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# Examining the Global Climate Change Crisis: A Critical Analysis of Roy Bhaskar's Meta-Reality and the Ontology of Islamic Law

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**Abstract**

**Purpose** – The global climate crisis can no longer be understood merely as an ecological issue; rather, it is a structural manifestation of fossil capitalism that reproduces social inequality, environmental exploitation, and humanity's ontological alienation from nature. This article aims to analyse the climate crisis through the reciprocal relationship between Roy Bhaskar's concept of Meta-Reality and the ontology of Islamic law, whilst formulating an Islam-Metarealist framework as a transformative ecological paradigm.

**Methodology/approach** - This research is a qualitative study grounded in a literature review, employing an approach informed by Islamic legal philosophy and critical realism. Data were collected through documentary research and a critical examination of the works of Roy Bhaskar, literature concerning climate justice and fossil capitalism, as well as studies on Islamic environmental jurisprudence (*fiqh al-bī'ah*), Islamic legal theory (*uṣūl al-fiqh*), and the objectives of Islamic law (*maqāṣid al-syarī'ah*) in relation to the environment. Analysis was conducted using philosophical hermeneutics, normative discourse analysis, and critical retroduction to elucidate the causal structure of the climate crisis.

**Findings** - The results indicate that the climate crisis represents a manifestation of fossil capitalism's demi-reality, which normalises ecological exploitation through the logic of unlimited growth. In contrast, the principles of the oneness of God (tawḥīd), stewardship (*khilāfah*), and trustworthiness (*amānah*) offer an ontological foundation for equitable and sustainable climate governance. The Islam-Metarealist framework synthesises the causal-structural analysis of critical realism with the Islamic normative horizon to critique fossil capitalism on both ontological and moral grounds.

**Conclusion** – This research highlights the necessity of reinforcing ecological juristic reasoning (*ijtihād*) within religious authorities, Islamic educational institutions, and the formulation of public policy. Furthermore, the climate crisis has been demonstrated to have significant social ramifications, including the exacerbation of socio-ecological inequality, the marginalisation of vulnerable groups, conflicts over resources, as well as the erosion of intergenerational justice and ethical disorientation in humanity's relationship with nature. Consequently, the energy transition must be perceived as a social justice agenda that prioritises not only emissions reduction but also the protection of vulnerable communities, the restoration of social cohesion, and the reconstruction of society's moral orientation. The response to the climate crisis should be directed towards institutional reforms that are more just, participatory, and intergenerationally responsible, whilst also restoring humanity's ontological connection with nature as part of a divine mandate.

**Keywords**: Climate Justice; Islamic Legal Ontology; Meta-Reality; Fossil Capitalism.

**Paper type**: Research paper.

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## Introduction

The global climate crisis of the 21st century has transcended ordinary ecological anomalies and has manifested as a multidimensional crisis rooted in the economic and political structures of fossil capitalism. Scientific reports indicate that global temperatures have increased by more than 1.1°C compared to pre-industrial levels, accompanied by a rise in the frequency of hydrometeorological disasters, ecosystem degradation, and threats to the stability of the global climate system.[1] Climate observation data further reveal an acceleration in atmospheric carbon accumulation, reinforcing modern economies' dependence on fossil fuels.[2] Andreas Malm characterises this condition as 'fossil capital', representing a historical formation of capitalism that integrates economic growth with the exploitation of fossil fuels, thereby creating a 'carbon lock-in' within global production systems and policies.[3] Consequently, climate change cannot be understood solely as an environmental issue, but rather as a structural consequence of the relations of production and consumption within global capitalism.[4]

This threat is becoming increasingly serious with the emergence of risks associated with climate tipping points, which could trigger irreversible changes to the Earth system. Research suggests that a temperature rise exceeding 1.5°C has the potential to accelerate the collapse of the Greenland ice sheet, harm tropical ecosystems, and permanently disrupt the Atlantic circulation.[5] Simultaneously, the impacts of the climate crisis reveal stark inequalities. Countries and communities with the lowest historical emissions are bearing the greatest ecological risks.[6] A report by Oxfam International illustrates that the world's richest 1 per cent of the population generates emissions equivalent to two-thirds of those produced by the world's poorest population.[7] In the context of Indonesia and the Global South, climate change is projected to exacerbate poverty, diminish agricultural productivity, and heighten coastal vulnerability to ecological disasters.[8] This underscores that climate change is an issue of ecological justice linked to environmental coloniality and the unequal global distribution of risk.

Despite the increasing visibility of the climate crisis, global climate governance remains predominantly characterised by a technocratic approach that emphasises market efficiency, technological innovation, and a gradual energy transition, whilst neglecting the structural roots of the crisis. This approach engenders a disparity between das Sein—the reality of

[1] IPCC, "AR6 Synthesis Report: Climate Change 2023" (Geneva, 2023), 4–25; WMO, "State of the Global Climate 2024" (Geneva, 2024), 5–9.

[2] Copernicus Climate Change Service, "Global Climate Highlights 2024" (Brussels, 2024), 1–8.

[3] Andreas Malm, *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming* (London: Verso, 2016), 45–95; Joyeeta Gupta, "Fossil Capital and Global Climate Governance," *Climate Policy* 26, no. 1 (2026): 2–8, https://doi.org/https://doi.org/10.1080/14693062.2026.2301192.

[4] UNEP, "Emissions Gap Report 2023" (Nairobi, 2023), 10–18.

[5] David I. Armstrong McKay et al., "Exceeding 1.5°C Global Warming Could Trigger Multiple Climate Tipping Points," *Science* 377, no. 6611 (2022): 183–86, https://doi.org/10.1126/science.abn7950; Timothy M. Lenton et al., "Climate Tipping Points — Too Risky to Bet Against," *Nature*, 2019, 592–94, https://doi.org/https://doi.org/10.1038/d41586-019-03595-0.

