natural resources are not objects of unrestricted exploitation but divine endowments that must be utilized prudently and sustainably.⁶⁵ The Qur'an explicitly warns against environmental corruption, as stated in *Surah al-A'rāf* (7:56): "*And do not cause corruption on the earth after it has been set in order.*"⁶⁶ As *khalifah* (stewards of the Earth), humans bear a moral and theological obligation to manage and use natural resources wisely.⁶⁷ This responsibility extends beyond immediate material benefits to encompass long-term ecological sustainability and intergenerational justice.⁶⁸ In this context, the principle of *amanah* embodies a comprehensive ecological ethic that integrates accountability, moderation, and foresight. It positions humanity not as owners of the Earth but as trustees accountable to the Creator for the well-being of all creation.⁶⁹ Responsible management, therefore, requires assessing the environmental consequences of human actions and ensuring that the integrity of natural systems is maintained for future generations.

D. *Istidāmah*: Sustainability in Natural Management

⁶² Anton et al., "Implementasi Ayat Alquran dalam Melestarikan Alam dan Menjaga Kehidupan," *JICN: Jurnal Intelek dan Cendikian Nusantara* 1, no. 1 (2024), <https://jicnusantara.com/index.php/jicn>.

⁶³ Syaira Azzahra and Siti Maysithoh, "Peran Muslim dalam Pelestarian Lingkungan: Ajaran dan Praktik," *At-Thullab: Jurnal Mahasiswa Studi Islam* 6, no. 1 (2024): 1568–79, <https://doi.org/10.20885/tullab.vol6.iss1.art8>.

⁶⁴ Zainab Amin, "Shari'ah and Climate Justice: Exploring Islamic Legal Foundations for Environmental Protection in Pakistan," *Muslim World Journal of Human Rights* (2025), <https://doi.org/doi:10.1515/mwjhr-2025-0014>.

⁶⁵ Asmawati Muhamad et al., "Preserving Human–Nature's Interaction for Sustainability: Quran and Sunnah Perspective," *Science and Engineering Ethics* 26, no. 2 (2020): 1053–66, <https://doi.org/10.1007/s11948-020-00192-7>.

⁶⁶ Kementerian Agama RI, *Cordova: Al-Qur'an Dan Terjemahnya*.

⁶⁷ Maulana Bagus Rahmat et al., "The Idea of Islamic Ecotheology in Responding to the Global Environmental Crisis: An Analysis of the Concepts of Khalifah, Mīzān, and Maṣlahah," *Indonesian Journal of Islamic Theology and Philosophy* 7, no. 1 (2025): 93–110.

⁶⁸ Abdur Rozaq and Moch Hibatullah Zain, "Transformative Islamic Spirituality as an Ethical Framework for Ecological Responsibility," *An-Nur International Journal of Islamic Thought* 2, no. 2 (2025): 48–65, <https://doi.org/10.62032/wjtw8116>.

⁶⁹ Rozaq and Zain, "Transformative Islamic Spirituality."

Istidāmah, derived from the Arabic term meaning “sustainability,” refers to the responsible management of natural resources with long-term ecological preservation as its guiding principle.⁷⁰ It emphasizes efficiency in resource utilization and awareness of the lasting consequences of consumption.⁷¹ This concept aligns with the Qur’anic prohibition against wastefulness, as stated in *Surah al-A’raf* (7:31): “*And do not be excessive. Indeed, Allah does not like those who commit excess.*”⁷²

In contemporary contexts, excessive consumerism and overexploitation of natural resources have become major contributors to environmental degradation.⁷³ The principle of *istidāmah* thus provides a theological and ethical framework for integrating Islamic teachings with sustainable practices.⁷⁴ Islam emphasizes that social justice is inseparable from environmental stewardship; the unjust exploitation of resources disproportionately harms vulnerable communities, thereby violating the Islamic principle of justice.⁷⁵

Harmonization of Foster's Political Ecology and Islamic Values in Addressing the Ecological Crisis in Indonesia

The alignment between John Bellamy Foster's theories and Islamic values offers a comprehensive approach to tackling the environmental crisis.

A. The Framework of Interaction

The methodological interaction that integrates John Bellamy Foster's structural analysis of political ecology with the spiritual and ethical dimensions of Islamic values seeks to provide a holistic solution to the ecological crisis in Indonesia.⁷⁶ This crisis is viewed not merely as a technical problem but as a consequence of social injustice, exploitative economic policies, and a lack of ecological awareness.

⁷⁰ Deva Jul Pratama, “Penanaman Padi Berkelanjutan terhadap Pendapatan Petani Perspektif Fiqih Lingkungan (Studi Pada Kampung Tanggulangin Kecamatan Punggur Kabupaten Lampung Tengah)” (Dissertation, IAIN Metro, 2025).

⁷¹ Raj Shah et al., “The Effects of Energy Efficiency and Resource Consumption on Environmental Sustainability,” *Lubricants* 9, no. 12 (2021): 117, <https://doi.org/10.3390/lubricants9120117>.

⁷² Kementerian Agama RI, *Cordova: Al-Qur'an Dan Terjemahnya*.

⁷³ Nan Chen and Muhammad Usman, “Energy Use, Energy Depletion, and Environmental Degradation: Exploitation of Natural Resources,” *Natural Resources Forum*, February 13, 2025, 1477-8947.12591, <https://doi.org/10.1111/1477-8947.12591>.

⁷⁴ Pratama, “Penanaman Padi Berkelanjutan terhadap Pendapatan Petani.”

⁷⁵ Gideon Basson et al., “Commentary to the Maastricht Principles on the Human Rights of Future Generations,” *Human Rights Quarterly* 47, no. 4 (2025): 754–1006, <https://doi.org/10.1353/hrq.2025.a972482>.

⁷⁶ Md. Abu Hasnat et al., “Capitalism in Modern Ignorance (Jahiliyah): Exploring Islamic Alternatives to Reshape Human Behaviour and Provide Solutions for the 21st Century,” *International Journal of Islamic and Middle Eastern Finance and Management* 18, no. 4 (2025): 975–91, <https://doi.org/10.1108/IMEFM-08-2024-0393>.

