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Urbanization in Indonesia's New Capital City (IKN) and the Ecological Crisis: A Thematic Qur'anic Interpretation of Sustainable Development Ethics

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Abstract

Purpose – The development of Indonesia's new capital city, Ibu Kota Nusantara (IKN), raises concerns regarding ecological sustainability, including potential forest degradation, increased flood risks, and the marginalization of local communities. This study examines Qur'anic environmental theology and its relevance to sustainable urban development, particularly in establishing an ethical framework for IKN.

Methodology – Study employs a qualitative library research approach using thematic Qur'anic interpretation (tafsīr mawḍūʿī). Primary sources comprise selected Qur'anic verses interpreted through classical and contemporary exegesis, while secondary sources include national regulations, academic literature, and empirical studies concerning IKN. The data are analyzed thematically and comparatively to identify ecological principles and examine their relevance to sustainable urban development.

Findings – The study identified three interconnected principles: ecological balance and prosperity reflected in the portrayal of Saba' (Qur'an 34:15), justice as an ethical foundation for environmental governance (Qur'an 7:29), and responsible utilization of natural resources (Qur'an 67:15). These principles provide a normative basis for evaluating the IKN's forest city concept, green economy initiatives, and equitable resource management, emphasizing the integration of ecological responsibility and social justice into urban development.

Research implications/limitations – The findings offer an Islamic ethical perspective for policymakers and urban planners seeking to integrate environmental sustainability with normative values. However, the study is limited to textual and literature-based analysis and does not empirically assess the implementation or ecological outcomes of IKN's development policies.

Originality/novelty – This study contributes to the discourse on sustainable urban development by integrating thematic Qur'anic interpretation with the specific ecological challenges of IKN. It proposes a Qur'an-based environmental ethics framework that complements existing legal, economic, and urban planning approaches by emphasizing ecological balance, justice, and responsible resource management.

Kata Kunci: Environmental Ethics; Ibu Kota Nusantara; Islamic Ecotheology; Qur'anic Interpretation; Sustainable Urban Development

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A. INTRODUCTION

Indonesia's capital has officially been relocated from the Special Capital Region of Jakarta (DKI Jakarta) to Nusantara Capital City (IKN), located in North Penajam Paser Regency, East Kalimantan. This relocation was established under Presidential Decree No. 62 of 2022 and Law No. 21 of 2023, which outline the authority and institutional framework of the Nusantara Capital Authority (OIKN). Alongside this transition, the designation of Jakarta was changed from the Special Capital Region of Jakarta to the Special Region of Jakarta. According to the 2021 Handbook on the Relocation of Indonesia's National Capital, the primary objectives of relocating the capital from Jakarta to Nusantara are to stimulate development in other regions and address the environmental challenges facing Jakarta as a consequence of extensive urbanisation (Pramono et al., 2025). This conclusion is supported by the Indonesia Population Projections 2015–2045, based on the 2015 Intercensal Population Survey (SUPAS), which indicate that approximately 57% of Indonesia's population is concentrated on the island of Java. This high population concentration has contributed to several environmental challenges, including deteriorating air quality, increasing pressure on clean water availability, and the reduction of green spaces (Badan Pusat Statistika, 2018).

Rapid and unregulated urban growth often triggers pollution, congestion, water stress, and ecosystem degradation, particularly in developing countries (HABITAT, 2013). Jakarta illustrates these pressures: land subsidence in Muara Angke was recorded at about 4.5 cm per year in 2025, with heavy groundwater extraction accelerating the process (Prasetyo, 2026), while satellite data from the National Research and Innovation Agency (BRIN) indicate rates above 10 cm per year in some areas (Suryo, 2026). Relocating the capital to the Nusantara Capital City (IKN) was intended to ease such pressures, yet IKN itself faces ecological strain. The IKN Authority reported that more than 13,000 hectares of forest within the area had been damaged, including 4,236 hectares converted into illegal coal mines and 8,338 hectares into unauthorized plantations, even though only a quarter of the 252,000-hectare site was planned for development (Asian News Network, 2025). Nationally, Auriga Nusantara recorded 261,575 hectares of deforestation in 2024 and suspected that the capital project contributed to rising forest loss in Kalimantan (Hariandja, 2024). These problems stem from the weak on-the-ground protection of the area, Jakarta’s continued reliance on

groundwater, and a development approach that prioritizes physical and economic aims over conservation values (Rahmadita et al., 2025).