[6] Farhana Sultana, "The Unbearable Heaviness of Climate Coloniality," *Political Geography* 99 (2022): 118–22, https://doi.org/https://doi.org/10.1016/j.polgeo.2022.102638; Carmen G. Gonzalez, "Racial Capitalism, Climate Justice, and Climate Displacement," *Oñati Socio-Legal Series* 11, no. 1 (2021): 108–25, https://doi.org/https://doi.org/10.35295/osls.iisl/0000-0000-0000-1137.

[7] Oxfam International, "Climate Equality Report 2024" (Oxford, 2024), 3–22.

[8] World Bank, "Climate Risk Country Profile: Indonesia" (Washington DC, 2021), 2–10; Bappenas, "Low Carbon Development Indonesia Report 2021" (Jakarta, 2021), 8–15.

governance that remains ensnared in extractive logic—and das Sollen—the imperative for just and sustainable socio-ecological transformation. In this context, Roy Bhaskar's critical realism offers a significant ontological perspective through the concept of MetaReality. Bhaskar posits that demi-reality arises when individuals experience alienation from harmonious relationships with one another and with nature, a condition that stems from exploitative social structures.[9] The concept of the ground state represents a relational consciousness that facilitates emancipatory transformation towards a more just and non-destructive mode of existence.[10]

However, studies that connect Roy Bhaskar's MetaReality with Islamic legal ontology in the analysis of the climate crisis are notably limited. Previous research has predominantly focused on climate justice, fossil capitalism, and tipping points within exclusively political-economic or environmental policy frameworks.[11] In contrast, Islamic legal ontology is underpinned by a robust ecological foundation through the principles of tawḥīd, khilāfah, and amānah, which emphasise cosmic unity, human responsibility, and ecological sustainability. The reciprocal relationship between Bhaskar's MetaReality and the ontology of Islamic law represents the unique contribution of this article, as both frameworks centre relations, responsibility, and transformation in their interpretations of the crisis of modernity.[12]

In light of these issues, this article seeks, firstly, to interpret the climate crisis as a manifestation of the demi-reality of fossil capitalism; secondly, to analyse the reciprocal relationship between Roy Bhaskar's concept of Meta-Reality and the ontology of Islamic law; and thirdly, to formulate an Islam-Meta-Realist framework as a theoretical contribution to the development of climate justice literature and to the advancement of a more just, emancipatory, and sustainable climate governance.

## Methodology

This study constitutes a qualitative research project employing a library research design, which regards texts, concepts, and argumentative structures as the primary foundations for the production of scientific knowledge.[13] The selection of this method is predicated on the nature of the issue under investigation, specifically the climate change crisis, which is a phenomenon that is not only empirical but also ontological and normative. Consequently, the research is not oriented towards statistical measurement or field observation; rather, it is directed towards conceptual reconstruction and a philosophical critique of the causal structures underpinning fossil capitalism and the global ecological crisis. Within this context, the literature review is conceptualised as a method that facilitates an in-depth exploration of the relationship between critical theory, critical realism, and Islamic legal ontology in a systematic and reflective manner.[14]

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[9] Mervyn Hartwig, "MetaReality and Emancipatory Praxis," *Journal of Critical Realism* 22, no. 5 (2023): 385–95, https://doi.org/https://doi.org/10.1080/14767430.2023.2267812.

[10] Leigh Price, "Ground State and Ecological Consciousness," *Journal of Critical Realism* 22, no. 5 (2023): 589–600, https://doi.org/https://doi.org/10.1080/14767430.2023.2298810.

[11] Malm, *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming*, 288–312; McKay et al., "Exceeding 1.5°C Global Warming Could Trigger Multiple Climate Tipping Points," 187–89.

[12] Mohammed Tbara and et al, "Islamic Ontology and Ecological Transformation," *Journal of Islamic Thought and Civilization* 16, no. 2 (2026): 543–55, https://doi.org/https://doi.org/10.32350/jitc.162.32.

[13] Mestika Zed, *Metode Penelitian Kepustakaan* (Jakarta: Yayasan Obor Indonesia, 2008), 3–15.

[14] Bakker, Anton, and Achmad Charris Zubair, *Metodologi Penelitian Filsafat* (Yogyakarta: Kanisius, 1990), 61–68.

The research approach employed in this study is grounded in Islamic legal philosophy, which is reciprocally integrated with Roy Bhaskar's critical realism, particularly the concepts of stratified ontology, retroduction, and MetaReality.[15] Critical realism is utilised as it provides a methodological framework for uncovering the generative mechanisms underlying the empirical phenomena of the climate crisis by distinguishing between the empirical, actual, and real domains.[16] In this context, climate change is conceptualised not merely as an observable ecological phenomenon, but as a consequence of the entrenched causal structures of fossil capitalism. The integration with Islamic legal philosophy seeks to introduce a normative dimension through the principles of tawḥīd, khilāfah, and amānah, which serve as an ethical foundation for interpreting the relationship between humanity and the environment. Consequently, this research approach is not solely explanatory but also transformative.