Capitalism is perceived as a driver of ecological crisis due to its logic of infinite growth, which disregards ecological limits and perpetuates widespread social inequality benefiting a small elite while marginalizing the majority.⁷⁷ Seyyed Hossein Nasr contends that the ecological crisis originates in the secular and anthropocentric worldview of modernity, which separates humanity from nature and reduces the latter to a mere instrument of human utility. This view aligns with Foster's argument that the logic of capitalism rooted in Western modernity is the principal driver of ecological exploitation.⁷⁸ He argues that nature constitutes a manifestation of God's Oneness; thus, violating nature equates to violating *tauhid* itself.⁷⁹ This principle offers the highest theological foundation for restoring *mizan* (cosmic balance) and functions as a structural antidote to the fragmentation and exploitative tendencies inherent in capitalist modernity.

The Islamic concept of '*adl*' requires placing all things in their rightful position and ensuring the rights of all beings, including nature and future generations. This principle calls for a fair distribution of resources and prohibits practices that contradict *hikmah* and collective welfare.⁸⁰ Instruments such as *zakat* and *waqf* are proposed as structural alternatives for creating a more just and sustainable economic system, in line with Foster's critique of capitalist exploitation.⁸¹ *Environmental zakat*, for instance, could be allocated to reforestation and ecosystem restoration, simultaneously addressing poverty and social inequality two conditions that exacerbate environmental degradation.

The massive exploitation of natural resources under capitalism has produced a metabolic rift between humanity and nature, disrupting essential natural cycles carbon, nitrogen, and water and thereby violating the ecological boundaries of the Earth.⁸² The principle of *mizan* teaches that God created the universe in perfect harmony, and humankind, as *khalifah*, is entrusted with maintaining that balance. This principle directly opposes excessive exploitation.⁸³ The Qur'anic prohibition of *israf* (wastefulness) serves as a sharp critique of the

⁷⁷ Tim Jackson, *Post Growth: Life after Capitalism* (John Wiley & Sons, 2021).

⁷⁸ Jefry Anggara and Mohammad Izdiyan Muttaqin, "Toward a Sustainable Future Integrating Hossein Nasr's Environmental Ethics into Islamic Environmentalism," *Proceedings of the International Conference on Strategic and Global Studies (ICSGS 2024)*, Atlantis Press International BV, 2025, 557–67, https://doi.org/10.2991/978-94-6463-646-8_33.

⁷⁹ Abdul Rashid Moten, *Varieties of Islamisation: Varying Contexts, Changing Strategies* (Cambridge Scholars Publishing, 2023).

⁸⁰ Juliyana Junaidi et al., "Revisiting Social Justice: Exploring the Qur'anic Paradigm in Addressing Contemporary Challenges," *Afkar* 25, no. 2 (2023): 153–92, <https://doi.org/10.22452/afkar.vol25no2.5>.

⁸¹ Ahmad Jafar et al., "Waqf: From Classical Charitable System to Modern Financial Tool," *International Journal of Ethics and Systems*, 2025, 1–24, <https://doi.org/10.1108/IJOES-10-2024-0354>.

⁸² John Bellamy Foster, *Capitalism in the Anthropocene: Ecological Ruin or Ecological Revolution* (NYU Press, 2022).

⁸³ Adha Shaleh and Md. Saidul Islam, "Averting the Existential Threat of the Planet: Islamic Environmental Ethics to Address the Contemporary Environmental Crisis," *Intellectual Discourse* 32, no. 1 (2024): 239–64.

consumerist excesses driven by modern capitalism, one of the main causes of ecological destruction.⁸⁴ In terms of policy, *mizan* requires that the state grant resource management licenses only to entities meeting sustainability standards and prevent monopolistic practices that threaten environmental balance.

Capitalism's focus on short-term profit often ignores long-term consequences and the preservation of resources for future generations, thereby deepening ecological rupture.⁸⁵ The concept of *istidāmah* in Islam demands resource management that prioritizes long-term ecological preservation.⁸⁶ Meanwhile, *amānah* positions nature as a divine trust that must be managed wisely to ensure the well-being of all living beings and future generations.⁸⁷

Özdemir emphasizes that the role of *khalifah* represents a profound moral and ecological trust (*amānah*), rather than a divine license for domination. As God's stewards, humans are mandated to act as just custodians and caretakers of creation, not as exploiters. This interpretation underscores the ethical misuse of the *amānah* principle in environmental governance, particularly relevant to Indonesia's context, where ecological degradation often stems from neglecting this moral responsibility.⁸⁸ He presents *jihād* as a moral and spiritual endeavour to safeguard the planet from destruction, thus transforming it into an ethical imperative for collective ecological action.⁸⁹

Encouraging the adoption of green technologies aligns with *istidāmah*, aiming to bridge the metabolic rift by reducing dependence on fossil fuels and promoting resource efficiency. Furthermore, education grounded in *qanā'ah* (contentment or sufficiency) functions as a structural counter-narrative to the culture of greed and consumerism characteristic of capitalist modernity.

B. Solutions to Address Indonesia's Ecological Crisis

The first recommendation is that stakeholders should implement the ecological justice-based policy. One approach that can be implemented is

⁸⁴ Reda Ibrahim Abdelgali, “A Conceptual and Textual Analysis of Israf (Excessiveness) in the Qur'an and the New Testament,” *Afkar* 26, no. 2 (2024): 413–50, <https://doi.org/10.22452/afkar.vol26no2.12>.

⁸⁵ Nikos Trantzas, “Could ‘Degrowth’ Have the Same Fate as ‘Sustainable Development’? A Discussion on Passive Revolution in the Anthropocene Age,” *Journal of Political Ecology* 28 (2021): 224–45, <https://doi.org/10.2458/JPE.2362>.

⁸⁶ Zulkifli et al., “Islamic Approaches to The Environmental Preservation: A Systemic Literature Review,” *Al-A’raf: Jurnal Pemikiran Islam Dan Filsafat* 20, no. 2 (2023): 176–208.

⁸⁷ Zohora Azmin Shompa et al., “Harmonizing Maqasid Al-Shari’ah with Sustainable Waste Management Practices: A Conceptual Framework for Principles and Implementation,” *International Journal of Islamic and Middle Eastern Finance and Management* 18, no. 1 (2024): 142–65, <https://doi.org/10.1108/IMEFM-02-2024-0061>.

⁸⁸ Ibrahim Özdemir, “Islam and Environmental Ethics, by Muhammad Yaseen Gada,” *Worldviews: Global Religions, Culture, and Ecology* (Leiden, The Netherlands) 28, no. 3 (2024): 303–6, <https://doi.org/10.1163/15685357-02803007>.