Several previous studies have linked urbanization, capital relocation, and Islamic dimensions of development, yet each differs from this study. First, (Fitryansyah, 2024) presents *khalīfah, amānah, and mīzān* as an ethical foundation for urban environmental preservation. Like this study, it begins from Qur'anic environmental ethics, including amānah. It differs in remaining general, with no attention to IKN, whereas this study reads that ethic through the IKN case. Second, Rahmadita et al. (2025) apply thematic interpretation *(tafsīr mawḍūʿī)* to verses on natural beauty to support livable cities. The two studies share a thematic exegetical approach and a concern for urban ecology. However, that study focuses on the livable city in general, whereas this study examines the accounts of Saba', *al-qisṭ–wasaṭiyyah*, and *amānah* to assess the development of IKN. Third, Asmuni & Farida (2024) evaluated the relocation through maqāṣid al-sharīʿah, concluding that it is a secondary need *(ḥājiyyāt)* rather than a primary necessity *(ḍarūriyyāt).* Both studies take the relocation to IKN as their object and ground their analysis in Islamic values. Their approachand, however, is normative-legal and does not engage Qur'anic ecological ethics, whereas this study combines thematic exegesis with current ecological evidence. Fourth, Mukhtar (2024) emphasizes religious moderation for social harmony in the IKN region. Both studies treat moderation as an important value for building IKN, but that study stops at social dimensions and human development without linking moderation to ecological balance.

To the authors' knowledge, no study has used thematic exegesis of the Qur'anic verses on the people of Saba' and the values of *al-qisṭ–wasaṭiyyah* and *amānah* to read the ecological challenges of IKN. The novelty of this study therefore lies in three contributions: it takes Saba' as a model of a prosperous, balanced city; it builds a framework of Qur'anic environmental ethics from that account together with the principles of justice–moderation and trust; and it integrates social moderation with ecological moderation in assessing the development of IKN. In doing so, it enriches theoretical discourse on sustainable development and offers a normative perspective consistent with Islamic values and global sustainability principles.

Accordingly, the study is guided by three questions: (1) how can nature be safeguarded without neglecting the demands of sustainable development in building IKN;

(2) what Qur'anic values concerning ecological balance and sustainable development can be derived through thematic interpretation; and (3) how relevant are these values for formulating an Islamic environmental ethic capable of responding to the challenges of modern urbanization? The study aims to (1) formulate principles of nature stewardship consistent with sustainable development in IKN; (2) derive Qur'anic values of ecological balance and sustainable development through thematic exegesis; and (3) construct a framework of Qur'anic environmental ethics that can serve as a normative foundation for stakeholders in the development of IKN.

B. RESEARCH METHODOLOGY

This study is a qualitative library-based research with a descriptive-analytical design, combining a normative-textual approach to derive Qur'anic principles with a contextual approach to relate them to conditions in Nusantara Capital City (IKN). The method is thematic exegesis (*tafsīr mawḍūʿī*): the researchers determined the theme of ecological balance and sustainable development, collected the relevant verses (Q. Saba' [34]: 15, Q. al-A'rāf [7]: 29 and 31, and Q. al-Mulk [67]: 15), and examined them through the works of al-Qurṭubī, Ibn ʿĀshūr, Ibn Kathīr, Rashīd Riḍā, and Sayyid Quṭb. The researchers served as the key instrument, assisted by a document-review matrix and an exegesis coding sheet. Data were gathered through documentation, covering the Qur'anic verses and exegetical works as primary data and national regulations, UN-Habitat and World Economic Forum reports, and peer-reviewed studies from 2021 to 2026 as secondary data. The literature was retrieved from Google Scholar, ResearchGate, and publisher portals such as MDPI and Springer. Classical exegetical works were accessed through the Internet Archive, and official reports were obtained from institutional websites, using the keywords "Ibu Kota Nusantara," "IKN," "urbanisasi," "urban green space," "ekoteologi Islam," and "tafsir tematik."" The data were analyzed through reduction, thematic display, and conclusion drawing, comparing classical and contemporary interpretations before applying them to IKN. Credibility was maintained through source triangulation, verification of verses and regulations against original texts, and an audit trail of sources and analytical decisions (Lincoln & Guba, 1985).