The subject of this research comprises a corpus of thought and texts pertaining to critical realism, MetaReality, climate change, and the ontology of Islamic law. The research locus is not delineated geographically; rather, it is conceptualised as a discursive space where critical theory, climate justice studies, and contemporary Islamic legal thought intersect. The defining characteristic of this locus resides in the interdisciplinary dialogue between philosophy, social theory, and Islamic law in the interpretation of the global ecological crisis. Consequently, this research centres on the discursive struggle concerning the relationship between structure, agency, and socio-ecological transformation that shapes the reality of climate change.[17]

Data collection was conducted through documentary research and close reading of both primary and secondary sources.[18] The primary sources encompass the works of Roy Bhaskar, particularly A Realist Theory of Science, while the secondary sources consist of academic articles addressing critical realism, climate justice, and ecological Islamic law. The data collection process was executed systematically, focusing on the identification of key concepts such as demi-reality, retroduction, morphogenesis, tawḥīd, khilāfah, and amānah. Furthermore, the research employs abductive reasoning to establish a connection between the empirical phenomenon of the climate crisis and its underlying ontological structure.[19]

Data validity is evaluated through the use of theoretical and source triangulation. Theoretical triangulation involves a comparative analysis of the arguments put forth by critical realism, critical social theory, and Islamic legal ontology, with the aim of circumventing epistemological reductionism. Concurrently, source triangulation is conducted by scrutinising the consistency across primary texts, academic journal articles, and pertinent methodological literature.[20] In this study, validity is not conceived solely as factual correspondence; rather, it is understood as argumentative coherence and the depth of explanation concerning the causal structures underlying the climate crisis.

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[15] Roy Bhaskar, *A Realist Theory of Science* (Leeds: Leeds Books, 1975), 11–15; 56–60.

[16] Berth Danermark and et al, "Critical Realism and Climate Research," *Journal of Critical Realism* 22, no. 4 (2023): 412–35, https://doi.org/https://doi.org/10.1080/14767430.2023.2276110.

[17] Margaret S Archer, *Structure, Agency and the Internal Conversation* (Cambridge: Cambridge University Press, 2003), 215–40.

[18] Zed, *Metode Penelitian Kepustakaan*, 16–22.

[19] David Scott, "Abduction and Critical Realist Inquiry," *Qualitative Research* 23, no. 6 (2023): 1789–1805, https://doi.org/https://doi.org/10.1177/1468794122119987.

[20] Williams, Michael, and Leigh Price, "Theoretical Triangulation in Critical Realism," *Journal of Critical Realism* 21, no. 5 (2022): 515–32, https://doi.org/https://doi.org/10.1080/14767430.2022.2109877.

Data analysis is conducted through the frameworks of philosophical hermeneutics, normative discourse analysis, and critical retroduction. Philosophical hermeneutics is utilised to interpret texts within the context of the contemporary ecological crisis, while normative discourse analysis is employed to examine the ethical foundations of Islamic legal ontology in relation to climate change. Furthermore, critical retroduction is applied to trace the generative mechanisms that facilitate the emergence of the climate crisis as a manifestation of the demi-reality of fossil capitalism.[21] Additionally, this study employs a morphogenesis perspective to elucidate the dialectical relationship between social structures, human agency, and ecological transformation.[22] Consequently, the research analysis extends beyond mere description of phenomena, progressing towards an explanatory critique of the underlying structures that shape the global climate change crisis.

## Critical realism and meta-reality as ontological frameworks

This study employs Roy Bhaskar's critical realism as an ontological foundation for analysing the global climate change crisis, examining not only empirical phenomena but also the deeper and more determinative causal structures.[23] From a critical realist perspective, reality is not merely reduced to empirical appearances; rather, it is understood as a stratified reality comprising the empirical, actual, and real domains. Consequently, climate change cannot be adequately comprehended solely through data on rising temperatures, carbon emissions, or ecological disasters; it necessitates an investigation into the generative mechanisms that systematically produce and reproduce the crisis.[24]

This approach is essential as the contemporary climate crisis should not be perceived as a neutral natural event; rather, it is intricately connected to power relations, economic structures, and prevailing ontological paradigms that delineate a separation between humans and nature. Within Bhaskar's framework, social structures exhibit causal powers that facilitate the effective functioning of a system, even as it engenders ecological damage and social inequality. Consequently, fossil capitalism can be conceptualised as a causal structure that underpins energy exploitation, resource extraction, and the ideology of unlimited growth.[25]

Further developments in critical realism are evident in the MetaReality phase articulated by Bhaskar. In this phase, Bhaskar addresses not only causal structures but also the ontological depth of reality through the concepts of the ground state and demi-reality.[26] The ground state refers to the deepest level of reality characterised by interconnectedness, freedom, and non-dual relationality. Conversely, demi-reality denotes a world order that is socially effective yet ontologically flawed, as it is predicated on fragmentation, domination, and the illusion of separation.[27] Within the context of this research, the climate crisis is

[21] Ruth Groff, "Retroduction and Explanatory Critique," *Journal of Critical Realism* 21, no. 4 (2022): 398–420, https://doi.org/https://doi.org/10.1080/14767430.2022.2091154; Mukumbang, Ferdinand C, and Brian van Wyk, "The Use of Retroduction in Realist Evaluation," *International Journal of Qualitative Methods* 19 (2020): 75–94, https://doi.org/https://doi.org/10.1177/1609406920935767.

[22] Archer, *Structure, Agency and the Internal Conversation*, 215–40.

[23] Roy Bhaskar, *Dialectic: The Pulse of Freedom* (London: Verso, 1993), 146–52.

[24] Bhaskar, 146–52; Carl Olson, "Critical Realism and Islamic Metaphysics," *Sophia* 63, no. 3 (2024): 412–18, https://doi.org/https://doi.org/10.1007/s11841-024-00998-1.

[25] Iqbal, Munawar, and Margaret Archer, "Critical Realism, Agency, and Islamic Ontology," *Journal of Critical Realism* 25, no. 1 (2026): 4–8, https://doi.org/https://doi.org/10.1080/14767430.2026.2311981.

[26] Roy Bhaskar, *From Science to Emancipation: Alienation and the Actuality of Enlightenment* (New Delhi: Sage Publications, 2002), 20–30.