⁸⁹ Mansurni Abadi et al., “The Ecotheological Movement among the Muslim Youngers Generation in Indonesia: Case Studies Eco Deen and Green Cadre of Muhammadiyah,” *Asian People Journal (APJ)* 5, no. 2 (2022): 179–94, <https://doi.org/10.37231/apj.2022.5.2.473>.

through environmental zakat programs, which aim to finance forest restoration and ecosystem management. The concept of zakat and the prohibition of usury (*riba*) offer alternatives to creating a more just and sustainable economic system.⁹⁰

In this context, zakat can be allocated to programs that support environmental sustainability by funding projects aimed at improving environmental conditions, such as forest restoration and ecosystem management, while simultaneously enhancing community welfare.⁹¹ This perspective aligns with Foster's critique of capitalism, particularly its inherent tendencies toward exploitation and injustice. Foster argues that capitalism is the root cause of ecological crises, as it exploits nature and creates widespread social inequality.⁹² Foster emphasizes the importance of maintaining a metabolic balance between humans and nature, arguing that the disruption of this balance is a primary cause of ecological crises.⁹³ Meanwhile, Islamic teachings emphasize justice and prohibit actions that contravene wisdom and public benefit. Islam highlights the importance of justice and prohibits any form of injustice or actions that contradict the principles of wisdom and benefit.⁹⁴ The Qur'an emphasizes that humans must maintain balance in all aspects of life. Actions that exceed limits or cause destruction are seen as violations of the divine law of balance established by Allah.⁹⁵

The government can also take action by ensuring that resource management permits are granted only to entities that meet sustainability standards. This should be accompanied by rigorous supervision and consideration of these entities' contributions to Indonesian society. High licensing fees should not take precedence over effective supervision, nor should monopolistic practices be allowed to violate the principle of *mizan* (balance). Such an approach can reduce the rates of deforestation, pollution, and natural disasters. This aligns with the Islamic principle of *mizan* and Foster's call for maintaining harmony between humans and nature. Additionally, initiatives such as the Islamic Reporting Initiative (IRI) aim to establish reporting standards grounded in Islamic principles and values for sustainability and corporate social responsibility. IRI provides comprehensive metrics and methodologies for

⁹⁰ Odeh Al-Jayyousi et al., "Re-Thinking Sustainable Development within Islamic Worldviews: A Systematic Literature Review," *Sustainability* 14, no. 12 (2022): 7300, <https://doi.org/10.3390/su14127300>.

⁹¹ Khalifah Muhamad Ali et al., "Enhancing the Role of Zakat and Waqf on Social Forestry Program in Indonesia," *Economica: Jurnal Ekonomi Islam* 12, no. 1 (2021): 1–26, <https://doi.org/10.21580/economica.2021.12.1.6657>.

⁹² Foster, *Capitalism in the Anthropocene: Ecological Ruin or Ecological Revolution* (NYU Press, 2022).

⁹³ Foster et al., *The Ecological Rift*.

⁹⁴ Syaiful Muhyidin, "Konsep Keadilan dalam Alquran," *Al-Riwayah: Jurnal Kependidikan* 11, no. 1 (2019): 89–108.

⁹⁵ Amin, "Shari'ah and Climate Justice."

measuring and reporting corporate social responsibility with a focus on both short-term and long-term social and environmental investments.

The second recommendation is the necessity of promoting Education and Awareness on Islamic values within political ecology. Ecological education aims to build awareness of the importance of protecting the environment and reducing consumerist lifestyles.⁹⁶ By harmonizing curricula with political ecology and Islamic values, these institutions can cultivate a generation endowed with high environmental consciousness, noble character, and readiness to face future challenges. Through education, Indonesia can shape individuals who embody the role of *khalifah*, responsible for preserving nature.⁹⁷ Islamic education such as *tawhid* (the oneness of God), *khalifah*, and *amanah* instruct students to protect the environment as part of their worship and moral duty. Incorporating these principles into the curriculum can help students understand that environmental conservation is integral to their faith and ethical obligations. Based on the concept of *qanā'ah* plays a crucial role in shaping individuals' character and attitudes, enabling them to face life's challenges with wisdom. *Qanā'ah* teaches students to feel sufficient and content with the sustenance provided by Allah, fostering gratitude and simplicity.⁹⁸ This principle discourages excessive desires and greed, which can lead to the exploitation of natural resources. By instilling *qanā'ah*, Islamic education encourages moderation and responsible consumption, aligning with ecological principles that advocate for sustainable resource use.⁹⁹

This approach aligns with Foster's ecological limits theory, which posits that the Earth has finite resources, and unsustainable consumption can exceed these ecological boundaries, leading to environmental degradation.¹⁰⁰ The concept of *mizān* in Islam underscores the importance of maintaining equilibrium in all aspects of life, including the environment. By adhering to these principles, individuals can contribute to environmental sustainability and mitigate the ecological crisis. Furthermore, integrating Islamic values into environmental education can be achieved through various strategies. For instance, the development of an *eco-pesantren* (Islamic boarding school) program aims to enhance knowledge, compliance, and awareness among students regarding environmental conservation based on Islamic teachings. Such programs involve

⁹⁶ Hermania Bhoki and Thomas Are, *Merancang Pendidikan Berbasis Ekologi Di Sekolah Demi Pelestarian Ibu Bumi* (CV. Ruang Tentor, 2024).

⁹⁷ Muhammad Thohri, "Development of Environmentally Conscious Islamic Religious Education Curriculum at Elementary, Secondary, and Tertiary Education Levels," *Journal of Advances in Education and Philosophy* 8, no. 2 (2024): 76–87, <https://doi.org/10.36348/jaep.2024.v08i02.005>.

⁹⁸ Roza Susanti, "Nilai-Nilai Tasawuf dalam Konsep Pendidikan Islam Menurut Hamka Roza Susanti," *Journal of Education and Instruction (JOEAI)* 4, no. 1 (2021): 271–86, <https://doi.org/10.31539/joeai.v4i1.2394>.

⁹⁹ Mohammed Farid Ali, "Contentment (Qanā'ah) and Its Role in Curbing Social and Environmental Problems," *Islam and Civilisational Renewal* 5, no. 3 (2014): 430–46.

¹⁰⁰ Foster et al., *The Ecological Rift*.

activities like reforestation, waste management, and recycling, promoting an eco-friendly lifestyle within the educational environment.