C. RESULT AND DISCUSSION

1. The Potential for urbanization in the Development of Indonesia's New Capital City (IKN)

Urbanization has emerged as a major global challenge in the twenty-first century, affecting both developed and developing countries. Rapid urban expansion has accelerated land-use changes, particularly the conversion of vegetated landscapes into built-up areas, thereby placing increasing pressure on urban ecosystems. A study entitled *Evolution of Green Space under Rapid Urban Expansion in Southeast Asian Cities* revealed that the proportion of green spaces in Jakarta, Kuala Lumpur, and Metro Manila declined from approximately 45% to 20% between 1989 and 2014. This reduction has contributed to the fragmentation of urban green spaces, the intensification of urban heat island effects, the degradation of ecosystem services, and declining environmental quality (Muhamad Nor et al., 2021a). These ecological challenges are particularly relevant to the development of Indonesia's new capital city, Ibu Kota Nusantara (IKN), which seeks to integrate urban development with environmental conservation through the forest city concept. However, recent studies indicate that rapid infrastructure development and land-use transformation may threaten ecological sustainability if not accompanied by effective environmental governance (Abdillah et al., 2025). projected that the combined effects of urbanization and global warming could increase early nighttime temperatures in parts of IKN by up to 2.54°C under a mid-century scenario, while (Irfaddien et al., 2026) identified decline in forest quality and land-cover change within the new capital region. These findings highlight the importance of ensuring that the forest city concept extends beyond urban planning objectives to encompass measurable ecological conservation and sustainable resource management. From the perspective of Qur'anic environmental theology, these challenges also underscore the need for an ethical framework grounded in ecological balance (*mīzān*), justice (*ʿadl*), and human responsibility as stewards of the Earth (*khalīfah*). Integrating these principles into the IKN's development framework may provide a complementary normative foundation for reconciling infrastructure expansion with environmental preservation, social justice, and long-term ecological sustainability.

Research examining urbanization in ten cities across major economies, including China and the United States, revealed that eight out of ten cities exhibited divergent spatial development patterns, in which population and economic centers shifted in

different directions from the centers of urban green spaces. The decline in green spaces has also been observed in Shanghai, where urban expansion has led to extensive land-use conversion, particularly in areas surrounding the Outer Ring Expressway and the Suburban Ring Expressway. Approximately 1,522 km^2 of green space was converted into built-up areas, reflecting the substantial pressure exerted by urban development on natural landscapes (Liu et al., 2021).

Similar challenges are not limited to Asia and North America but have also been observed in African cities, particularly Tunis, Tunisia. Research indicates that the proportion of built-up areas in Tunis increased from 8.8% in 2000 to 12.1% in 2020, while green spaces declined from 23% to 20.9% during the same period. These findings suggest that rapid urbanization has contributed to the reduction of urban green spaces. In the absence of effective spatial planning, remaining green areas may become increasingly fragmented and unevenly distributed, potentially undermining environmental sustainability and the quality of urban life. Taken together, these studies demonstrate that the ecological consequences of urbanization represent a global challenge affecting cities across different geographical and socioeconomic contexts (Muhamad Nor et al., 2021b).

The uncontrolled conversion of green spaces presents serious environmental challenges, as these areas play an essential role in maintaining air quality, regulating local temperatures, and supporting ecological functions. Extensive land-use conversion may contribute to increased air pollution, particularly when accompanied by rapid population growth, rising motor vehicle use, and industrial expansion. Furthermore, urbanization may intensify environmental hazards, including flooding, as the expansion of impervious surfaces reduces the capacity of the land to absorb rainwater. Rapid urban growth also increases the generation of domestic and industrial waste, which, when inadequately treated, may contaminate rivers and other water bodies, thereby placing additional pressure on aquatic ecosystems (Feng dkk., 2021).

In 2022, the Government of Indonesia initiated the development of a new national capital, Ibu Kota Nusantara (IKN), located in East Kalimantan on the island of Borneo. The relocation was intended to promote a more equitable distribution of national development and economic opportunities, particularly beyond the island of Java. This objective was emphasized by Indonesia's seventh president, who highlighted the

concentration of approximately 58% of the country's gross domestic product and 56% of its population on Java. He argued that such concentration demonstrated the need to shift from a Java-centered development model toward a more inclusive, Indonesia-centered approach (Kementerian Sekretariat, n.d.).