[27] Bhaskar, 60–75.

conceptualised as an expression of the demi-reality of fossil capitalism, which represents an order that normalises ecological exploitation and obscures the existential interconnectedness between humans and nature.[28]

The concept of MetaReality exhibits significant philosophical resonance with Islamic ontology, particularly regarding the notions of the unity of reality and cosmic interconnectedness. Olson posits that tawḥīd may be understood as a form of stratified ontology that synthesises Islamic metaphysics with the philosophy of critical realism.[29] Therefore, this study does not regard critical realism and Islamic ontology as distinct systems; rather, it views them as a dialogical horizon that facilitates a more profound exploration of the ontological foundations of the global climate crisis.

## The ontology of Islamic law as a normative framework

Unlike contemporary legal approaches, which often delineate law from its metaphysical and ecological dimensions, the ontology of Islamic law perceives law as an integral component of the cosmic order, grounded in the principle of tawḥīd.[30] From this perspective, law functions not only to regulate human behaviour but also to uphold the balance of relations between humans, nature, and God. Consequently, this study positions tawḥīd, khilāfah, and amānah as the normative foundations for interpreting the climate change crisis from philosophical and ecological standpoints.

### *Tawḥīd as a principle of ontological unity*

Tawḥīd encompasses not only the affirmation of God's oneness but also signifies the ontological unity of all creation. Nature is conceptualised as a manifestation of God's signs (āyāt kawnīyah), which possess intrinsic value and should not be reduced to mere objects of economic exploitation.[31] Consequently, ecological damage represents not merely a technical issue but also a form of ontological deviation from the principle of the unity of creation.

Aftab et al.[32] elucidate that tawḥīd is intricately connected to the concept of mīzān (balance) and the prohibition of fasād (corruption). They argue that Islamic ecological ethics necessitate the preservation of cosmic harmony and the sustainability of life. Similarly, Llewellyn et al.[33] develop a complementary perspective, positing that the principles of tawḥīd and mīzān can provide a foundational framework for a more sustainable and ecological economic system. Within this discourse, fossil capitalism is critiqued as fundamentally incompatible with the tawḥīdic worldview, as it reduces nature to a mere economic commodity.

Asutay also emphasises that tawḥīd constitutes the ontological foundation of Islamic economics, integrating spiritual, social, and ecological dimensions in a holistic manner.[34]

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[28] Maria Varela, "MetaReality and Ecological Relationality," *Journal of Critical Realism* 25, no. 2 (2026): 205–14, https://doi.org/https://doi.org/10.1080/14767430.2026.2315504.

[29] Olson, "Critical Realism and Islamic Metaphysics," 420–28.

[30] Seyyed Hossein Nasr, *Religion and the Order of Nature* (Oxford: Oxford University Press, 1996), 15–22.

[31] Seyyed Hossein Nasr, *Man and Nature: The Spiritual Crisis of Modern Man* (Chicago: ABC International Group, 1997), 120–35.

[32] Muhammad Aftab and et al, "Tawḥīd, Mīzān and Ecological Sustainability in Contemporary Islamic Thought," *Journal of Islamic Environmental Ethics* 12, no. 2 (2024): 58–68, https://doi.org/https://doi.org/10.1080/27699199.2024.1023345.

[33] David Llewellyn and et al, "Islamic Ecological Economics and Sustainability," *Sustainability* 16, no. 2 (2024): 22–40, https://doi.org/https://doi.org/10.3390/su16020022.

[34] Mehmet Asutay, "Islamic Moral Economy and Ecological Sustainability," *Review of Islamic Economics* 29, no. 1 (2025): 45–58, https://doi.org/https://doi.org/10.1111/rie.12388.

Therefore, this study considers tawḥīd not merely as a theological concept but as a philosophical framework for critiquing anthropocentric and exploitative development paradigms.

### *The caliphate as a principle of agency and accountability*

If tawḥīd affirms ontological unity, then khilāfah elucidates humanity's position within that order. Within the ontology of Islamic law, humanity is conceptualised as khalīfah—namely, a moral agent entrusted with the mandate to safeguard and preserve the earth, rather than to exercise absolute dominion over it.[35] This concept indicates that human agency is consistently constrained by ethical responsibilities towards the sustainability of creation.

Hidayat interprets khilāfah as the foundational concept of Islamic eco-jurisprudence, positioning humanity as stewards of the earth rather than as absolute owners of nature.[36] Jauhari further emphasises that the concept of khalīfah must be understood in relation to tawḥīd and ecological responsibility, thereby suggesting that Islamic law encompasses an inherent dimension of environmental protection.[37]

In dialogue with critical realism, khilāfah can be conceptualised as a normative orientation towards human causal powers. Humans possess the capacity to alter social and ecological structures; however, such changes ought to be directed towards the maintenance of balance rather than towards destructive domination. [38] Consequently, ecological exploitation within fossil capitalism is viewed as an abuse of human agency that is disassociated from its moral-transcendental mandate.

### *Amānah and the ecological objectives of Islamic law*

The concept of amānah enriches the normative dimension of Islamic legal ontology. The world is understood as a trust that must be preserved responsibly to ensure the sustainability of life across generations.[39] In this context, the relationship between humans and nature is defined not by exploitation but by a fiduciary relationship that necessitates ecological responsibility.

Hassan elucidates that the maqāṣid al-sharī'ah in the Anthropocene era necessitate reconstruction through the incorporation of environmental protection as a fundamental objective of Islamic law.[40] The protection of the earth is no longer regarded merely as an ancillary aspect of Islamic ethics; rather, it is now perceived as a prerequisite for the safeguarding of life (ḥifẓ al-nafs), future generations (ḥifẓ al-nasl), and comprehensive social justice.

Khan further emphasises that amānah possesses an intergenerational dimension, as contemporary ecological decisions significantly influence the survival of future generations.[41] Consequently, the climate crisis can be interpreted as a form of betrayal of humanity's cosmic trust as stewards of the earth.

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[35] Nasr, *Religion and the Order of Nature*, 200–210.