The third, the government needs to establish collaboration with communities and promote Community Empowerment to effectively address the ecological crisis. One effective avenue for community involvement is through mosque-based initiatives. Mosques, serving as centers of worship and community gathering, possess significant potential to spearhead environmental awareness and action. Their central role in Muslim communities positions them as ideal hubs for promoting environmental stewardship.¹⁰¹ By engaging congregants and local residents, mosques can become focal points for education, socialization, and the practical application of sustainable practices.¹⁰²

Implementing mosque-based waste management programs can commence with the formation of dedicated working groups comprising mosque administrators, community leaders, and congregants. Activities may include waste segregation, composting, recycling, and community outreach to raise awareness about proper waste management. In addition to waste management, community involvement in reforestation efforts is crucial for achieving environmental sustainability. By harnessing the collective strength of local communities and the financial resources from productive alms (*sadaqah*) and endowments (*waqf*), significant environmental impacts can be realized. Furthermore, the concept of a mosque-driven circular economy has been proposed as a model for community empowerment. By optimizing mosque resources and community participation, this model aims to achieve a sustainable economy through practices that reduce waste and promote resource efficiency. Such collaborations not only address ecological crises but also educate local populations about environmental conditions, appropriate plant species, and sustainable forest management techniques. This participatory approach fosters a sense of ownership and responsibility, ensuring the longevity and success of reforestation programs.

Fourth, the government should implement policies that encourage the Indonesian public to adopt and utilize environmentally friendly (green) technologies. These technologies emphasize the use of renewable resources, energy efficiency, and improved waste management to reduce greenhouse gas emissions and pollution. Examples include renewable energy sources such as solar panels, wind energy, biogas, and waste recycling technologies, all aimed at decreasing reliance on fossil fuels and minimizing environmental contamination.¹⁰³

¹⁰¹ Mahmud Yunus, *Kamus Arab Indonesia* (Hidakarya Agung, 1990).

¹⁰² Yuyun Sunesti and Siti Zunariyah, "Religious-Based Environmental Movement: Mosque as a Center of Environmental Awareness Initiatives in Code River Yogyakarta," *E3S Web of Conferences* 595 (2024): 03006, <https://doi.org/10.1051/e3sconf/202459503006>.

¹⁰³ Ferdyson Ferdyson and Jaka Windarta, "Overview Pemanfaatan dan Perkembangan Sumber Daya Energi Surya Sebagai Energi Terbarukan di Indonesia," *Jurnal Energi Baru dan Terbarukan* 4, no. 1 (2023): 1–6, <https://doi.org/10.14710/jebt.2023.15714>.

Implementing green technologies aligns with the principle of *istidāmah*, which emphasizes environmental preservation and the prudent use of natural resources for the benefit of current and future generations.¹⁰⁴ This approach resonates with Foster's metabolic rift theory, which critiques how capitalist systems often prioritize short-term profits at the expense of ecological balance, leading to environmental degradation.¹⁰⁵ The convergence of digital technologies with green innovations offers new opportunities for enhancing efficiency and reducing environmental impacts across various sectors. By integrating green technologies, societies can work towards bridging this rift, promoting both economic development and ecological sustainability.

Fifth, strengthening global movements that promote ecological justice and sustainability through international cooperation and Islamic ethical frameworks. Indonesia holds great potential to initiate an international forum integrating political ecology and Islamic values as an alternative model for environmental management. Such a forum can promote interdisciplinary and interfaith dialogue, emphasizing the relationship between power, economy, and the environment. In the Islamic context, values such as the prohibition of excessive exploitation (*israf*) and the encouragement to maintain ecosystem balance can serve as a foundation for creating a sustainable development model.¹⁰⁶ A *waqf*-based approach to environmental conservation, for instance, could be integrated as a form of community-based resource management. Thus, Indonesia could pioneer a new paradigm that not only addresses environmental degradation but also upholds inclusive and just ethical values.

Thus, this research bridges a significant gap by explicitly integrating the structural analysis of John Bellamy Foster's political ecology with the ethical and spiritual dimensions of Islamic values. Synergy of Structural Analysis and Spiritual Ethics: This study combines Foster's materialist critique of capitalism particularly through the theory of the Metabolic Rift with Islamic theological principles, including '*adl*', responsibility *amānah*, *mizān*, and *istidāmah*. It argues that Western-dominated political ecology often neglects spiritual and ethical dimensions, which are in fact essential as transformative forces. Integrating Islamic values therefore provides unique and relevant insights to address this limitation. By referring to contemporary Islamic thinkers such as Seyyed Hossein Nasr (critique of anthropocentrism and the concept of *tauhid*) and Ibrahim Özdemir (eco-ethics and *khalfah*), this argument is strengthened and situated within the broader intellectual tradition of Islam, offering a deeper critique of the worldview that fuels capitalist exploitation.

This study also identifies four specific areas of practical implementation to address the ecological crisis in Indonesia: (1) Ecological justice-based policies,

¹⁰⁴ Pratama, "Penanaman Padi Berkelanjutan terhadap Pendapatan Petani."

¹⁰⁵ Foster et al., *The Ecological Rift*.

¹⁰⁶ Abdelgalil, "A Conceptual and Textual Analysis of Israf (Excessiveness)."

integrating the principles of *'adl* and *mizān* in resource management through environmental zakat and waqf to fund ecosystem restoration and support social forestry, as a just and sustainable alternative to the capitalist economic model. (2) Integration of ecological education, by incorporating political ecology and Islamic values into the curriculum of Islamic educational institutions, such as Eco-Pesantren, to cultivate a generation that embodies the spirit of *khalifah* and strong environmental awareness, supported by the value of *qanā'ah* to counter consumerism. (3) Community empowerment through faith-based initiatives, positioning the mosque as a center for environmental awareness and sustainable practices such as the Waste *Sadaqah* movement or mosque-based circular economy rooted in the values of *amānah* and communal solidarity. (4) Utilization of green technology, aligned with the principle of *istidāmah*, as a means of bridging the metabolic rift and promoting ecologically responsible economic development.

Furthermore, this research enriches global sustainability discourse by offering a non-secular perspective that is highly relevant to Muslim-majority societies. It affirms that the combination of structural analysis and spiritual-ethical guidance can establish an alternative paradigm to create a more just and sustainable socio-ecological order. Additionally, it highlights the crucial role of religion as a source of moral inspiration and a practical framework for social change within global environmental movements. Indonesia is positioned as a potential initiator of an international forum that integrates political ecology with Islamic values, pioneering a model that prioritizes inclusivity and justice in environmental governance.

