INTERNATIONAL JOURNAL OF NUSANTARA ISLAM ISSN : 2355-651X

Sustainable Agriculture in Subang: Integrating Local Wisdom, Sharia Principles, and Agribusiness Innovation

Nurlailiyah Aidatus Sholihah,[1*] Fikry Ramadhan Suhendar,[2] Faisal Bin Husen Ismail,[3] Muhammad Masruri[4]

[1] Sekolah Tinggi Agama Islam Darussalam Kunir Subang, Indonesia
[2] Sekolah Tinggi Ilmu Ekonomi Miftahul Huda Subang, Indonesia
[3] Universiti Sains Malaysia, Penang, Malaysia
[4] Universiti Tun Hussein Onn, Johor, Malaysia

* Corresponding Author, Email: nurlailiyah@darussalamuniversity.ac.id

Received: January 12, 2026, *Revised*: January 13, 2026, *Accepted*: January 13, 2026, *Published*: January 15, 2026

Abstract: This research examines the influence of local cultural knowledge, Islamic (Sharia-based) values, and agribusiness innovations on the development of sustainable agricultural practices in Subang, West Java, Indonesia. Employing a qualitative document analysis approach, the study explores how indigenous traditions such as the *Mapag Sri* ritual and collective labor systems (*gotong royong*) play a significant role in maintaining ecological sustainability and social cohesion within farming communities. These local practices are reinforced by Islamic ethical principles, including *ʿadl* (justice), *barakah* (divine blessing), and *zakat al-zurʿ* (agricultural almsgiving), which guide moral responsibility in agricultural production, distribution, and resource management. In parallel, the adoption of agribusiness innovations particularly digital farming technologies, cooperative-based management, and improved market access enhances productivity, efficiency, and farmers' economic resilience. The findings demonstrate that sustainability in Subang is not the result of isolated interventions, but rather emerges from a coherent system in which cultural traditions, religious ethics, and modern technological practices mutually reinforce one another. This integrated framework strengthens environmental stewardship, promotes ethical governance, and supports long-term socio-economic resilience in rural communities. The study contributes a context-sensitive model of sustainable agriculture that successfully bridges tradition and modernity within a Muslim-majority setting. It offers valuable insights for policymakers, development practitioners, and scholars concerned with rural development, Islamic economics, and sustainable livelihoods. Furthermore, the model proposed in this research may serve as a transferable framework for other agricultural regions undergoing similar socio-cultural and economic transformations.

Keywords: agribusiness innovation; local wisdom; sustainable agriculture; Sharia Economics.

Introduction

Agriculture has historically served as the backbone of Indonesia's economy, employing a substantial portion of its population and contributing significantly to national food security. In particular, the Subang region of West Java is a compelling case for examining rural agrarian transformation due to its deeply embedded local traditions and growing involvement in agricultural modernization (BPS, 2024). The integration of traditional farming rituals, such as *Mapag Sri* a cultural event to welcome the rice harvest with the evolving demands of global agribusiness, positions Subang as a valuable model of hybrid agricultural practice. Simultaneously, the urgency to meet Sustainable Development

Goals (SDGs), particularly those addressing poverty alleviation, responsible consumption, and environmental sustainability, calls for a reevaluation of how agriculture can be holistically structured (Nations, 2023).

The intersection of culture, religion, and technology in agricultural contexts remains underexplored in the current literature. Local wisdom offers ecological knowledge and ethical farming norms rooted in communal identity (Effendy, 2022). At the same time, the incorporation of Islamic economic principles such as fairness (*ʿadl*), blessings in sustenance (*barakah*), and avoiding exploitation (*gharar*) provides a religious-ethical framework for production and distribution processes (Haneef & Furqani, 2020). These principles support economic justice, social welfare, and environmental stewardship, but they are often studied in isolation from technological innovation. In contrast, agribusiness advancements such as smart farming, digital marketing, and crop export strategies tend to be evaluated based on efficiency and profitability (Srivastava & Kumar, 2023). This study seeks to explore how these seemingly divergent paradigms may be harmonized for sustainable development.

Several empirical studies have highlighted the role of local knowledge in maintaining agricultural biodiversity and ecosystem services, especially in the Global South (Altieri & Nicholls, 2017). Others have demonstrated how *Sharia*-compliant financial systems foster inclusivity and risk-sharing mechanisms among rural farmers (Daud et al., 2021). Yet, there is a clear gap in integrative studies that examine how local wisdom and Islamic values interact with contemporary agribusiness innovation in real-life farming communities. Without such integration, development models risk being either overly technocratic or culturally detached, undermining their long-term effectiveness. A nuanced framework that respects socio-cultural and religious contexts while embracing innovation is necessary for transformative agricultural practice (Nurkidam & Mahyudin, 2023).

In light of this, the Subang region presents a unique context for investigating the convergence of indigenous knowledge, Islamic ethics, and agribusiness modernization. Farmers in this region are increasingly adopting precision technologies and forming collaborative farmer groups to optimize production while maintaining ritual traditions and *Sharia*-compliant practices (Mubarok & Haryanto, 2023). This coexistence challenges binary assumptions between modernity and tradition, suggesting a blended pathway to sustainability that respects identity and ensures resilience. The study adopts a qualitative approach, drawing on document-based analysis to reveal the patterns, values, and outcomes of this integration.

The central research questions guiding this study are as follows: (1) How does local wisdom contribute to sustainable agricultural practices in Subang? (2) In what ways are *Sharia* principles manifested in the production and distribution of agricultural goods? (3) How do agribusiness innovations reinforce or challenge these traditional and religious paradigms? By answering these questions, the study aims to contribute both theoretically and practically to discussions on sustainable agriculture in Muslim-majority contexts. The objectives are to construct a conceptual model of integrated agricultural development and to propose actionable strategies for stakeholders seeking to scale such models in culturally sensitive ways.

Recent scholarship has emphasized the multidimensional nature of sustainable agriculture, especially in regions where traditional practices, religious values, and modern innovations coexist. Local wisdom understood as the embodied knowledge, customs, and ecological practices of indigenous communities has been widely recognized for its role in biodiversity conservation, soil fertility, and pest management (Altieri & Nicholls, 2017). In Indonesia, traditions like *Mapag Sri* are more than ritualistic ceremonies; they are embedded systems of environmental stewardship and social cohesion (Supriatna, 2023). Scholars have highlighted how this cultural capital enhances resilience by fostering community participation and ethical stewardship over natural resources (Amatillah & Lestari, 2021; Berkes, 2018). However, the lack of frameworks that systemically integrate these practices with formal development agendas often leads to marginalization of local farmers in decision-making processes (Yusron, 2022).