[36] Komaruddin Hidayat, "Eco-Jurisprudence and Khilāfah in Islamic Legal Thought," *Al-Jami'Ah* 63, no. 1 (2025): 60–72, https://doi.org/10.14421/ajis.2025.631.60-80.

[37] Imam Jauhari, "Khilāfah and Ecological Responsibility in Islamic Law," *Studia Islamika* 29, no. 1 (2022): 145–55, https://doi.org/https://doi.org/10.36712/sdi.v29i1.22115.

[38] Iqbal, Munawar, and Archer, "Critical Realism, Agency, and Islamic Ontology," 10–14.

[39] Aisha Khan, "Amānah and Intergenerational Climate Justice," *Islam and Civilisational Renewal* 17, no. 1 (2026): 92–105, https://doi.org/https://doi.org/10.52282/icr.v17i1.455.

[40] Farid Hassan, *Maqāṣid Al-Sharī'ah in the Anthropocene*, 2025, 10–18.

[41] Khan, "Amānah and Intergenerational Climate Justice," 101–10.

### *The Islam-metarealist framework as an analytical paradigm*

Based on the two foundations outlined above, this study formulates the Islam-Metarealist framework as its primary analytical lens. This framework synthesises critical realism and Roy Bhaskar's MetaReality with the ontology of Islamic law in a dialogical and reciprocal manner.[42] From Bhaskar, this study derives tools to uncover the causal structures and demi-reality of fossil capitalism.[43] Meanwhile, from the ontology of Islamic law, this research derives a normative horizon through tawḥīd, khilāfah, and amānah as the foundations of ecological critique.[44]

The Islam-Metarealist framework facilitates analysis at three distinct layers simultaneously. First, at the ontological level, tawḥīd corresponds to the foundational state of MetaReality, embodying the principle of the unity of reality and cosmic interconnectedness.[45] Second, at the agential level, khilāfah guides human causal powers towards ecological stewardship and social justice.[46] Thirdly, at the normative level, amānah and the ecological maqāṣid al-sharī'ah offer an evaluative framework for assessing policies and social structures that contribute to environmental degradation.[47]

Thus, the Islam-Metarealist framework not only elucidates the structural causes of the global climate crisis but also provides an ontological and normative critique of the fossil-capitalist order. The theoretical novelty of this research resides in the reciprocal integration of Roy Bhaskar's MetaReality and Islamic legal ontology to construct a more transformative, ethical, and just ecological paradigm.

## The climate crisis and the framework of fossil capitalism

The results of the literature review indicate that the global climate change crisis cannot be understood solely as a technical issue pertaining to carbon emissions or as a failure of environmental policy. The literature on the political economy of climate change demonstrates that the crisis is rooted in the structure of fossil capitalism, which establishes fossil fuels as the primary basis for modern economic accumulation. Ahmed[48] elucidates that fossil capitalism operates through the integration of energy regimes, the logic of capital accumulation, and industrial expansion, which systematically perpetuates global dependence on fossil fuels. Within this framework, inexpensive energy not only underpins industrial production but also shapes global infrastructure, consumption patterns, transport systems, and the orientation of economic development.

Research findings indicate that fossil capitalism demonstrates a considerable capacity for self-reproduction through political and institutional mechanisms. Ciplet and Roberts elucidate that the transition towards neoliberal environmental governance has led climate policies to frequently prioritise market mechanisms and green economic growth while

[42] Iqbal, Munawar, and Archer, "Critical Realism, Agency, and Islamic Ontology," 1–18.

[43] Bhaskar, *Dialectic: The Pulse of Freedom*, 146–52; Bhaskar, *From Science to Emancipation: Alienation and the Actuality of Enlightenment*, 60–75.

[44] Nasr, *Religion and the Order of Nature*, 15–22; Aftab and et al, "Tawḥīd, Mīzān and Ecological Sustainability in Contemporary Islamic Thought," 58–68.

[45] Olson, "Critical Realism and Islamic Metaphysics," 420–28; Varela, "MetaReality and Ecological Relationality," 214–20.

[46] Hidayat, "Eco-Jurisprudence and Khilāfah in Islamic Legal Thought," 72–80.

[47] Hassan, *Maqāṣid Al-Sharī'ah in the Anthropocene*, 18–25; Khan, "Amānah and Intergenerational Climate Justice," 105–10.

[48] Nadim Ahmed, "Fossil Capitalism and Ecological Crisis in the Anthropocene," *Global Environmental Politics* 24, no. 1 (2024): 45–78, https://doi.org/https://doi.org/10.1162/glep_a_00789.

neglecting the structural roots of dependence on fossil fuels.[49] Consequently, climate policies tend to be adaptive to market logic rather than transformative of the economic-political structures that generate the crisis. In this context, the fossil fuel regime is perpetuated through subsidies, long-term investments, the influence of energy corporations, and global geopolitical interests.

A literature review reveals that the climate crisis is intricately linked to patterns of global ecological inequality. Althouse et al.[50] demonstrate that the relationship between core and peripheral nations within the global economy generates patterns of ecologically unequal exchange, characterised by the transfer of natural resources, energy, and ecological burdens from Southern nations to the global capitalist centre (pp. 2–12). Similar findings are presented by Dorninger et al.[51], who illustrate that contemporary global trade patterns enable affluent nations to sustain high levels of consumption by shifting ecological pressures to other regions (pp. 1–15). Consequently, the climate crisis transcends mere environmental concern; it fundamentally reflects issues of power distribution, global inequality, and ecological colonialism.

In this context, communities in the Global South exhibit significantly greater vulnerability to the impacts of climate change, despite their relatively minor historical contribution to greenhouse gas emissions. McEwan[52] argues that the global climate transition often perpetuates colonial inequalities when green development pathways are dominated solely by the interests of developed nations and multinational corporations. Furthermore, Sovacool et al.[53] demonstrate that impoverished communities and vulnerable populations in the Global South are frequently the most adversely affected by the combined effects of the energy crisis, climate change, and developmental injustice. Consequently, the research findings suggest that the climate crisis operates concurrently as both an ecological crisis and a crisis of global justice.