Conclusion

This article demonstrates that integrating John Bellamy Foster's structural critique of capitalism with Islamic ethical principles provides a promising interdisciplinary framework for achieving ecological justice in Muslim-majority societies. The novelty of this study lies not only in juxtaposing two distinct traditions Marxist political ecology and Islamic theology but in systematically synthesizing them into a hybrid paradigm that interprets ecological degradation as both a structural and spiritual crisis. Unlike previous works that treat religion merely as moral rhetoric, this research positions Islamic ethics as an analytical category capable of enriching and correcting the limitations of secular political ecology. Methodologically, this study employs a qualitative library research approach that combines critical discourse analysis of Foster's metabolic rift with thematic interpretation of Qur'anic and prophetic ethics, supported by contemporary Muslim scholars such as Seyyed Hossein Nasr and Ibrahim Özdemir. This methodology establishes a dialogical framework that is both theoretically rigorous and contextually grounded in the Indonesian ecological reality. The article makes three key contributions: (1) it formulates a new theoretical model of ecological justice that unites structural transformation and spiritual responsibility; (2) it offers practical pathways through

environmental zakat, Eco-Pesantren, mosque-based community engagement, and green technology; and (3) it positions Indonesia as a potential laboratory for a globally relevant Islamic ecological paradigm. Future research may expand this model through comparative case studies or empirical policy implementation.

References

Abadi, Mansurni, Iman Permadi, Anastya Mezhova's, Rahmat Prasetyo, and Wulandari Simin. "The Ecotheological Movement among the Muslim Youngers Generation in Indonesia: Case Studies Eco Deen and Green Cadre of Muhammadiyah." *Asian People Journal (APJ)* 5, no. 2 (2022): 179–94. <https://doi.org/10.37231/apj.2022.5.2.473>.

Abdelgalil, Reda Ibrahim. "A Conceptual and Textual Analysis of Israf (Excessiveness) in the Qur'an and the New Testament." *Afkar* 26, no. 2 (2024): 413–50. <https://doi.org/10.22452/afkar.vol26no2.12>.

Adam, Moh. Nasrul Arief Setiawan, Dewi Indrayani Hamin, and Hasim. "Perbandingan Sistem Ekonomi Sosialisme, Kapitalisme, dan Ekonomi Syariah: Sebuah Analisis Kritis terhadap Prinsip, Implementasi, Dan Dampak Sosial." *Jurnal Ilmiah Manajemen Dan Bisnis* 7, no. 2 (2024): 1011–24.

Ali, Dokter Zafar, Ghulam Mustafa Anjum, Javed Iqbal, and Intekhab Ahmad. "The Role of Islamic Values in Promoting Social Justice and Community Welfare." Articles. *International Research Journal of Management and Social Sciences* 5, no. 1 (2024): 575–85.

Ali, Khalifah Muhamad, Salina Kassim, Miftahul Jannah, and Zulkarnain Muhammad Ali. "Enhancing The Role of Zakat and Waqf on Social Forestry Program in Indonesia." *Economica: Jurnal Ekonomi Islam* 12, no. 1 (2021): 1–26. <https://doi.org/10.21580/economica.2021.12.1.6657>.

Ali, Mohammed Farid. "Contentment (Qanā‘ah) and Its Role in Curbing Social and Environmental Problems." *Islam and Civilisational Renewal* 5, no. 3 (2014): 430–46.

Al-Jayyousi, Odeh, Evren Tok, Shereesa 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): 7300. <https://doi.org/10.3390/su14127300>.

Álvaro J. de Regil. "The Unbearable Unawareness of Our Ecological Existential Crisis." *Monthly Review*, 2023, 1–24.

Amin, Zainab. "Shari‘ah and Climate Justice: Exploring Islamic Legal Foundations for Environmental Protection in Pakistan." *Muslim World Journal of Human Rights*, ahead of print, October 17, 2025. <https://doi.org/doi:10.1515/mwjhr-2025-0014>.

Anggara, Jefry, and Mohammad Izdiyan Muttaqin. "Toward a Sustainable Future Integrating Hossein Nasr's Environmental Ethics into Islamic

Environmentalism.” *Proceedings of the International Conference on Strategic and Global Studies (ICSGS 2024)*, Atlantis Press International BV, 2025, 557–67. https://doi.org/10.2991/978-94-6463-646-8_33.

Anton, Elisa Harisah, Fani Nurjanah, Muhammad Fadhlani, and Erik Wilgian. “Implementasi Ayat Alquran dalam Melestariakan Alam dan Menjaga Kehidupan.” *JICN: Jurnal Intelek dan Cendikiawan Nusantara* 1, no. 1 (2024). <https://jicnusantara.com/index.php/jicn>.

Azzahra, Syaira, and Siti Maysithoh. “Peran Muslim dalam Pelestarian Lingkungan: Ajaran dan Praktik.” *At-Thullab: Jurnal Mahasiswa Studi Islam* 6, no. 1 (2024): 1568–79. <https://doi.org/10.20885/tullab.vol6.iss1.art8>.

Badan Pusat Statistik. *Deforestation Rate (Netto) in Indonesia, Inside and Outside Forest Area 2013–2022 (Ha/Year)*. Monthly. Jakarta, 2024.

Barkdull, John, and Paul G. Harris. “Adapting to Climate Change: From Capitalism to Democratic Eco-Socialism.” *Capitalism Nature Socialism* 35, no. 3 (2024): 11–29. <https://doi.org/10.1080/10455752.2024.2389053>.

Basson, Gideon, Sandra Liebenberg, Margaretha Wewerinke-Singh, et al. “Commentary to the Maastricht Principles on the Human Rights of Future Generations.” *Human Rights Quarterly* 47, no. 4 (2025): 754–1006. <https://doi.org/10.1353/hrq.2025.a972482>.

Basuki, Tyas Mutiara, Dewi Retna Indrawati, Hunggul Yudono Setio Hadi Nugroho, et al. “Water Pollution of Some Major Rivers in Indonesia: The Status, Institution, Regulation, and Recommendation for Its Mitigation.” *Polish Journal of Environmental Studies* 33, no. 4 (2024): 3515–30. <https://doi.org/10.15244/pjoes/178532>.

Bhoki, Hermania, and Thomas Are. *Merancang Pendidikan Berbasis Ekologi di Sekolah Demi Pelestarian Ibu Bumi*. CV. Ruang Tentor, 2024.

Brownhill, Leigh, Salvatore Engel-Di Mauro, Terran Giacomini, Ana Isla, Michael Löwy, and Terisa E. Turner. *The Routledge Handbook on Ecosocialism*. 1st ed. Routledge, 2021. <https://doi.org/10.4324/9780429341427>.