Parallel to this is a growing body of literature on Islamic economics and its relevance to sustainability. The values of *ʿadl* (justice), *barakah* (blessing), and *ḥalāl-ṭayyib* (lawful and wholesome) have been applied in areas such as Islamic banking, halal supply chains, and agricultural financing (Asutay, 2019; Haneef & Furqani, 2020). These principles not only promote ethical consumption and fair production but also serve as a moral compass for environmental balance

(Dusuki & Abozaid, 2021). However, scholars note a significant gap in studies that directly connect *Sharia* principles with real-world agricultural practices, especially in relation to innovations such as smart farming or agribusiness digitalization (Rohmah & Wulandari, 2024). The literature tends to treat Islamic values as abstract ethical considerations rather than as operational principles in field-level agriculture, thereby limiting their transformative potential.

At the same time, the field of agribusiness innovation has rapidly evolved, emphasizing the use of data-driven technologies, precision tools, and global value chain integration to enhance productivity and market reach (Srivastava & Kumar, 2023). Smart farming, climate-resilient seeds, and farmer cluster formations are increasingly applied in Indonesian contexts, particularly in Java and Sumatra (Mulyadi & Herlina, 2024). While these innovations promise efficiency and scalability, critics argue that they risk displacing traditional knowledge systems and deepening inequality if not carefully contextualized (Nurkidam & Mahyudin, 2023). Thus, there remains a scholarly need to examine how innovation can serve not replace local and religious paradigms. This research positions itself at the intersection of these three literatures, seeking to articulate a hybrid model of sustainable agriculture that is locally rooted, ethically grounded, and technologically forward.

Building upon these debates, it becomes evident that sustainable agricultural development cannot be achieved solely through technical efficiency or market-driven logic. In regions such as Subang, where agriculture is deeply embedded in cultural memory and religious worldview, sustainability must also be understood as a moral and social process. The persistence of local rituals, collective labor arrangements, and ethical norms reflects farmers' efforts to maintain harmony between humans, nature, and divine responsibility. Ignoring these dimensions risks producing development interventions that are socially disruptive, environmentally fragile, and ethically disconnected from local realities. Moreover, the pressures of climate change, market volatility, and land conversion increasingly challenge smallholder farmers, making resilience a critical concern. Integrated approaches that combine indigenous ecological knowledge, Sharia-based ethical guidance, and adaptive agribusiness innovation offer a promising pathway to address these challenges holistically. Such integration allows farmers not only to improve productivity and income, but also to preserve social solidarity, ensure fair distribution of benefits, and sustain long-term environmental balance. In this sense, sustainability is reframed not merely as an outcome, but as a continuous practice shaped by values, institutions, and technological choices (Sousa et al., 2017).

This study therefore positions Subang as an illustrative case for rethinking agricultural modernization in Muslim-majority societies. By examining how local wisdom, Islamic ethics, and agribusiness innovation interact in practice, the research contributes to a more pluralistic understanding of development one that challenges the dominance of uniform, secular-technocratic models. The findings are expected to inform policymakers, development agencies, and agricultural stakeholders about the importance of culturally and religiously grounded strategies for sustainable rural transformation. Ultimately, this research argues that the future of sustainable agriculture lies in integrative frameworks that respect tradition, uphold ethical responsibility, and selectively embrace innovation as a tool for collective well-being rather than mere economic growth (Vu & Asongu, 2020).

Method

The type of data utilized in this study is primarily qualitative and textual in nature. Qualitative data enables a deeper exploration of the values, beliefs, and practices that shape sustainable agriculture in Subang. Rather than relying on numerical indicators alone, this study focuses on narrative descriptions, thematic patterns, and contextual interpretations derived from relevant scholarly texts and field-based ethnographic documentation (Creswell & Clark, 2018). The data includes cultural rituals, religious economic practices, and agribusiness implementation strategies that cannot be effectively quantified but are essential for capturing socio-cultural complexity. Such an approach aligns with the interpretivist paradigm, which prioritizes meaning-making processes embedded in local contexts (Denzin & Lincoln, 2018). The primary data sources consist of academic journal articles, policy documents, government reports, and published ethnographies. These materials have been carefully selected from reputable international databases, Indonesian scholarly publications, and institutional archives. In particular, sources related to local cultural practices in West Java, Islamic economic principles, and smart farming initiatives are emphasized. Examples include Indonesian

SINTA-accredited journals, books on Islamic development economics, and field studies on precision agriculture (Haneef & Furqani, 2020; Mulyadi & Herlina, 2024; Supriatna, 2023). This diverse collection of materials ensures that the data represents both scholarly insights and locally embedded knowledge systems.

To collect the data, a document analysis technique was employed. This method involves systematically reviewing and interpreting written content to uncover patterns, themes, and meanings relevant to the research questions (Bowen, 2009). The documents were evaluated for their relevance, credibility, and representativeness, ensuring that each piece contributes meaningfully to the understanding of sustainable agriculture in the Subang context. Particular attention was paid to how these documents describe interactions among local wisdom, *Sharia* values, and agribusiness innovation. Document analysis is especially suitable for capturing historical continuity, religious interpretations, and evolving farming models without necessitating direct fieldwork. For data analysis, this study adopted a thematic analysis technique. Thematic analysis involves identifying recurring ideas or categories that emerge across the textual data, allowing the researcher to construct a coherent narrative (Braun & Clarke, 2006). The themes were derived deductively from the research questions and theoretical framework namely, local wisdom, Islamic economic ethics, and technological innovation and inductively from emerging textual patterns. This dual approach ensures both theoretical alignment and empirical sensitivity. Thematic analysis also facilitates comparison between different conceptual domains, such as aligning smart farming initiatives with *Sharia*-based ethical frameworks.

Drawing conclusions in this study follows a pattern of interpretive synthesis. Findings are integrated from various textual data points and aligned with the guiding theoretical frameworks to answer the research questions. This process involves both intra-theme coherence and inter-theme synthesis to build a comprehensive model of sustainable agriculture in Subang. The goal is not merely to describe practices but to reveal their interconnected logic and potential for replication. The final conclusions articulate how integrating local traditions, Islamic values, and modern agribusiness can generate a sustainable agricultural paradigm that is ethical, efficient, and culturally resonant (Yin, 2018).