The development of IKN is therefore expected to serve as a strategic initiative for redistributing infrastructure investment and economic activities beyond Java. However, as the new capital develops into an emerging administrative and economic center, it is also likely to experience substantial urbanization and associated land-use transformations. Similar to patterns observed in other rapidly developing cities, infrastructure expansion in IKN has resulted in significant changes in land cover (Andita dkk., 2023). Reported an increase in the extent of open or cleared land within the IKN development area, highlighting the scale of landscape transformation associated with the project. Such changes raise concerns regarding the potential loss of vegetation, habitat fragmentation, and the reduction of natural water infiltration capacity. Another ecological concern associated with land-cover transformation in IKN is the potential increase in surface runoff and peak river discharge, particularly within catchment areas connected to the Trunen River, Semuntai River, and tributaries of the Sanggai River. Hydrological modeling indicated that projected land-cover changes could increase peak discharge and runoff volume by approximately 10%, with a reported peak discharge of 38.8 m^3/s under the 2035 scenario. These projections suggest that continued urban expansion, if not accompanied by appropriate drainage systems, watershed protection, and sustainable land-use planning, may increase hydrological pressures within the development area. Collectively, these findings demonstrate that the development of IKN involves not only economic and infrastructural transformation but also ecological challenges that require careful consideration in the formulation and implementation of sustainable urban development policies (Dimas Harya Wisanggeni et al., 2024).

Beyond ecological concerns, the development of IKN is restructuring how land is held and used by local communities. At least 13 Indigenous territories in North Penajam Paser Regency are affected by the IKN site, plantation concession permits covering 30,000 hectares overlap with Indigenous territories, and nearly half of the land earmarked for development is community-owned (Syaban & Appiah-Opoku, 2024). Indonesian studies point the same way (Bernard et al., 2025) find that limited Indigenous

involvement in planning can trigger social conflict over land rights and cultural identity. A study (Devinta & Addiansyah, 2024) reports, citing AMAN, that 21 Indigenous communities around IKN have been verified and that customary land rights have been violated, with inadequate compensation. The IKN Authority has denied forced evictions and says development proceeds through dialogue. Migration compounds these pressures and is already underway: since Nusantara was designated, Balikpapan's population has grown by 146,032 and North Penajam Paser's by 48,975, raising competition for jobs, land, housing, and public services (Syaban & Appiah-Opoku, 2024). A comparable pattern appears in Shahdara Town, Lahore, where the population density rose from 35,516 to 54,530 persons per km^2 between 1998 and 2017, while formal green space remained scarce in the densest areas (Rehman et al., 2023). Assessing IKN's own plans (Rachmawati et al., 2024) finds strong green space and transport provisions but remaining shortcomings in disaster-risk mitigation and social aspects.

Taken together, these findings show two linked problems. Ecologically, the conversion of 92.23 km^2 of vegetation to built-up land between 2003 and 2023 reduces ecosystem services (Syaban & Appiah-Opoku, 2024), and evidence from other cities shows that the loss of green areas increases surface runoff and flooding (de Lima et al., 2023). Socially, Indigenous communities risk being marginalized from the land they manage, while migration intensifies competition over scarce resources. These are the issues to which the Qur'anic ethics of *amānah* (trust) and *al-qisṭ* (justice) speak most directly if land and nature are held in trust. Development that dispossesses those who steward them or consumes ecological functions faster than they can be restored falls short of that standard.

The marginalization of local communities is a significant social challenge associated with urbanization in both developed and developing countries. Similar patterns of population displacement and migration have also been observed in Indonesia. Research by Nasrullah Hidayat indicates that the number of migrants in Indonesia reached approximately 3.7 million in 1980, increased to 5.2 million in 1990, and subsequently declined slightly to 4.3 million during the 1990–1995 period (Hidayat, 2020). These demographic changes illustrate the scale of population mobility associated with urbanization, which may create additional pressures on local communities, particularly regarding access to land, economic opportunities, and social resources.