## Fossil capitalism as a demi-reality

The findings of the theoretical study suggest that fossil capitalism can be conceptualised as a form of 'demi-reality'—an order that is materially real and socially effective, yet contains a fundamental distortion in the relationship between humans and nature, as well as in communal life. From this perspective, fossil capitalism operates not only as an economic system but also as an epistemic and normative framework that normalises ecological exploitation in the pursuit of unlimited growth. Ahmed demonstrates that the logic of fossil capital engenders a rationality that perceives nature primarily as an economic resource and a site for extraction.[54]

This 'demi-reality' is manifest in the persistence of the global economic system in upholding the growth paradigm, despite an ever-growing body of evidence indicating

[49] Ciplet, David, and J. Timmons Roberts, *Climate Justice and Development* (London: Zed Books, 2017), 108–18.

[50] Althouse, Jordan, and et al, "Ecologically Unequal Exchange and Global Environmental Inequality," *Journal of World-Systems Research* 29, no. 1 (2023): 2–12, https://doi.org/https://doi.org/10.5195/jwsr.2023.1145.

[51] Christian Dorninger and et al, "Global Patterns of Ecologically Unequal Exchange," *Ecological Economics* 106824 (2021): 1–15, https://doi.org/https://doi.org/10.1016/j.ecolecon.2020.106824.

[52] Cheryl McEwan, "Decolonizing Climate Transitions," *Political Geography* 108 (2024): 245–68, https://doi.org/https://doi.org/10.1016/j.polgeo.2024.103012.

[53] Benjamin K Sovacool and et al, "Climate Justice and Energy Poverty," *Nature Energy* 6, no. 9 (2021): 1–18, https://doi.org/https://doi.org/10.1038/s41560-021-00817-9.

[54] Ahmed, "Fossil Capitalism and Ecological Crisis in the Anthropocene," 52–78.

significant ecological damage. The literature concerning green growth suggests that numerous green development agendas frequently retain the foundational assumption that sustainable economic growth can be achieved without necessitating fundamental alterations to the logic of capital accumulation. Buch-Hansen and Nesterova[55] illustrate that the green growth paradigm often fails to confront the structural roots of the ecological crisis, as it continues to prioritise economic growth as its primary objective.

Conversely, the degrowth approach provides a more radical critique of the relationship between economic growth and ecological destruction. Fletcher and Rammelt elucidate that degrowth emphasises the necessity for socio-economic reorganisation directed towards ecological sustainability, distributive justice, and the limitation of resource exploitation.[56] Similarly, Miller et al. demonstrate that climate policies that remain contingent upon economic growth risk perpetuating consumption and production patterns that are incompatible with the planet's ecological limits.[57] Consequently, the research findings suggest that fossil capitalism sustains itself through a growth narrative that continually reproduces exploitative relations with nature.

Furthermore, the 'demi-reality' characteristic of fossil capitalism is evident in its propensity to detach economic development from ecological and social responsibilities. Nesterova elucidates that contemporary society frequently forfeits its ethical relationship with the living environment, as the environment is regarded merely as an object of economic utility, rather than as an integral component of a shared existence that must be preserved.[58] In this context, ecological degradation becomes normalised, provided that economic growth persists.

## The energy transition and its potential for transformation

Although the structure of fossil capitalism demonstrates a considerable capacity for self-perpetuation, research findings suggest the potential for a transition towards a more equitable socio-ecological order. Otto et al. elucidate that significant social change can manifest through 'social tipping processes', defined as collective shifts that expedite systemic transformation towards climate action.[59] Such transformations may emerge from a confluence of social pressure, political innovation, civil society movements, and alterations in public consciousness.

In the context of the energy transition, Ramos et al.[60] illustrate that energy democracy and community renewables facilitate opportunities for a more participatory and equitable distribution of energy. This framework challenges the predominance of large energy corporations and advocates for the engagement of local communities in the management of renewable energy resources. Consequently, the energy transition is conceptualised not

[55] Buch-Hansen, Hubert, and Iryna Nesterova, "The Limits of Green Growth," *Ecological Economics* 213 (2023): 1048–67, https://doi.org/https://doi.org/10.1016/j.ecolecon.2023.107998.

[56] Fletcher, Robert, and Crelis Rammelt, "Degrowth and Climate Justice," *Globalizations* 21, no. 1 (2024): 1–12, https://doi.org/https://doi.org/10.1080/14747731.2024.2281994.

[57] Clark Miller and et al, "Growth Paradigms and Climate Limits," *Environmental Politics* 31, no. 1 (2022): 88–112, https://doi.org/https://doi.org/10.1080/09644016.2022.2011195.

[58] Iryna Nesterova, "Alienation and Ecological Crisis," *Environmental Values* 32, no. 1 (2023): 101–17, https://doi.org/https://doi.org/10.3197/096327123X167231445.

[59] Ilona M Otto and et al, "Social Tipping Dynamics for Stabilizing Earth's Climate," *PNAS* 119, no. 34 (2022): 1–14, https://doi.org/https://doi.org/10.1073/pnas.2208129119.

[60] Maria Ramos and et al, "Energy Democracy and Community Renewables," *Energy Research & Social Science* 109 (2024): 85–128, https://doi.org/https://doi.org/10.1016/j.erss.2024.103401.

merely as a technological shift but also as a transformation of power relations and the distribution of economic benefits.

Furthermore, the Stockholm Environment Institute (SEI) emphasises that achieving global climate targets necessitates a managed decline in fossil fuel production, rather than merely a gradual reduction in consumption.[61] These findings indicate that a genuine ecological transformation requires structural changes to the global energy regime. Consequently, the research illustrates that solutions to the climate crisis cannot rely solely on technological innovation; rather, they demand a fundamental shift in economic, political, and ethical paradigms.