Results and Discussion

The findings of this study illustrate that sustainable agriculture in Subang is not merely a product of modern techniques or policy prescriptions, but rather the outcome of a deeply integrated system that unites local wisdom, *Sharia* principles, and agribusiness innovation. This multidimensional framework is supported by the theoretical insights discussed earlier—local ecological knowledge provides cultural continuity and environmental sensitivity; Islamic economic ethics ensure justice and spiritual orientation; and technological innovation introduces efficiency and scalability (Altieri & Nicholls, 2017; Haneef & Furqani, 2020; Mulyadi & Herlina, 2024). The synthesis of these elements suggests that sustainability in Subang cannot be viewed through a single lens. Rather, it emerges from the interplay of tradition, morality, and modernization, forming a dynamic equilibrium that promotes resilience in both livelihoods and ecosystems.

This study advances existing scholarship by proposing an integrative and context-sensitive framework that moves beyond the fragmented treatment of culture, religion, and technology in agricultural research. Much of the earlier literature has examined these dimensions separately local wisdom as a cultural artifact, Islamic principles as normative ethics, and agribusiness innovation as a technical intervention. By contrast, the present research demonstrates that sustainability emerges most effectively when these elements are treated as an interconnected system. Such an approach aligns with broader critiques of reductionist development models that overlook socio-cultural embeddedness in favor of universal technological solutions. The findings underscore that sustainable agriculture in Muslim-majority rural contexts must be understood as a relational process shaped by values, institutions, and practices operating simultaneously at social, moral, and technical levels (Bush & Martiniello, 2017).

A key contribution of this research lies in showing how technological innovation gains legitimacy and acceptance when it resonates with existing cultural practices. In Subang, smart farming tools and data-driven agricultural techniques are not perceived as external impositions when

they are introduced through familiar communal mechanisms, such as collective labor systems and harvest-related rituals like *Mapag Sri*. These rituals function not merely as symbolic traditions but as social infrastructures that facilitate trust, participation, and knowledge exchange. When innovation is embedded within such culturally meaningful practices, it enhances farmers' willingness to experiment and adapt, thereby reducing resistance to change. This finding reinforces arguments in agroecology and rural sociology that innovation diffusion is deeply influenced by cultural compatibility and social learning processes (Pradhan et al., 2018).

Religious ethics further strengthen this integrative model by providing a moral framework that guides decision-making in production and distribution. *Sharia* principles such as ʿadl (justice), barakah (blessing), and mutual responsibility encourage fairness, risk-sharing, and environmental care. The study reveals that Islamic cooperatives play a dual role they serve as instruments of ethical finance while simultaneously acting as trusted platforms for introducing agribusiness innovations. Because these institutions are rooted in religious legitimacy and community leadership, they help translate abstract technological concepts into socially acceptable practices. This supports growing scholarship in Islamic economics that views religious norms not as constraints on development, but as enabling structures for inclusive and ethical economic transformation. Importantly, the research challenges the assumption that modernization necessarily leads to the erosion of tradition or religious authority. Instead, the findings suggest a co-evolutionary process in which tradition, faith, and technology mutually reinforce one another. Agribusiness innovation, when selectively adopted and ethically governed, can enhance rather than undermine local identity and social cohesion. This perspective aligns with post-development and plural modernity theories, which argue for multiple pathways to progress rather than a single, linear model of modernization. By documenting this hybrid trajectory, the study contributes empirical evidence to debates on how rural societies negotiate change without sacrificing cultural and moral foundations (Vu & Asongu, 2020).

From a practical standpoint, the framework developed in this study offers strategic implications for policymaking, education, and agribusiness planning. Policies that recognize cultural rituals, support *Sharia*-compliant institutions, and promote context-aware innovation are more likely to achieve long-term sustainability. Likewise, agricultural curricula and extension programs can benefit from integrating ethical and cultural literacy alongside technical training. Ultimately, this research positions integrated sustainability not merely as a theoretical ideal, but as an actionable model for rural development in Muslim-majority regions navigating rapid socio-economic change (Schall et al., 2018).

Reviving Ecological Harmony through Local Wisdom in Subang

This section responds to the first research question by examining the contribution of local wisdom to sustainable agricultural practices in Subang. Empirical observations and document analysis indicate that indigenous ecological knowledge expressed through ritual practices, oral traditions, and shared community norms plays a significant role in shaping environmentally responsible farming behavior and strengthening social solidarity. The *Mapag Sri* ritual, for example, serves not merely as a ceremonial marker of the harvest period but also as a collective expression of gratitude toward the natural environment. Through this practice, farmers reaffirm ethical relationships with the land and reinforce awareness of seasonal cycles. Such rituals help regulate planting and harvesting schedules, encourage responsible land management, and foster communal participation in agricultural activities. In this way, local wisdom operates as an informal yet effective system of environmental governance, guiding sustainable resource use while preserving cultural identity and intergenerational knowledge transmission (Amatillah & Lestari, 2021; Supriatna, 2023). In this context, sustainability is not a foreign concept imposed from outside, but an organic outcome of culturally ingrained behavior.

A defining characteristic of local wisdom in Subang is the practice of *gotong royong*, a system of collective labor that emphasizes cooperation, inclusivity, and shared responsibility. Through this arrangement, agricultural tasks are carried out communally, ensuring that benefits and workloads are distributed more equitably among community members. This collaborative model helps prevent excessive exploitation of land by promoting shared oversight and collective decision-making regarding resource use. In addition to enhancing efficiency during labor-intensive farming periods, *gotong royong* strengthens social bonds and fosters mutual accountability among farmers. The system also functions as an informal mechanism for knowledge exchange, allowing sustainable farming

techniques and ecological awareness to be transmitted across generations. By balancing productivity with social cohesion and environmental care, *gotong royong* contributes significantly to the resilience and sustainability of agricultural practices in Subang. (Effendy, 2022).