2. Ecological Values in the Qur'an

a. Representation of a Prosperous City Based on the Description of the Land of Saba'

The Qur'an, as a source of divine guidance, provides principles and historical narratives that offer lessons for various aspects of human life, including environmental management. Regarding the use of natural resources, the Qur'an presents the land of Saba' as an example of prosperity associated with favorable environmental conditions. This portrayal emphasizes that development should not merely pursue short-term material and economic gains but should also prioritize long-term sustainability, ecological balance, and social justice. Such an approach underscores the importance of preventing excessive resource exploitation and ensuring that economic progress does not compromise environmental preservation or the well-being of future generations (Saputra & Siradjuddin, 2024). Allah SWT states in Surah Saba' [34]:15:

لَقَدْ كَانَ لِسَبَإٍ فِي مَسْكَنِهِمْ آيَةٌ ۖ جَنَّتَانِ عَنْ يَمِينٍ وَشِمَالٍ ۖ كُلُوا مِنْ رِزْقِ رَبِّكُمْ وَاشْكُرُوا لَهُ ۚ بَلْدَةٌ طَيِّبَةٌ وَرَبٌّ غَفُورٌ

> "Indeed, there was a sign for the people with Saba' in their dwelling place: two gardens on the right and on the left. [They were told], 'Eat from the provision of your Lord and be grateful to Him.' A good land and a forgiving Lord."

This verse portrays a prosperous society characterized by abundant natural resources and favorable environmental conditions. Al-Qurṭubī explains that the gardens of Saba' contained various kinds of fruits, reflecting the fertility and agricultural productivity of the region (al-Qurṭubī, 2006). From an ecological perspective, this description can be interpreted as illustrating the importance of productive land management and the sustainable use of natural resources. Furthermore, Ibn 'Āshūr discusses the expression *jannatāni* (two gardens) in relation to the prosperity and favorable conditions enjoyed by the people with Saba.' This description may be understood as symbolizing the relationship between environmental abundance and societal well-being ('Āshūr, 1984).

Accordingly, the portrayal of Saba' provides a conceptual foundation for understanding the relationship between ecological prosperity, responsible resource management, and human welfare. In the context of contemporary urban development, these values may serve as an ethical reference for promoting harmony between infrastructure expansion and environmental preservation. Accordingly, the portrayal of

Saba' provides a conceptual foundation for understanding the relationship between ecological prosperity, responsible resource management, and human welfare. This interpretation is consistent with an integrative epistemological framework that emphasizes the interconnected roles of revelation, reason, and empirical reality in developing an applicable and sustainable understanding of contemporary challenges (Ramlah et al., 2025). Within this framework, Qur'anic revelation provides the normative foundation, rational inquiry facilitates the interpretation and contextualization of ethical principles, and empirical evidence enables their application to contemporary environmental challenges. In the context of Ibu Kota Nusantara (IKN), such an approach offers a conceptual basis for reconciling modern infrastructure development with ecological preservation. Therefore, the ecological values reflected in the Qur'anic portrayal of Saba may serve not merely as abstract moral guidance but also as ethical considerations for promoting sustainable land management, environmental protection, and socially responsible urban development.

b. The Principle of *al-Wasaṭiyyah* (Moderation)

Al-wasaṭiyyah (moderation) refers to the principles of balance and justice. This concept of moderation is not limited to legal or criminal matters but encompasses all dimensions of human life, including faith, worship, social relations, and the responsible relationship between humans and their environment (Hesty Widiastuty & Khairil Anwar, 2025). In Surah al-A'rāf [7]:29, Allah SWT states:

قُلْ أَمَرَ رَبِّي بِالْقِسْطِ ۖ وَأَقِيمُوا وُجُوهَكُمْ عِندَ كُلِّ مَسْجِدٍ وَادْعُوهُ مُخْلِصِينَ لَهُ الدِّينَ ۚ كَمَا بَدَأَكُمْ تَعُودُونَ

> "Say, 'My Lord has commanded justice.' And direct your faces toward Him at every place of worship and invoke Him, being sincere to Him in religion. Just as He originated you, so will you return [to life]."

This verse emphasizes that the command to uphold justice originates from Allah SWT, the Lord of the universe. Ibn 'Āshūr explains that justice and moderation in this verse represent universal ethical principles encompassing various aspects of human life. Similarly ('Āshūr, 1984), Sayyid Quṭb emphasises that justice should be reflected in both the spiritual and physical dimensions of a Muslim's life (Quṭb, 2003).

In the ecological context, justice entails the appropriate and proportionate utilization of natural resources and land. Justice and moderation in policymaking do not

spontaneously emerge but require a comprehensive assessment of societal needs and the potential negative consequences of development. Accordingly, fulfilling human needs while minimizing adverse environmental impacts reflects the practical application of justice and moderation (Hesty Widiastuty & Khairil Anwar, 2025).