Cahen-Fouriot, Louison. “Looking for Growth Imperatives under Capitalism: Money, Wage Labour, and Market Exchange.” *Econstor*, no. 1 (July 2022). <https://hdl.handle.net/10419/264902>.

Chen, Nan, and Muhammad Usman. “Energy Use, Energy Depletion, and Environmental Degradation: Exploitation of Natural Resources.” *Natural Resources Forum*, February 13, 2025, 1477-8947.12591. <https://doi.org/10.1111/1477-8947.12591>.

Ferdyson, Ferdyson, and Jaka Windarta. “Overview Pemanfaatan dan Perkembangan Sumber Daya Energi Surya sebagai Energi Terbarukan di Indonesia.” *Jurnal Energi Baru dan Terbarukan* 4, no. 1 (2023): 1–6. <https://doi.org/10.14710/jebt.2023.15714>.

Foster, John Bellamy. *Capitalism in the Anthropocene: Ecological Ruin or Ecological Revolution*. NYU Press, 2022.

Foster, John Bellamy. *Capitalism in the Anthropocene: Ecological Ruin or Ecological Revolution*. NYU Press, 2022.

Foster, John Bellamy. *Ecology Against Capitalism*. NYU Press, 2002.

Foster, John Bellamy. "Ecology and the Future of History." *Monthly Review* 74, no. 122 (2022): 119–34. https://doi.org/10.14452/MR-074-03-2022-07_9.

Foster, John Bellamy. *Marx's Ecology: Materialism and Nature*. NYU Press, 2000.

Foster, John Bellamy. *Marx's Ecology: Materialism and Nature*. NYU Press, 2000.

Foster, John Bellamy. "The Ecological Revolution: Making Peace with the Planet." *Monthly Review Press*, February 2009.

Foster, John Bellamy. *The Theory of Monopoly Capitalism*. Vol. 1. Monthly Review Press, 2014.

Foster, John Bellamy, Brett Clark, and Richard York. *The Ecological Rift: Capitalism's War on the Earth*. NYU Press, 2011.

Foster, John Bellamy, and Fred Magdoff. "What Every Environmentalist Needs to Know About Capitalism: A Citizen's Guide to Capitalism and the Environment." *Monthly Review Press*, June 2011.

Gunawan, Hendra, Irma Yeny, Endang Karlina, et al. "Integrating Social Forestry and Biodiversity Conservation in Indonesia." *Forests* 13, no. 12 (2022): 2152. <https://doi.org/10.3390/f13122152>.

Gusthini, Misyi, and Dini Sri Istiningdias. "DKI Jakarta's Regional Government Speech Act Analysis and Public Response to Air Pollution Issue on Instagram Platform." *Journal of Pragmatics and Discourse Research* 4, no. 1 (2024): 1–10. <https://doi.org/10.51817/jpdr.v4i1.696>.

Hasnat, Md. Abu, Hissan Khandakar, Md. Azizur Rahman, SM. Nahidul Islam, and Khandakar Kamrul Hasan. "Capitalism in Modern Ignorance (Jahiliyah): Exploring Islamic Alternatives to Reshape Human Behaviour and Provide Solutions for the 21st Century." *International Journal of Islamic and Middle Eastern Finance and Management* 18, no. 4 (2025): 975–91. <https://doi.org/10.1108/IMEFM-08-2024-0393>.

Herliwati, Herliwati, Mijani Rahman, and Abdur Rahman. "Analisis Indeks Pencemaran Dan Daya Tampung Beban Pencemaran Sungai Jaing Kabupaten Tabalong Provinsi Kalimantan Selatan." *Fish Scientiae* 11, no. 1 (2021): 70–82. <https://doi.org/10.20527/fishscientiae.v11i1.173>.

Heron, Kai. "Dialectical Materialisms, Metabolic Rifts and the Climate Crisis: A Lacanian/Hegelian Perspective." *Science & Society: A Journal of Marxist Thought and Analysis* 85, no. 4 (2021): 501–26. <https://doi.org/10.1521/siso.2021.85.4.501>.

IPCC Sixth Assessment Report: The Physical Science Basis. The Intergovernmental Panel on Climate Change (IPCC). *Climate Change 2021: The Physical Science Basis*, 2021. <https://www.ipcc.ch/report/ar6/wg1/>.

IQAir Fondation. "Kualitas Udara Di Indonesia." Live Report. *IQAir*, October 31, 2025. <https://www.iqair.com/id/indonesia>.

Jackson, Tim. *Post Growth: Life after Capitalism*. John Wiley & Sons, 2021.

Jafar, Ahmad, Hafsa Ibrahim, and Rizwan Malik. "Waqf: From Classical Charitable System to Modern Financial Tool." *International Journal of Ethics and Systems*, 2025, 1–24. <https://doi.org/10.1108/IJOES-10-2024-0354>.

Junaidi, Juliyanah, Latifah Abdul Majid, and Mohd Arif Nazri. "Revisiting Social Justice: Exploring the Qur'anic Paradigm in Addressing Contemporary Challenges." *Afkar* 25, no. 2 (2023): 153–92. <https://doi.org/10.22452/afkar.vol25no2.5>.

Kementerian Agama RI. *Cordova: Al-Qur'an Dan Terjemahnya*. Syamil Quran, 2012.

Kementerian Lingkungan Hidup dan Kehutanan RI. "Hari Peduli Sampah Nasional: Atasi Sampah Plastik dengan Cara Produktif." *SIPSN*, 2024. <https://sipsn.menlhk.go.id/sipsn/>.

Monoson, Alexys, Evangeline Schott, Kerry Ard, et al. "Air Pollution and Respiratory Infections: The Past, Present, and Future." *Toxicological Sciences* 192, no. 1 (2023): 3–14. <https://doi.org/10.1093/toxsci/kfad003>.

Moore, Jason W. *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. Verso Book, 2025.

Moten, Abdul Rashid. *Varieties of Islamisation: Varying Contexts, Changing Strategies*. Cambridge Scholars Publishing, 2023.

Muhamad, Asmawati, Abdul Halim Syihab, and Abdul Halim Ibrahim. "Preserving Human–Nature's Interaction for Sustainability: Quran and Sunnah Perspective." *Science and Engineering Ethics* 26, no. 2 (2020): 1053–66. <https://doi.org/10.1007/s11948-020-00192-7>.