From an agroecological standpoint, such collaboration significantly enhances farmers' adaptive capacity in responding to environmental uncertainty and economic volatility. Collective action enables the sharing of knowledge related to climate patterns, soil management, and pest control, allowing farmers to adjust practices more effectively when facing droughts, floods, or shifting seasons. Through cooperative networks, risks are distributed more evenly, reducing individual vulnerability to crop failure or price fluctuations. Collaboration also facilitates access to shared resources, including organic inputs, digital information systems, and technical assistance, which are often unattainable for individual smallholders. Moreover, agroecological collaboration strengthens social learning processes, where experimentation and innovation emerge from communal experience rather than isolated trial and error. This social dimension of agroecology fosters resilience by embedding flexibility, mutual support, and continuous adaptation into farming systems. Consequently, collaborative arrangements not only improve ecological sustainability but also reinforce economic stability and social cohesion, enabling rural communities to better withstand external shocks while maintaining long-term productivity and environmental balance (Altieri & Nicholls, 2017). It also enhances trust and knowledge exchange among farmers, allowing for the horizontal diffusion of both traditional and modern farming techniques.

Another expression of local wisdom in Subang can be observed in approaches to pest management and soil conservation. Farmers commonly rely on organic composting techniques and natural pest deterrents that have been transmitted across generations through experiential learning and communal practice. These methods emphasize the use of locally available materials, such as plant-based repellents and organic residues, to enhance soil structure and sustain nutrient cycles. By avoiding excessive dependence on chemical inputs, such practices help preserve soil fertility, protect biodiversity, and reduce ecological degradation. In addition, this knowledge is closely linked to farmers' understanding of seasonal patterns and ecological balance, enabling them to manage pests in ways that are adaptive rather than destructive. As a result, traditional soil and pest management strategies contribute not only to environmental sustainability but also to the long-term resilience of agricultural systems in Subang (Berkes, 2018).

These methods align closely with modern principles of regenerative agriculture, which seek to minimize chemical inputs and restore ecological balance. By integrating this inherited knowledge with current agroecological science, communities reduce dependency on costly inputs and enhance long-term soil productivity. This convergence also mitigates the risk of ecological degradation, a key challenge in monoculture-intensive systems. Furthermore, local customs guide water management through equitable irrigation sharing known as *pengairan gotong royong*. This informal but highly effective system ensures fair distribution of water during dry spells, helping farmers collectively avoid crop failure. Unlike centralized irrigation systems, which often suffer from bureaucratic delays and technical failures, this decentralized, community-led approach exhibits flexibility and resilience (Sulistyo & Ismarti, 2022). Thus, local wisdom functions not only as cultural heritage but also as a living technology that ensures continuity and efficiency.

It is also important to recognize the role of cultural narratives such as songs, folktales, and traditional proverbs in embedding ecological ethics within collective community consciousness. These narrative forms function as informal educational tools that transmit environmental values across generations, often conveying moral lessons about balance, restraint, and respect for nature. Many stories explicitly warn against overexploitation and environmental neglect, while simultaneously promoting reverence for natural entities such as rice paddies, rivers, forests, and mountains. By personifying nature or linking ecological harm to social or spiritual consequences, these narratives cultivate a sense of moral responsibility rather than mere compliance. This symbolic mode of communication reinforces sustainable behavior through shared belief systems and emotional attachment, even in the absence of formal regulatory mechanisms. As a result, ecological stewardship becomes culturally internalized, shaping everyday practices and social norms. Such narrative-based ethics strengthen long-term sustainability by aligning environmental care with identity, memory, and communal values (Supriatna, 2023).

From a sustainability science perspective, these cultural narratives function as a form of "soft

infrastructure" that guides behavior in ways that are both effective and enduring. Rather than relying on formal enforcement, they shape values, expectations, and everyday decision-making within farming communities. However, processes of modernization and external interventions such as the introduction of chemical fertilizers, high-yield seed varieties, or monoculture cash crops pose significant challenges to these traditional systems. When innovations are introduced without cultural sensitivity, they risk displacing or weakening long-standing local knowledge structures. Despite this, the resilience of Subang's farmers is evident in their capacity to adapt and selectively integrate new technologies while preserving their cultural foundations. By filtering innovation through local norms and collective experience, farmers maintain continuity with their traditions. This adaptive capacity, deeply rooted in local wisdom, emerges as a crucial asset for sustainable agricultural transformation (Chambers & Conway, 1992). It ensures that sustainability is not a transient development goal, but a living process anchored in identity, memory, and moral obligation.

In summary, local wisdom in Subang represents a form of sustainable agriculture that is deeply rooted in cultural values, environmental awareness, and social inclusivity. Far from being an outdated tradition, this study demonstrates that indigenous knowledge functions as a vital asset for enhancing agricultural resilience and long-term sustainability. The integration of communal practices, ecological ethics, and shared norms enables farming systems to adapt to environmental and socio-economic challenges while maintaining social cohesion. These findings strengthen the broader proposition that meaningful sustainability cannot be achieved through standardized or externally imposed models alone. Instead, transformative agricultural development must be grounded in local contexts, collective experiences, and intergenerational knowledge systems (Wang et al., 2018). By recognizing and strategically incorporating local wisdom, policymakers and development practitioners can design interventions that are not only technically effective but also culturally legitimate and socially enduring.

Embedding Sharia Principles in Agricultural Ethics and Distribution

This section examines the second research question by exploring how Sharia principles are reflected in the production and distribution of agricultural commodities in Subang. The findings indicate that Islamic ethical values extend beyond individual spirituality and are embedded in everyday agricultural practices, including cultivation methods, market transactions, and cooperative arrangements. A key concept guiding these practices is *barakah* (divine blessing), which farmers commonly interpret as a sign of balance between economic gain, moral conduct, and social well-being. Consequently, agricultural activities are not evaluated solely in terms of profitability but also by their compliance with *ḥalāl* (lawful) and *ṭayyib* (wholesome) standards. This ethical orientation encourages responsible production, fair exchange, and communal benefit, positioning agriculture as a moral endeavor that integrates economic objectives with social and spiritual accountability (Haneef & Furqani, 2020). This theological perspective fosters ethical behavior in planting, harvesting, and selling crops, creating a moral foundation for sustainability.

The principle of *ʿadl* (justice) is especially evident in the establishment and daily functioning of farmer cooperatives that adhere to Islamic financial ethics. Instead of depending on interest-based lending (ribā), these cooperatives adopt equitable financing arrangements, most notably profit-sharing schemes such as muḍārabah and mushārakah. Through these mechanisms, risks and returns are shared proportionally among participants, preventing the concentration of benefits on one party alone. This structure encourages transparency, collective responsibility, and long-term cooperation among members. By grounding financial practices in Qur'anic guidance, the cooperatives foster accountability and mutual trust while minimizing exploitative relationships. Beyond enhancing farmers' economic security, this justice-oriented framework strengthens social cohesion within rural communities. It demonstrates that Sharia-based principles are not merely normative ideals but can be effectively operationalized within modern agricultural institutions to support ethical governance and sustainable development (Dusuki & Abozaid, 2021).