In addition to commanding justice, the Qur'an explicitly prohibits attitudes and behaviors that contradict this principle, particularly isrāf (excessiveness or extravagance). The term isrāf refers to exceeding appropriate limits and encompasses various forms of excess, whether in religious practices, social interactions, or other aspects of human life (Majmaʿ al-Lughah al-ʿArabiyyah, 2004). Such excessive behavior is condemned in Islamic teachings, as Allah SWT states in Surah al-Aʿrāf [7]:31:

يٰبَنِيْٓ اٰدَمَ خُذُوْا زِيْنَتَكُمْ عِنْدَ كُلِّ مَسْجِدٍ وَّكُلُوْا وَاشْرَبُوْا وَلَا تُسْرِفُوْاۚ اِنَّهٗ لَا يُحِبُّ الْمُسْرِفِيْنَ ۚ

> "O children with Adam! Wear your beautiful clothing whenever you attend a place of worship. Eat and drink, but do not be excessive. Indeed, Allah does not like those who are excessive."

In this verse, Allah SWT commands humanity to use and enjoy the resources He has created on Earth. The expressions "eat" and "drink" represent forms of human consumption and the use of natural resources. From an ecological perspective, such use extends beyond individual consumption to encompass various aspects of human life, including land management and natural resource exploitation. However, the verse not only permits humans to benefit from God's creation but also explicitly prohibits isrāf (excessiveness or extravagance). This prohibition emphasizes that the use of natural resources must remain within reasonable limits and should not lead to excessive consumption or environmental degradation. Furthermore, isrāf is not merely regarded as a prohibited behavior in Islamic teachings but may also contribute to ecological disruption by undermining the balance and harmony of the natural order (Riḍā, 1947).

c. Ecosystems as Blessings Bestowed by Allah SWT

Allah SWT, as the Most Benevolent and Supreme Sustainer of the Universe, commands humanity to responsibly manage and use the natural environment. Human beings were not created merely to engage in acts of worship while neglecting the environment in which they live. Rather, they are entrusted with an active responsibility

to manage, preserve, and restore nature from environmental degradation (Yitinah & Noviani, 2024). In Surah al-Mulk [67]:15, Allah SWT states:

هُوَ ٱلَّذِى جَعَلَ لَكُمُ ٱلْأَرْضَ ذَلُولًا فَٱمْشُوا۟ فِى مَنَاكِبِهَا وَكُلُوا۟ مِن رِّزْقِهِۦ ۖ وَإِلَيْهِ ٱلنُّشُورُ

> "It is He who has made the earth manageable for you, so travel throughout its regions and eat from His provision. Furthermore, to Him is the resurrection."

This verse reflects the divine attribute of rubūbiyyah (Lordship and Sustenance), through which Allah SWT has made the Earth accessible and beneficial for human use. The command to benefit from the Earth carries a broad meaning, encompassing various aspects of human life, including the use of natural resources and environmental management. Ibn Kathīr explains that such use includes traveling across the Earth, engaging in agricultural activities, and seeking sustenance (Ibn Kathīr, 1999).

Quraish Shihab (2005), referring to Sayyid Quṭb's interpretation, explains that the term *dhalūlan* (manageable or accessible) implies humanity's capacity to utilize and develop the Earth through knowledge and technology while simultaneously emphasizing the moral responsibility accompanying such utilization (Shihab, 2005). This moral responsibility in environmental management can also be understood through the concluding phrase of the verse, *wa ilayhi al-nushūr* (and to Him is the resurrection). The phrase indicates that human activities, including the utilization and management of natural resources, are ultimately subject to divine accountability. From an ecological perspective, this understanding suggests that human intervention in nature should be guided by ethical responsibility, recognizing that environmental management may generate both beneficial and harmful consequences for ecosystems and human well-being.

3. Implementation of Qur'anic Values in the Development of Indonesia's New Capital City (IKN)

Urbanization accompanying the development of IKN has already produced ecological costs, chiefly through land clearing. Between 2003 and 2023, 171.33 km^2 of land in the IKN area was converted to built-up use, including 92.23 km^2 of vegetation and 37.80 km^2 of farmland (Syaban & Appiah-Opoku, 2024). A recent satellite-monitoring preprint of the core government area reports that between 2021 and 2026, developed land expanded by 670.42%, while total vegetation cover fell by 18.14% (Ong et al., 2026).