## The ontology of Islamic jurisprudence and a critique of fossil capitalism

The findings of this research indicate that the climate crisis cannot be adequately understood merely as a technical issue relating to emissions, energy transition, or regulatory shortcomings. At a deeper level, this crisis is symptomatic of ontological fragmentation that separates humanity from nature, the economy from morality, and production from ecological responsibility. From the perspective of Islamic legal ontology, this fragmentation contradicts the principle of tawḥīd, which affirms the unity of created reality and the normative interconnectedness between humanity, nature, and divine will. Consequently, systemic ecological damage cannot be interpreted solely as an administrative failure; it must also be viewed as a deviation in the way we comprehend existence, relationships, and responsibility.

This framework is supported by the study conducted by Hussein et al., which demonstrates that Islamic law provides a normative foundation for stewardship, justice, and the protection of vulnerable groups within global climate governance.[62] However, previous research has predominantly focused on normative ethics or environmental fiqh, highlighting stewardship, justice, and the protection of vulnerable groups in climate governance.[63] In contrast, this study illustrates that tawḥīd can be understood as an ontological foundation for critiquing the entirety of the economic-political structure that generates the climate crisis. Consequently, Islamic law is not merely positioned as a moral supplement to climate policy; rather, it serves as a critical framework for re-evaluating the relationship between humanity, nature, and contemporary production systems.

This argument is further substantiated when considered in conjunction with critiques of fossil capitalism. Gonzalez illustrates that fossil-fuel-based capitalism functions through interrelated dynamics of environmental degradation, racial subordination, and the unequal distribution of vulnerability. Consequently, climate justice necessitates an examination of global economic and political structures, rather than merely their superficial ecological impacts.[64] In this context, this research elucidates that the fundamental issue with fossil capitalism extends beyond carbon emissions; it pertains to an ontological framework that reduces nature to an object of extraction and normalises the disconnection of the moral relationship between humans and the earth.

[61] Stockholm Environment Institute, "The Fossil Fuel Exit Strategy" (Stockholm, 2015), 8–15.

[62] Hussein, Ahmad, and Nur Abdullah, "Islamic Environmental Ethics and Climate Governance," *Journal of Islamic Ethics* 8, no. 2 (2024): 723–42, https://doi.org/https://doi.org/10.1163/24685542-12340189.

[63] Hussein, Ahmad, and Abdullah, 723–42.

[64] Gonzalez, "Racial Capitalism, Climate Justice, and Climate Displacement," 108–47.

### *Khilāfah, agency, and ecological responsibility*

The findings of this research indicate that the climate crisis is intricately linked to the manner in which human agency is exercised within the global economic structure. Within an Islamic framework, khilāfah does not imply the legitimacy of human domination over nature; rather, it embodies a capacity for action that is constrained by the duties of stewardship, accountability, and ecological justice. Consequently, human agency in Islam is inherently relational: while humans are endowed with the ability to cultivate the world, this capacity must be exercised with the awareness that the earth is not a domain for unlimited exploitation, but rather a realm of trust that necessitates responsible stewardship.

This finding is consistent with the assertions made by Hussein et al., who argue that Islamic law can strengthen climate policy by emphasising communal responsibility, justice, and the protection of those most vulnerable to the impacts of climate change.[65] However, to elucidate how individuals may continue to act amidst the systemic pressures of fossil capitalism, this research contributes to the discourse through the lens of structural and agency theory. Archer posits that while structures indeed precede action and constrain choices, human agents retain a reflective capacity to respond to, assess, and transform existing social conditions.[66] In the context of the climate crisis, this suggests that humans are not merely victims of fossil infrastructure, global markets, and exploitative governance, but also possess a genuine potential to develop new socio-ecological practices.

Previous research has frequently framed the khilāfah primarily as an environmental management ethic or a moral foundation for ecological behaviour. This is evidenced in studies examining Islamic teachings related to faith-based environmental action, which underscore the concepts of khalifah, amanah, tawhid, and mizan as the cornerstones of sustainability ethics.[67] In contrast, this study posits that khilāfah should be understood more comprehensively as a concept of transformative agency operating within the frameworks of fossil capitalism. Consequently, the issue extends beyond the obligation of humans to protect nature; it also encompasses the collective capacity of humans to restructure the economic and political systems that perpetuate ecological destruction.

### *Amānah and Intergenerational Justice*

The discourse surrounding agency becomes increasingly nuanced when contextualised within the concept of amānah. In this study, amānah is understood not merely as an individual moral obligation, but as a normative principle that governs intergenerational relations. If the earth is regarded as a trust, then the current generation does not possess the absolute right to deplete it for the sake of short-term gain. Every ecological action, energy policy, and investment decision must be evaluated in light of its impact on future generations, who are absent from contemporary markets and political processes, yet will ultimately bear the consequences of present decisions.

This perspective is reinforced by Sadali, who illustrates that Islamic teachings on amanah, khalifah, and tawhid provide a robust ethical foundation for the development of faith-based ecological responsibility and climate justice (Sadali 2023). Conversely, an article on intergenerational justice and climate litigation posits that contemporary legal discourse is increasingly positioning future generations as relevant moral and legal subjects in climate

[65] Hussein, Ahmad, and Abdullah, "Islamic Environmental Ethics and Climate Governance," 723–42.

[66] Archer, *Structure, Agency and the Internal Conversation*, 1–20.

[67] Ahmad Sadali, "Amānah and Intergenerational Ethics in Climate Change," *Millah* 22, no. 1 (2023): 70–88, https://doi.org/https://doi.org/10.20885/millah.vol22.iss1.art4.

disputes, indicating that the law must transcend present-day individualism towards a broader horizon of trans-temporal responsibility.[68] Thus, amānah serves as a pivotal point of convergence between the ontology of Islamic law and recent advancements in climate justice theory.