By removing exploitative financial instruments, these models provide more equitable access to capital, particularly for smallholder farmers who are frequently marginalized within conventional credit systems. Interest-free and profit-sharing mechanisms reduce the burden of debt and distribute risk more fairly between capital providers and farmers. As a result, farmers are better able to invest in sustainable inputs, improve productivity, and withstand market or climate-related shocks. This

approach closely aligns with global trends in Islamic finance, which prioritize financial inclusion, ethical investment, and social justice in the allocation of resources. Rather than viewing finance solely as a profit-generating tool, Islamic financial models frame it as a means to support real economic activity and communal well-being. In the context of Subang, such financing arrangements strengthen rural resilience, enhance trust within agricultural cooperatives, and reinforce sustainability by linking economic empowerment with moral responsibility and long-term stewardship (Ismail, 2022). In practice, this has allowed farmer groups in Subang to invest in irrigation systems, seed procurement, and storage facilities without compromising their ethical commitments.

Islamic ethical principles also play a significant role in shaping agricultural distribution practices in Subang. A considerable number of farmers adhere to the obligation of *zakat al-zurʿ*, whereby a designated share of crop yields is allocated to disadvantaged members of the community. This practice institutionalizes social responsibility within agricultural systems and contributes to reducing economic disparities in rural areas. Beyond obligatory giving, distribution and trade are further informed by the values of *ṣidqah* (voluntary charity) and *amanah* (trustworthiness). These principles encourage honesty in transactions, fair pricing, and accurate measurement, while discouraging exploitative behavior and market manipulation. As a result, agricultural exchange in Subang is governed not only by market logic but also by ethical accountability, reinforcing social cohesion and ensuring that economic activities align with broader moral and communal objectives (Asutay, 2019). These values are especially relevant in times of crisis, such as during crop failure or market disruption, when collective welfare takes precedence over individual gain.

The notion of *ḥisbah*, understood as a mechanism of moral and public accountability, remains relevant in contemporary agricultural settings. In Subang, respected farmer leaders and religious figures frequently assume informal supervisory roles to ensure that market transactions and farming practices adhere to Islamic ethical standards. Although these actors do not operate within formal regulatory institutions, their guidance and moral authority exert significant influence over community behavior. Through religious advice, social reminders, and collective expectations, they encourage compliance with principles of fairness, honesty, and responsibility. This form of grassroots oversight functions as an alternative system of regulation, particularly in rural contexts where formal enforcement mechanisms may be limited. By reinforcing ethical norms through communal and religious legitimacy, *ḥisbah* contributes to maintaining integrity in agricultural markets and strengthens trust-based economic relationships within the farming community (Rohmah & Wulandari, 2024). This illustrates how Islamic norms can operate as both internal motivation and external governance tools.

Another important dimension of agricultural practice in Subang is the incorporation of spiritual discipline throughout the farming process. Farmers commonly initiate planting activities with *duʿāʾ* (supplicatory prayers) and organize their agricultural schedules in reference to the Islamic calendar, such as planting during the month of Shaʿbān or completing harvests prior to ʿĪd al-Aḍḥā. These temporal and ritual practices infuse agricultural labor with spiritual significance, framing it as an act of devotion rather than merely an economic pursuit. By embedding religious observance into everyday work, farmers cultivate values of mindfulness, gratitude, and perseverance. This spiritual orientation influences attitudes toward risk, labor, and environmental care, fostering patience and ethical responsibility. As a result, farming becomes a holistic practice that integrates material production with spiritual reflection and moral self-discipline (Effendy, 2022).

Although these practices may appear largely symbolic, they instill structure, intentionality, and discipline within the agricultural cycle, thereby reinforcing sustainability through value-oriented living. By regulating timing and purpose, such acts contribute to more mindful and balanced farming practices. Nevertheless, tensions can emerge when external market pressures or commercial partnerships conflict with Sharia-based ethical standards. For example, contractual arrangements with intermediaries that impose inequitable pricing or encourage monoculture-oriented cash crop production may compromise both moral values and ecological balance. In response, farmers in Subang have increasingly engaged in the formulation of *akad* (contractual) agreements that clearly define fair trading conditions and restrict exploitative behavior. These agreements are frequently developed in consultation with Islamic scholars (*ulama*), ensuring that commercial arrangements remain consistent with both religious principles and legal requirements (Mubarok & Haryanto, 2023).

This development illustrates a dynamic and forward-looking application of Islamic legal

instruments within contemporary agricultural markets. Overall, Sharia principles in Subang extend far beyond doctrinal abstraction and function as practical guidelines for ethical production, exchange, and distribution. By emphasizing values such as justice, divine blessing, and shared responsibility, Islamic ethics contribute to greater social fairness and foster environmentally conscious practices. These principles help shape agricultural systems that prioritize collective well-being over short-term exploitation. As such, the Subang experience offers a compelling alternative to extractive and profit-driven agricultural models that often disregard social and ecological consequences (Raworth, 2017). The findings reaffirm the central argument of this study rather than obstructing sustainability, religious frameworks when contextually applied can actively support and strengthen sustainable development by aligning economic activity with moral accountability and long-term stewardship.

Agribusiness Innovation as a Catalyst for Sustainable Transformation

This section responds to the third research question by examining the ways in which agribusiness innovation interacts with traditional and religious frameworks in Subang. The findings indicate that technological advancement does not automatically undermine cultural or religious norms; instead, its impact depends largely on how innovation is embedded within local values and Sharia-informed ethics. In the Subang context, the use of smart farming technologies including sensor-driven irrigation systems, mobile-based climate information, and precision fertilization techniques has contributed to improved productivity while reducing water, fertilizer, and energy consumption. When introduced through community networks and aligned with ethical considerations, these technologies are perceived as supportive rather than intrusive. As a result, innovation functions as an enabling tool that complements indigenous practices and religious commitments, reinforcing sustainability without displacing established social and moral structures (Mulyadi & Herlina, 2024).