This contrasts with the Qur'anic portrait of the people of Saba', whose prosperity is symbolized by "two gardens on the right and on the left" (Q. Saba' [34]: 15), an image Classical Qur'anic exegetes, including al-Qurṭubī and Ibn 'Āshūr, associate with the fertility, agricultural abundance, and prosperity of the land. From a contemporary ecological perspective, this portrayal may be interpreted as highlighting the relationship between environmental resources, responsible land management, and societal well-being (al-Qurṭubī, 2006; 'Āshūr, 1984). Read as signifying fertile land and ecological stability. Planning for IKN should therefore be oriented toward the forest-city concept, which aims to preserve 70%–75% of the surrounding forest cover (Nurron et al., 2025), and toward a green economy that pursues socially just and environmentally sound growth, meeting present needs without compromising future generations (Ichwan et al., 2022). Rachmawati et al. (2024) found that IKN's plans include large green open spaces and integrated transport but still fall short on disaster-risk mitigation and social aspects.

Q. al-A'rāf [7]: 29 and 31, which enjoin justice (*al-qisṭ*) and warn against excess (*isrāf*), point to a second set of concerns: the marginalization of Indigenous residents amid large-scale migration. Since the capital's designation, Balikpapan's population has grown by 146,032 and North Penajam Paser's by 48,975, and at least 13 Indigenous territories are affected by the site (Syaban & Appiah-Opoku, 2024).. Government therefore must secure social justice and the continuity of local culture (Bernard et al., 2025). Flood risk is a further ecological challenge. IKN is crossed by three rivers, the Trunen, Semuntai, and Sanggai, and studies of other cities link the loss of green areas to greater surface runoff and flooding (de Lima et al., 2023). Retention basins, which temporarily store rainwater and give soil and vegetation time to absorb it, are one way to replace lost infiltration. East Kalimantan's rivers also give it considerable hydropower potential, only part of which is currently used. Studies of hydropower potential in the Mahakam Basin to support IKN (Wahab et al., 2023) and micro-hydro feasibility elsewhere in Kalimantan (Normansyah, 2022) suggest that such energy could help meet the new capital's needs.

Ibn Khaldun's views in the Muqaddimah underscore the ecological urgency of urban development. He wrote that "a city should ensure air circulation remains unpolluted, maintain a supply of clean water, and arrange the layout of buildings so that sunlight and wind can enter." Furthermore, he warned that neglecting to maintain air and

water quality would lead to epidemics and accelerate the collapse of civilization (Khaldūn, 2019). These classical principles demonstrate that the success of urban development cannot be separated from harmony with nature. This is in line with Quranic Surah al-Mulk [67]:15, which affirms that the earth was created in a state of "submission" (dzalūl), so that humanity is entrusted with the responsibility to manage nature's potential wisely using the technology at its disposal.

D. CONCLUSION

This study demonstrates that the development of Indonesia's new capital city, Ibu Kota Nusantara (IKN), presents significant ecological and social challenges resulting from urbanization and land-use transformation, including the reduction of vegetation cover, habitat fragmentation, increased flood risks, and changes in local communities' access to natural resources. Through a thematic Qur'anic interpretation approach, this study identifies three principles of Qur'anic environmental theology relevant to sustainable development: ecological balance, as reflected in the portrayal of the land of Saba' (Qur'an 34:15); justice in environmental governance (Qur'an 7:29); and human responsibility in the utilization of natural resources (Qur'an 67:15). These principles provide an ethical foundation for IKN development that extends beyond economic growth and infrastructure expansion to encompass environmental preservation and social justice. The policy implications of this study emphasize the need to strengthen green space protection, regulate land-use conversion, promote sustainable natural resource management, and ensure the meaningful participation of indigenous communities in planning and decision-making processes. Accordingly, the forest city concept should not merely serve as a vision for physical development but should be translated into governance practices that uphold ecological balance and protect the rights of local communities. Nevertheless, this study is limited to a normative analysis based on existing literature and Qur'anic interpretation and therefore does not empirically evaluate the effectiveness of implementing these principles within IKN's development policies. Future research should examine the practical implementation of IKN's environmental policies through empirical approaches, particularly by assessing land-cover changes, flood risks, and indigenous community participation to evaluate the alignment between sustainable development objectives and their actual implementation.

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