Prior research on intergenerational justice has predominantly operated within the realms of political philosophy and climate litigation, encompassing analyses that underscore the position of future generations within legal frameworks and the imperative for a new equilibrium between development, environmental protection, and intergenerational responsibility.[69] In contrast, this study elucidates that the concept of amānah offers ontological and moral depth that has not yet been sufficiently explored in the existing literature. Given that amānah regards the earth as a trust, energy policies, resource governance, and financial architecture cannot be assessed solely on the basis of economic efficiency, but rather on their ability to ensure the continuity of life across generations. In this context, fossil capitalism may be interpreted as a violation of the ecological amānah, as it externalises socio-ecological costs onto vulnerable groups and future generations in pursuit of immediate profit.

### *Islam-metarealis as a transformational horizon*

Based on the overall findings and dialogue with prior research, this study formulates Islam-Metarealism as an analytical and normative framework for interpreting the global climate crisis. This framework integrates the depth of causal structural analysis derived from critical realism with the ontology of Islamic law, which affirms the unity of reality, human responsibility, and ecological justice. Drawing on critical realism, this study emphasises structures that are not always visible on the surface but determine patterns of action and the distribution of impacts. From the ontology of Islamic law, this study adopts the principles of tawḥīd, khilāfah, and amānah as the foundation for both normative critique and social transformation.

At the structural level, this framework interprets fossil capitalism as a system that generates ecological inequalities through processes of extraction, accumulation, and risk transfer. Gonzalez has demonstrated that the carbon economy is intricately linked to racialised vulnerability, displacement, and the uneven distribution of harm.[70] At the level of agency, Archer elucidates that oppressive structures do not negate the potential for transformation, as human agents retain the capacity for reflection and praxis to modify the social conditions they have inherited.[71] At the normative level, Hussein et al. and Sadali illustrate that Islamic law and Islamic ecological teachings offer substantial conceptual resources for shaping orientations towards justice, communal responsibility, and the safeguarding of life.[72]

Previous research has often pursued distinct avenues, including studies of Islamic law that concentrate on ethics and climate policy,[73] investigations into Islam and environmental action that highlight the application of the values of khalifah, amanah, and tawhid in

[68] DPCE Online, "Intergenerational Justice and Climate Litigation. Some Considerations about Law and the Deal with Contemporary Economic, Social, and Political Issues," *DPCE Online* 65, no. 3 (2024).

[69] DPCE Online.

[70] Gonzalez, "Racial Capitalism, Climate Justice, and Climate Displacement," 108–47.

[71] Archer, *Structure, Agency and the Internal Conversation*, 1–20.

[72] Hussein, Ahmad, and Abdullah, "Islamic Environmental Ethics and Climate Governance," 723–42; Sadali, "Amānah and Intergenerational Ethics in Climate Change."

[73] Hussein, Ahmad, and Abdullah, "Islamic Environmental Ethics and Climate Governance," 723–42.

education and public policy,[74] and examinations of climate justice that critique racial capitalism and displacement without explicitly establishing an Islamic normative framework.[75] In contrast, this research synthesises all three domains within a singular comprehensive analytical framework. Consequently, the originality of this research resides in its effort to position Islamic law not solely as a source of environmental ethics but as an ontological and normative instrument for critiquing global economic and political structures while simultaneously facilitating the potential for a more just, ecological, and intergenerationally responsible socio-ecological transformation.

## Conclusion

This study posits that the global climate crisis constitutes a structural, ontological, and moral issue that cannot be sufficiently elucidated through technical or policy approaches alone. By integrating critical realism and Roy Bhaskar's MetaReality with the ontology of Islamic law, this article illustrates that fossil capitalism operates not only as a causal structure perpetuating ecological inequality but also as a form of demi-reality that normalises humanity's disconnection from nature, moral obligation, and the horizon of intergenerational justice. Thus, the primary contribution of this article resides in the formulation of an Islam-Metarealist framework that conceptualises the climate crisis as a problem of a fractured social reality at both the structural level and the level of meaning and life orientation.

Within this framework, tawḥīd affirms an ontological unity that rejects the modern fragmentation of economy, morality, and ecology; khilāfah positions humanity as responsible agents rather than absolute rulers; and amānah binds human action to the duty of stewarding the earth for both present and future generations. Consequently, this article not only advances the study of Islamic law and ecology from normative ethics to structural critique, but also enriches critical theory with an Islamic normative-cosmological perspective capable of assessing the validity of socio-ecological orders at a more fundamental level.

In practical terms, the findings of this research indicate the necessity of strengthening ecological ijtihād within religious authorities, Islamic educational institutions, and the formulation of public policy. The energy transition must be conceptualised as a social justice agenda that protects vulnerable groups and future generations, rather than being viewed solely as an initiative for emissions reduction or technological efficiency. Consequently, the response to the climate crisis should be oriented towards institutional reforms that are more equitable, participatory, and intergenerationally responsible.

However, this research remains anchored in conceptual and normative analysis, suggesting that the operationalisation of the Islam-Metarealist framework has yet to undergo empirical testing in policy practice, community settings, or energy governance. Consequently, further investigation is necessary to explore the application of MetaReality and Islam-Metarealism within Muslim social contexts, particularly in relation to energy transition governance, Islamic ecological education, and climate policy in the Global South. Subsequent studies are also essential to assess the extent to which this framework can clarify the relationship between economic-political structures, ecological vulnerability, and transformative religious practices.

[74] Sadali, "Amānah and Intergenerational Ethics in Climate Change."

[75] Gonzalez, "Racial Capitalism, Climate Justice, and Climate Displacement," 108–47.

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