Importantly, these technological tools are introduced not in isolation but through farmer clusters that are firmly embedded within traditional cooperative networks. This communal structure facilitates intensive knowledge sharing, peer-to-peer learning, and collective problem-solving, ensuring that innovation diffusion occurs in an inclusive and participatory manner. By operating within established systems of gotong royong, technological adoption becomes a shared responsibility rather than an individual burden, reducing resistance and increasing trust among farmers. The cooperative setting also allows new practices to be evaluated collectively, filtered through local experience, and adapted to suit ecological and cultural conditions. As a result, modern tools are not perceived as external impositions but as extensions of communal effort. This integration strengthens social capital, enhances learning efficiency, and ensures that technological advancement remains compatible with deeply rooted cultural values, thereby reinforcing the sustainability and resilience of Subang's agricultural systems.

The establishment of digital farmer cooperatives (*koperasi digital petani*) has significantly strengthened the ethical and operational dimensions of agribusiness in Subang. These organizations function as vital intermediaries that connect small-scale farmers with broader markets while providing access to production inputs, technical training, and digital commerce platforms. By pooling resources and information, digital cooperatives help reduce transaction costs and enhance bargaining power, enabling farmers to participate more equitably in value chains. Importantly, these cooperatives often operate within Sharia-compliant frameworks, ensuring that commercial activities adhere to principles of fairness, transparency, and shared benefit. Through the integration of digital tools with collective governance structures, farmer cooperatives promote both efficiency and ethical accountability, illustrating how technological innovation can be institutionalized in ways that support inclusive and values-based agricultural development (Srivastava & Kumar, 2023).

Farmers in Subang increasingly utilize digital marketing platforms that enable direct sales of agricultural products under transparent pricing mechanisms and Islamic contractual arrangements. By facilitating direct interaction between producers and buyers, these systems reduce reliance on intermediaries who often benefit from unequal access to market information and price fluctuations. This shift enhances farmers' bargaining power while promoting fairness and accountability in transactions. In addition, the implementation of digital traceability technologies allows consumers to access detailed information regarding production processes, certification status, and compliance with *ḥalāl* and *ṭayyib* standards. Such transparency strengthens consumer confidence and reinforces religious assurance regarding product integrity (Schwab & Armah, 2019). Consequently, digital

commercialization not only improves market efficiency but also aligns economic exchange with ethical and religious expectations, demonstrating how innovation can address structural inequalities while supporting trust-based agricultural value chains.

From a production standpoint, the adoption of smart farming technologies has reinforced environmentally friendly agricultural practices such as drip irrigation, precision nutrient application, and organic pest management. These approaches significantly reduce water consumption, minimize chemical inputs, and preserve soil and ecosystem health. Beyond their technical benefits, such practices resonate strongly with Islamic ethical principles, particularly *iḥsān* (benevolence) and *ḥifẓ al-biʾah* (environmental protection). Farmers perceive efficient resource use as a moral responsibility toward both creation and future generations, rather than merely a cost-saving strategy. By linking technological efficiency with ethical intention, smart farming becomes a form of responsible stewardship rather than exploitative production. This convergence of innovation and religious values encourages farmers to internalize sustainability as an act of faith, reinforcing long-term environmental care while maintaining productive and economically viable agricultural systems (Haneef & Furqani, 2020).

Farmers report that smart sensors allow them to apply inputs only when necessary, thus avoiding wastefulness an act discouraged in Islamic teachings. In this way, innovation becomes a tool for enhancing spiritual stewardship rather than undermining it. However, challenges remain in the technological adaptation process. Some older farmers resist adopting new tools due to low digital literacy or fear of disrupting traditional cycles. There is also concern that innovation might accelerate individualism, undermining communal farming values. These concerns are mitigated through culturally sensitive training programs led by local leaders and Islamic scholars, who frame innovation as a means to fulfill religious duties like *khilāfah* (stewardship) and *ʿumrān al-arḍ* (prosperity of the earth) (Rohmah & Wulandari, 2024). By framing technology within spiritual narratives, innovation becomes acceptable and meaningful within the traditional worldview.

Innovation also intersects with religious and cultural frameworks through the development of export-oriented agriculture. In Subang, farmers engaged in international halal markets have begun to adopt global benchmarks, including Halal Assurance Systems (HAS) and Good Agricultural Practices (GAP), to meet quality and safety requirements. Although these standards introduce formalized procedures and technical compliance measures, their implementation is increasingly adapted to local contexts through the involvement of Islamic certification institutions and community-based monitoring (Islam & Madkouri, 2018). This process of localization allows global norms to be interpreted in ways that remain consistent with religious values and communal expectations. As a result, participation in international markets enhances economic opportunities without undermining cultural identity or Islamic authenticity. Such alignment demonstrates that global integration and local integrity need not be mutually exclusive, but can instead reinforce one another when innovation is culturally and ethically grounded (Mubarok & Haryanto, 2023).

Export-oriented innovation in Subang is therefore carefully moderated through religious and cultural governance mechanisms that maintain a balance between global market engagement and local legitimacy. International trade practices, including compliance with halal standards and quality certifications, are embedded within systems of ethical oversight and communal accountability. This approach enables farmers to enhance competitiveness while safeguarding cultural identity and religious commitments. Furthermore, technological advancement has broadened participatory monitoring and evaluation through mobile applications and digital dashboard systems. These tools allow farmers to collectively track production performance, market prices, and certification compliance in real time. By democratizing access to information, digital platforms strengthen transparency and shared decision-making, ensuring that export-driven growth remains aligned with ethical values, social cohesion, and sustainable development goals (Gupta et al., 2014).

These digital tools empower farmers to share real-time information on market trends, weather patterns, and pest management, thereby enhancing collective responsiveness and adaptive capacity. By providing immediate access to critical data, farmers can coordinate planting, harvesting, and marketing decisions more effectively, reducing risks associated with environmental variability and price fluctuations. Importantly, several platforms now incorporate Sharia-compliant financial features, enabling transparent tracking of income, calculation of zakat obligations, and management of profit-sharing arrangements. This integration ensures that economic transactions adhere to Islamic

ethical standards while promoting fairness and trust within the cooperative. As a result, technology functions not only as a means to improve operational efficiency but also as a mechanism to reinforce moral accountability and community-centered governance. These innovations demonstrate that digitalization, when thoughtfully implemented, can harmonize productivity gains with ethical and social objectives, supporting sustainable agricultural development in alignment with both religious principles and local communal values (Daud et al., 2021). This integration further blurs the line between religion and technology, showing that the digital space can accommodate spiritual obligations alongside economic functions.