Muhyidin, Syaiful. "Konsep Keadilan dalam Alquran." *Al-Riwayah: Jurnal Kependidikan* 11, no. 1 (2019): 89–108.

Muhyidin, Syaiful. "Konsep Keadilan dalam Alquran." *Al-Riwayah: Jurnal Kependidikan* 11, no. 1 (2019): 89–108.

Mutolib, Abdul, Yonariza, and Ali Rahmat. "Faktor Penarik dan Pendorong Deforestasi Hutan di Kabupaten Dharmasraya, Sumatra Barat." *Journal of Tropical Upland Resources (J. Trop. Upland Res.)* 1, no. 1 (2019): 161–70. <https://doi.org/10.23960/jtur.vol1no1.2019.20>.

Nafas. *Kita Belum Merdeka Dari Polusi Udara*. Monthly. Nafas, 2023.

Naruetharadhol, Phaninee, Aisling ConwayLenihan, and Helen McGuirk. "Assessing the Role of Public Policy in Fostering Global Eco-Innovation." *Journal of Open Innovation: Technology, Market, and Complexity* 10, no. 2 (2024): 1–11. <https://doi.org/10.1016/j.joitmc.2024.100294>.

Nichols, Michelle. "UN Chief Warns 'era of Global Boiling' Has Arrived." Online News. *Reuters*, July 27, 2023. [https://www.reuters.com/article/markets/un-chief-warns-era-of-global-boiling-has-arrived-idUSO8N38I00H/#:~:text=July%2027%20\(Reuters\)%20%2D%20U.N.,Sign%20up%20here](https://www.reuters.com/article/markets/un-chief-warns-era-of-global-boiling-has-arrived-idUSO8N38I00H/#:~:text=July%2027%20(Reuters)%20%2D%20U.N.,Sign%20up%20here).

Nijman, Vincent, Thais Q. Morcatty, Kim Feddema, Marco Campera, and K. A. I. Nekaris. "Disentangling the Legal and Illegal Wildlife Trade—Insights from

Indonesian Wildlife Market Surveys.” *Animals* 12, no. 5 (2022): 628. <https://doi.org/10.3390/ani12050628>.

Nori, Abdul Wahed Jalal, and Homam Altabaa. “Reframing Sustainable Development through Islamic Futures Thinking: Ethical Foundations and Strategic Implications.” *Religions* 20 (2025): 54–69.

Ozdemir, Ibrahim. “Islam and Environmental Ethics, by Muhammad Yaseen Gada.” *Worldviews: Global Religions, Culture, and Ecology* (Leiden, The Netherlands) 28, no. 3 (2024): 303–6. <https://doi.org/10.1163/15685357-02803007>.

Pratama, Deva Jul. “Penanaman Padi Berkelanjutan terhadap Pendapatan Petani Perspektif Fiqih Lingkungan (Studi pada Kampung Tanggulangin Kecamatan Punggur Kabupaten Lampung Tengah).” Dissertation, IAIN Metro, 2025.

Rahma, Nadia, Catur Sugiyanto, and Akhmad Akbar Susamto. “Bridging Circular Economy and Islamic Economic Principles: Toward a Sustainable Economic Model.” *International Journal of Ethics and Systems*, October 21, 2025, 1–22. <https://doi.org/10.1108/IJOES-01-2025-0038>.

Rahman, Rizky Aulia, Benedict White, and Chunbo Ma. “The Effect of Growth, Deforestation, Forest Fires, and Volcanoes on Indonesian Regional Air Quality.” *Journal of Cleaner Production* 457 (June 2024): 142311. <https://doi.org/10.1016/j.jclepro.2024.142311>.

Rahmat, Maulana Bagus, Masruchin, and Fauzan. “The Idea of Islamic Ecotheology in Responding to the Global Environmental Crisis: An Analysis of the Concepts of Khalifah, Mīzān, and Maṣlaḥah.” *Indonesian Journal of Islamic Theology and Philosophy* 7, no. 1 (2025): 93–110.

Rangkuti, Affa. “Konsep Keadilan dalam Perspektif Islam.” *Tazkiya: Jurnal Pendidikan Islam* 6, no. 1 (2017): 1–21.

Rio, Alfajri. “Sungaiku Sayang, Sungaiku Malang: Ancaman Bagi Sungai-Sungai di Indonesia.” Information. *Greeneration Foundation*, March 27, 2021. <https://greeneration.org/publication/green-info/sungaiku-sayang-sungaiku-malang-ancaman-bagi-sungai-sungai-di-indonesia/>.

Rozaq, Abdur, and Moch Hibatullah Zain. “Transformative Islamic Spirituality as an Ethical Framework for Ecological Responsibility.” *An-Nur International Journal of Islamic Thought* 2, no. 2 (2025): 48–65. <https://doi.org/10.62032/wjtw8116>.

Sarath, Paremmal, Suma Arun Dev, Vb Sreekumar, and Modhumita Dasgupta. “Anthropogenic Threats and Habitat Degradation Challenge the Conservation of Palm Genetic Resources—an Appraisal of Current Status, Threats and Look-Ahead Strategies.” *Biodiversity and Conservation* 32, no. 2 (2023): 417–37. <https://doi.org/10.1007/s10531-022-02512-8>.

Saxena, Vivek. “Water Quality, Air Pollution, and Climate Change: Investigating the Environmental Impacts of Industrialization and Urbanization.” *Water, Air, & Soil Pollution* 236, no. 2 (2025): 73. <https://doi.org/10.1007/s11270-024-07702-4>.

Setiawan, Agus. "Keanekaragaman Hayati Indonesia: Masalah dan Upaya Konservasinya." *Indonesian Journal of Conservation* 11, no. 1 (2022): 13–21. <https://doi.org/10.15294/ijc.v11i1.34532>.

Shah Kazmi, Latif Hussain. "Environmental Ethics in Islamic Perspective: Relevance and Application." *Philosophy and Progress*, September 19, 2024, 1–20. <https://doi.org/10.3329/pp.v73i1-2.75224>.

Shah, Raj, Rui Chen, and Mathias Woydt. "The Effects of Energy Efficiency and Resource Consumption on Environmental Sustainability." *Lubricants* 9, no. 12 (2021): 117. <https://doi.org/10.3390/lubricants9120117>.