In conclusion, agribusiness innovation in Subang functions as a significant catalyst for sustainable development when it is carefully aligned with established cultural practices and Islamic ethical principles. Instead of eroding traditional or religious values, appropriately contextualized technologies strengthen these foundations by enhancing productivity while preserving moral accountability and social cohesion. The integration of modern agricultural tools within culturally and religiously informed systems ensures that efficiency gains are accompanied by ethical conduct and communal benefit. These findings reinforce the study's core argument that sustainability cannot be achieved through technological advancement in isolation. Rather, it emerges from integrated systems that harmonize innovation with cultural continuity and moral responsibility (Goddek & Körner, 2019). Such an approach offers a more resilient and socially grounded pathway for agricultural transformation in rural, Muslim-majority contexts.

This study demonstrates that sustainable agriculture in Subang, West Java, is the result of a synergistic integration between local wisdom, *Sharia* principles, and agribusiness innovation. The first research question regarding the role of local wisdom was answered through findings that underscore the enduring value of communal traditions such as *gotong royong*, *Mapag Sri*, and organic pest control practices (Lin et al., 2016). These culturally embedded systems act as informal governance mechanisms that regulate environmental behavior and foster collective responsibility. In addressing the second research question, the study found that *Sharia* values such as *ʿadl*, *barakah*, and *zakat al-zurʿ* play an active role in structuring fair production and distribution systems. These religious principles ensure that economic activity remains ethically grounded and socially beneficial. The third research question on the function of agribusiness innovation was addressed through evidence of digital cooperatives, smart farming tools, and *halal* export standards, which, when properly localized, amplify the effectiveness of both cultural and religious frameworks (Geels, 2004).

Theoretically, this research contributes to sustainability studies by developing a culturally and ethically grounded model that moves beyond technocratic paradigms. It challenges the notion that innovation must displace tradition and shows how indigenous knowledge and Islamic ethics can be catalysts rather than obstacles to technological adaptation. This integrative approach also extends the literature on Islamic economics by operationalizing its abstract principles into concrete agricultural practices. From a practical perspective, the study offers valuable insights for policymakers, agribusiness stakeholders, and development practitioners. It recommends that sustainability interventions be designed through participatory frameworks that respect local customs and religious beliefs. Programs that align innovation with cultural rituals and *Sharia*-compliant models are more likely to gain acceptance, increase resilience, and foster long-term ecological balance (Pretty, 2008). This synthesis of tradition, faith, and innovation presents a replicable model for other Muslim-majority rural regions navigating similar development challenges.

Conclusion

This study has shown that the sustainability of agriculture in Subang, West Java, is best understood as a convergence of cultural heritage, religious ethics, and technological progress. By answering the three research questions, the analysis confirms that local wisdom expressed through rituals, social cooperation, and ecological traditions forms the foundational layer of sustainable practice. Islamic economic principles provide a moral compass that guides both production and distribution, ensuring that agricultural activity remains just, purposeful, and spiritually aligned. Meanwhile, agribusiness innovation serves as a vital enabler that enhances efficiency, broadens market access, and strengthens resilience so long as it is integrated within the socio-cultural and religious fabric

of the community. The theoretical alignment of this research confirms that sustainability cannot be reduced to ecological metrics or economic outcomes alone. Instead, it must be understood through a holistic model that honors tradition, reflects faith, and embraces modernization selectively and responsibly. The integration of frameworks from local ecological knowledge, Islamic economics, innovation diffusion, and sustainable livelihoods affirms the need for cross-disciplinary approaches in sustainability research. This synthesis offers a refined conceptual contribution to both sustainability studies and Islamic economics. Based on these findings, the study recommends that agricultural policy in Muslim-majority rural areas should not be formulated through universal technocratic models but instead through participatory strategies that involve religious scholars, community elders, and farmer cooperatives. Programs must embed spiritual and cultural values within technological systems to enhance legitimacy and adoption. Furthermore, future research should focus on comparative models across different regions and faith traditions, thereby expanding the understanding of how moral and cultural dimensions influence sustainable development trajectories in diverse agrarian societies.

References

Altieri, M. A., & Nicholls, C. I. (2017). The Adaptation and Mitigation Potential of Traditional Agriculture in a Changing Climate. *Climatic Change*, *140*(1), 33–45. https://doi.org/10.1007/s10584-013-0909-y

Amatillah, B. F. R., & Lestari, Y. D. (2021). Preserving Traditional Village as a Symbol of Devotion to Nature. *Journal of Environmental Management and Tourism*, *12*(7), 1966. https://doi.org/10.14505/jemt.v12.7(55).22

Asutay, M. (2019). Islamic Moral Economy: A Critique of Capitalism and a New Alternative. *Islamic Economics Studies*, *26*(1), 5–24. https://doi.org/10.1108/IES-01-2019-0001

Berkes, F. (2018). *Sacred Ecology* (4th ed.). Routledge.

Bowen, G. A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, *9*(2), 27–40. https://doi.org/10.3316/QRJ0902027

BPS. (2024). *Indonesian Agricultural Census 2023: Summary Report*. BPS Press.

Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bush, R., & Martiniello, G. (2017). Food Riots and Protest: Agrarian Modernizations and Structural Crises. *World Development*, *91*, 193–207. https://doi.org/10.1016/j.worlddev.2016.10.017

Chambers, R., & Conway, G. (1992). *Sustainable Rural Livelihoods: Practical Concepts for The 21st Century* (Issue 296)). Institute of Development Studies.

Creswell, J. W., & Clark, V. L. P. (2018). *Designing and Conducting Mixed Methods Research*. SAGE Publications.

Daud, M., Nurfarhana, S. W. I., Sulaiman, Z., Abdullah, S., & Redzuan, M. A. (2021). Hibah Instruments in the Islamic Financial System: Observations on Hibah Applications in Tabung Haji Institutions. *Jurnal Islam Dan Masyarakat Kontemporari*, *22*(2), 46–55. https://doi.org/10.37231/jimk.2021. 22.2.576

Denzin, N. K., & Lincoln, Y. S. (2018). *The Sage Handbook of Qualitative Research* (5th ed.). Sage.

Dusuki, A. W., & Abozaid, A. (2021). A critical appraisal of the challenges of realizing maqāṣid al-sharīʿah in Islamic banking and finance. *ISRA International Journal of Islamic Finance*, *13*(1), 35–54. https://doi.org/10.1108/IJIF-06-2020-0123

Effendy, M. (2022). Pertanian dan Budaya Lokal [Agriculture and Local Culture]. In *Studi Mapag Sri di Subang* (pp. 74–98). Pustaka Wirausaha.

Geels, F. W. (2004). From sectoral systems of innovation to socio-technical systems. *Research Policy*, *33*(6–7), 897–920. https://doi.org/10.1016/j.respol.2004.01.015

Goddek, S., & Körner, O. (2019). A fully integrated simulation model of multi-loop aquaponics: A case study for system sizing in different environments. *Agricultural Systems*, *171*, 143–154. https://doi.org/10.1016/j.agsy.2019.01.010

Gupta, S., Kangur, A., Papageorgiou, C., & Wane, A. (2014). Efficiency-Adjusted Public Capital and Growth. *World Development*, *57*, 164–178. https://doi.org/10.1016/j.worlddev.2013.11.012

Haneef, M. A., & Furqani, H. (2020). Shariah and sustainable development goals: An analytical framework. *Journal of Islamic Accounting and Business Research*, *11*(5), 889–902. https://doi.org/10.1108/JIABR-06-2019-0114

Islam, R., & Madkouri, F. El. (2018). Assessing and ranking HALMAS parks in Malaysia. *Journal of Islamic Marketing*, *9*(2), 240–261. https://doi.org/10.1108/JIMA-03-2016-0027

Ismail, F. (2022). Eksistensi Kebudayaan Islam Aceh Terhadap Keutuhan Budaya Indonesia. *Proceedings Icis 2021*, *1*(1).

Lin, J., Wang, B., Hu, X., Chen, K., & Liu, R. (2016). *Statistical Applications from Clinical Trials and Personalized Medicine to Finance and Business Analytics*. Springer International Publishing. https://doi.org/10.1007/978-3-319-42568-9

Mubarok, R., & Haryanto, A. (2023). Integrasi Prinsip Syariah dan Ekspor Pertanian dalam Koperasi Petani Digital [Integration of Sharia Principles and Agricultural Exports in Digital Farmer Cooperatives]. *Jurnal Ekonomi Syariah*, *15*(2), 112–130. https://doi.org/10.30587/jes.v15i2.2987 [In Indonesian]

Mulyadi, A., & Herlina, S. (2024). Precision farming in West Java: Smart tools, farmer clusters, and sustainable output. *Jurnal Teknologi Pertanian*, *19*(1), 33–47. https://doi.org/10.25140/jtp.v19i1.5674

Nations, U. (2023). *Sustainable Development Goals Report 2023*. United Nations Publications. https://unstats.un.org/sdgs/report/2023/

Nurkidam, A., & Mahyudin. (2023). Ada' Mappurondo Taboo: Ecological Wisdom of the Mamasa Community in Maintaining Natural Preservation. *KURIOSITAS: Media Komunikasi Sosial Dan Keagamaan*, *16*(2), 153–167. https://doi.org/10.35905/kur.v16i2.7087

Pradhan, A., Chan, C., Roul, P. K., Halbrendt, J., & Sipes, B. (2018). Potential of conservation agriculture (CA) for climate change adaptation and food security under rainfed uplands of India: A transdisciplinary approach. *Agricultural Systems*, *163*, 27–35. https://doi.org/10.1016/j.agsy.2017.01.002

Pretty, J. (2008). Agricultural sustainability: concepts, principles and evidence. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *363*(1491), 447–465. https://doi.org/10.1098/rstb.2007.2163

Raworth, K. (2017). A Doughnut for the Anthropocene: humanity's compass in the 21st century. *The Lancet Planetary Health*, *1*(2), e48–e49. https://doi.org/10.1016/S2542-5196(17)30028-1

Rohmah, S., & Wulandari, N. (2024). Ethical frameworks in Islamic agribusiness: Reviving ḥisbah as rural governance. *Jurnal Ilmu Ekonomi Syariah*, *12*(1), 91–108. https://doi.org/10.20885/jies.vol12.iss1.art5

Schall, D., Lansing, D., Leisnham, P., Shirmohammadi, A., Montas, H., & Hutson, T. (2018). Understanding stakeholder perspectives on agricultural best management practices and environmental change in the Chesapeake Bay: A Q methodology study. *Journal of Rural Studies*, *60*, 21–31. https://doi.org/10.1016/j.jrurstud.2018.03.003

Schwab, B., & Armah, R. (2019). Can food safety shortfalls disrupt 'Ag for Nutrition' gains? Evidence from Eid al-Adha. *Food Policy*, *83*, 170–179. https://doi.org/10.1016/j.foodpol.2019.01.002

Sousa, T., Brockway, P. E., Cullen, J. M., Henriques, S. T., Miller, J., Serrenho, A. C., & Domingos, T. (2017). The Need for Robust, Consistent Methods in Societal Exergy Accounting.

Ecological Economics, *141*, 11–21. https://doi.org/10.1016/j.ecolecon.2017.05.020

Srivastava, K., & Kumar, A. (2023). The Impact of Road Side Friction on the Traffic Flow of Arterial Roads in Varanasi. *Engineering, Technology & Applied Science Research*, *13*(4), 11157–11165.

Sulistyo, A., & Ismarti. (2022). Urgensi dan Strategi Penguatan Literasi Media dan Digital dalam Pembelajaran Agama Islam. *At Turots: Jurnal Pendidikan Islam*, *3*(2), 51–61.

Supriatna, Y. (2023). *Kearifan Lokal dan Konservasi: Praktik Ekologis Masyarakat Subang [Local Wisdom and Conservation: Ecological Practices of the Subang Community]*. LIPI Press.

Vu, K. M., & Asongu, S. (2020). Backwardness advantage and economic growth in the information age: A cross-country empirical study. *Technological Forecasting and Social Change*, *159*, 120197. https://doi.org/10.1016/j.techfore.2020.120197

Wang, S., Leviston, Z., Hurlstone, M., Lawrence, C., & Walker, I. (2018). Emotions predict policy support: Why it matters how people feel about climate change. *Global Environmental Change*, *50*, 25–40. https://doi.org/10.1016/j.gloenvcha.2018.03.002

Yin, K. R. (2018). *Case Study Research and Applications: Design and Methods* (6th ed.). Sage Publications.

Yusron, M. A. (2022). Memahami Tafsir dan Urgensinya [Understanding Interpretation and Its Urgency]. *ZAD Al-Mufassirin*, *4*(1), 61–81. https://doi.org/10.55759/zam.v4i1.35 [In Indonesian]