Shaharil, Najwa Huda, Sharifah Intan Sharina Syed-Abdullah, Fatiyah Mohd Fakhruddin, Norshariani Abd Rahman, and Mohd Aswad Ramlan. "Spiritual Impact of Theocentric Outdoor Environmental Education on Affective Disposition among Malaysian Pre-Service Science Teachers." *International Journal of Religion* 5, no. 11 (2024): 6031–41. <https://doi.org/10.61707/w9k3z481>.

Shaleh, Adha, and Md. Saidul Islam. "Averting the Existential Threat of the Planet: Islamic Environmental Ethics to Address the Contemporary Environmental Crisis." *Intellectual Discourse* 32, no. 1 (2024): 239–64.

Shompa, Zohora Azmin, Mohamed Aslam Akbar, and Hazwani Mohd Mohadis. "Harmonizing Maqasid Al-Shari'ah with Sustainable Waste Management Practices: A Conceptual Framework for Principles and Implementation." *International Journal of Islamic and Middle Eastern Finance and Management* 18, no. 1 (2024): 142–65. <https://doi.org/10.1108/IMEFM-02-2024-0061>.

Singh, Pramod K., and Harpalsinh Chudasama. "Pathways for Climate Resilient Development: Human Well-Being within a Safe and Just Space in the 21st Century." *Global Environmental Change* 68 (May 2021): 102277. <https://doi.org/10.1016/j.gloenvcha.2021.102277>.

Subiyanto, Adi. "Diplomasi Iklim: Upaya menyelamatkan bumi dari krisis iklim ?" *PENDIPA: Journal of Science Education* 8, no. 1 (2024): 27–34. <https://doi.org/10.33369/pendipa.8.1.27-34>.

Sugiarto, Ivan Richard, Ernita Dewy Hartono, Jason Marcellino Widjaja, Reisa Ariffa, and Jonathan Wijaya. "Penyelesaian Masalah (Studi Komparasi Pengaturan Polusi Udara Menurut Hukum Negara Indonesia dan Swiss)." *INNOVATIVE: Journal Of Social Science Research* 4, no. 2 (2024): 4284–4246.

Sunesti, Yuyun, and Siti Zunariyah. "Religious-Based Environmental Movement: Mosque as a Center of Environmental Awareness Initiatives in Code River Yogyakarta." *E3S Web of Conferences* 595 (2024): 03006. <https://doi.org/10.1051/e3sconf/202459503006>.

Sunny, Faruque As, Eila Jeronen, and Juping Lan. "Influential Theories of Economics in Shaping Sustainable Development Concepts." *Administrative Sciences* 15, no. 1 (2024): 6. <https://doi.org/10.3390/admsci15010006>.

Susanti, Roza. "Nilai-Nilai Tasawuf dalam Konsep Pendidikan Islam Menurut Hamka Roza Susanti." *Journal of Education and Instruction (JOEAI)* 4, no. 1 (2021): 271–86. <https://doi.org/10.31539/joeai.v4i1.2394>.

Syuhada, Ginanjar, Adhadian Akbar, Donny Hardiawan, et al. "Impacts of Air Pollution on Health and Cost of Illness in Jakarta, Indonesia." *International Journal of Environmental Research and Public Health* 20, no. 4 (2023): 2916. <https://doi.org/10.3390/ijerph20042916>.

Takeuchi, Yayoi, Hiroyuki Muraoka, Takehisa Yamakita, et al. "The Asia-Pacific Biodiversity Observation Network: 10-Year Achievements and New Strategies to 2030." *Ecological Research* 36, no. 2 (2021): 232–57. <https://doi.org/10.1111/1440-1703.12212>.

Tan, Yan-Ling, Jen-Eem Chen, Thian-Hee Yiew, and Muzafar Shah Habibullah. "Habitat Change and Biodiversity Loss in South and Southeast Asian Countries." *Environmental Science and Pollution Research* 29, no. 42 (2022): 63260–76. <https://doi.org/10.1007/s11356-022-20054-y>.

Thohri, Muhammad. "Development of Environmentally Conscious Islamic Religious Education Curriculum at Elementary, Secondary, and Tertiary Education Levels." *Journal of Advances in Education and Philosophy* 8, no. 2 (2024): 76–87. <https://doi.org/10.36348/jaep.2024.v08i02.005>.

Trantas, Nikos. "Could 'Degrowth' Have the Same Fate as 'Sustainable Development'? A Discussion on Passive Revolution in the Anthropocene Age." *Journal of Political Ecology* 28 (2021): 224–45. <https://doi.org/10.2458/JPE.2362>.

Ulva, Ais Mariya, Dhiya Ul Hikmah, Diva Istivarini, and Hasmy Nasanjy El M. "Pelaksanaan Konsep Islam Rahmatan Lil 'Alamin." *Al-Afkar, Journal for Islamic Studies* 4, no. 2 (2021): 459–74.

Wang, Xiukang. "Managing Land Carrying Capacity: Key to Achieving Sustainable Production Systems for Food Security." *Land* 11, no. 4 (2022): 484. <https://doi.org/10.3390/land11040484>.

Wikipedia. "John Bellamy Foster." *Wikipedia: The Free Encyclopedia*, May 18, 2024. https://en.wikipedia.org/wiki/John_Bellamy_Foster.

Wilkins, Dominic. "Where is Religion in Political Ecology?" *Progress in Human Geography* 45, no. 2 (2021): 276–97. <https://doi.org/10.1177/0309132520901772>.

WMA. "July 2023 Confirmed as Hottest Month on Record." News. *World Meteorological Organization*, August 14, 2023. <https://wmo.int/media/news/july-2023-confirmed-hottest-month-record>.

Writing Team. *The State of Indonesia's Forests 2024: Toward Sustainability of Forest Ecosystems in Indonesia*. 4 vols. Ministry of Environment and Forestry Republic of Indonesia, 2024.

Yilmaz, Isa. "Exploring the Foundations of Islamic Moral Economy: A Return to Substantive Morality." *International Journal of Ethics and Systems*, ahead of print, October 29, 2024. <https://doi.org/10.1108/IJOES-03-2024-0085>.

*Afif Kholidin; Khoirul Fathoni; Ali Musyafak; Saifudin Zubri;
Ida Nur Lailatul Kodriyah; Fathul Mufid*

Yunus, Mahmud. *Kamus Arab Indonesia*. Hidakarya Agung, 1990, 1990.

Zulkifli, Nuryaman, and Hafidhoh. “Islamic Approaches to the Environmental Preservation: A Systemic Literature Review.” *Al-A’raf: Jurnal Pemikiran Islam dan Filsafat* 20, no. 2 (2023): 176–208.