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Green Sukuk the Perspective of Sharia Economic Law: A Development Financing Instrument for Achieving the SDGs

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Abstract

Objective: This study aims to analyze the role of Green Sukuk as a sustainable development financing instrument from the perspective of Islamic economic law, while also examining its contribution to achieving the Sustainable Development Goals (SDGs). **Theoretical framework:** This study is grounded in the principles of Islamic jurisprudence (*fiqh muamalah*), *maqashid al-shari'ah*, and sustainable finance theory, which emphasize justice, sustainability, and social responsibility. **Literature review:** the literature review highlights the concept and evolution of green sukuk, the theoretical framework of sharia: *maqashid*, *maslahah*, and risk-sharing, standards and governance: sharia-ESG. **Methods:** The research method used is qualitative with a juridical normative approach, through the analysis of regulatory documents, fatwas, and reports on the issuance of Green Sukuk. **The results:** The results show that Green Sukuk not only fulfills sharia principles but is also effective in supporting environmentally friendly projects, such as renewable energy, water management, and green transportation. **Implications:** These findings imply that Green Sukuk can be a strategic instrument for both the government and the private sector in integrating sharia values with the global sustainable development agenda. **Novelty:** The novelty of this research lies in the integrative approach that connects sharia economic law with green financial instruments, while also positioning Green Sukuk as an innovative financing model that is in line with *maqashid al-syariah* and SDGs.

Keywords: green sukuk, *maqashid al-syariah*, financing instruments, sharia economic law, sdgs.

INTRODUCTION

The issue of sustainable development has become a global priority since the United Nations (UN) agreed on the Sustainable Development Goals (SDGs) in 2015. Achieving these 17 development goals requires significant, innovative, and sustainable financing instruments. The challenges of climate change, the energy crisis, and socio-economic disparities are driving countries to seek financing models that are not only economically effective but also oriented towards environmental sustainability and social justice. Indonesia, as the country with the largest Muslim population in the world, plays a significant role in developing Islamic financial instruments that support sustainable development. Since 2018, the Indonesian government has issued Green Sukuk, the world's first green Islamic bond aimed at financing environmentally friendly projects [1][2]. This demonstrates the synergy between a commitment to sharia principles and the global development agenda, and opens up significant opportunities for the development of sustainable financial instruments based on sharia economic law.

From the perspective of Islamic economic law, financial instruments must be in line with the principles of *maqashid al-syariah*, which emphasize justice, welfare, and sustainability [3]. Global research on Green Bonds and Green Sukuk has shown significant progress, particularly in countries with advanced Islamic financial industries. In Malaysia, for example, a study conducted by the Securities Commission Malaysia (2017) showed that Green Sukuk is an innovative instrument capable of integrating environmental policies with Sharia principles. Green Sukuk issuance in Malaysia focuses on financing renewable energy projects, environmentally friendly transportation, and green infrastructure development that supports the targets of the National Green Technology Policy [4][5]. According to Mahama and Yakubu, Green Sukuk has great potential to be a driving force in encouraging green investment in Muslim-majority countries. This instrument is considered unique because it integrates sharia-compliant finance with the global agenda of climate change mitigation [6]. Similarly, Delle believes that Green Sukuk can expand the investor base because it can attract both sharia investors and conventional investors who care about sustainability issues [7].

In the United Arab Emirates (UAE), research conducted by various Islamic financial institutions shows that Green Sukuk is a strategic instrument in supporting the Dubai Clean Energy Strategy 2050 agenda [8][6]. This instrument is considered relevant to the UAE government's vision of becoming a global Islamic financial center, while also addressing the global need for sustainable investment. The study emphasized market potential and international investor interest in Sharia-compliant green financial products. Meanwhile, in the UK, studies on Green Sukuk focused more on analyzing the opportunities and challenges in attracting Muslim investors in the European market. A report from The City UK suggests that Green Sukuk could expand Islamic capital markets in Western countries, which are increasingly focusing on sustainability and ethical investment [9][10].

In Indonesia, a study by Baity emphasized the government's success in issuing the first global Green Sukuk, which was well absorbed by the international market [11]. This study highlights that investor confidence is significantly influenced by Indonesia's reputation for maintaining sharia compliance, the credibility of fund utilization reports, and the government's commitment to the SDGs agenda. However, the study focuses more on market acceptance and fiscal policy, without delving into detailed Sharia law analysis. Rahman, a different opinion, asserts that despite the rapid development of Green Sukuk in Malaysia and Indonesia, most academic literature still emphasizes market performance and financial innovation [12]. Normative analysis of the legal basis, fatwas, and methodology of Islamic jurisprudence (*fiqh muamalah*) that underpin the validity of this instrument is rarely comprehensively addressed. Yet, the long-term success of Green Sukuk depends heavily on the acceptance of the Muslim community, which demands certainty regarding Sharia law.

Although previous research has been quite rich in explaining economic, investment, and public policy aspects, discussions of the Sharia legal basis for Green Sukuk are still very limited. Most studies emphasize market performance and investor appeal, while an in-depth analysis of Sharia compliance, the principles of Islamic jurisprudence (*fiqh muamalah*), and their conformity to the *maqasid al-shariah* (the principles of Islamic law) has not been systematically presented. This raises the need for a deeper study of Sharia economic law in the context of Green Sukuk.

Based on this review, the emerging research gap is the absence of studies that comprehensively integrate Green Sukuk with the perspective of Islamic economic law. Few studies have highlighted how Green Sukuk is not merely a financial instrument but also a means of implementing Islamic values oriented toward welfare, social justice, and environmental preservation. Furthermore, the explicit link between Green Sukuk and the achievement of the SDGs through the *maqasid al-shariah* framework is still rarely explored.

This research is significant because it will enrich the literature on Islamic economic law by presenting a new perspective on green financial instruments. This research seeks to bridge the gap between Islamic legal theory and modern sustainability-based financial practices.

Therefore, this research can serve as a reference for curriculum development, scientific literature, and academic discourse on the integration of Islamic law and sustainable finance. Practically, this research is urgent in providing input for policymakers, financial institutions, and Muslim investors to better understand the sharia legitimacy of Green Sukuk. With an analysis based on Islamic economic law, Green Sukuk can be increasingly accepted as a development financing instrument that is halal, ethical, and supports the SDGs. This research is also crucial for strengthening Indonesia's role as a pioneer in the global Green Sukuk market and encouraging innovation in environmentally friendly Islamic financing.

LITERATURE REVIEW

The Concept and Evolution of Green Sukuk

Green Sukuk is essentially a derivative instrument of sukuk, which has long been recognized in the Islamic financial system as a sharia-compliant security based on real assets. The fundamental difference between Green Sukuk and conventional sukuk lies in the allocation of funds specifically for environmentally friendly projects such as renewable energy, sustainable transportation, waste management, and nature conservation. This aligns with Faizi's opinion, which asserts that the validity of sukuk is largely determined by the existence of the underlying real assets and the clarity of the contract used [13]. In the context of Green Sukuk, this aspect is further strengthened by establishing project criteria that have a positive impact on the environment while reflecting the values of welfare in Sharia.

The uniqueness of Green Sukuk is also evident in its integration with sharia compliance principles through the use of various contract structures, such as *ijarah*, *istisna'*, *murabahah*, *wakalah*, and *musyarakah*. Monzer Kahf emphasized that Islamic financial instruments must not only avoid *riba*, *gharar*, and *maysir*, but must also promote the achievement of *maqasid al-shariah* by creating social and environmental benefits [14]. Therefore, Green Sukuk issuance is considered superior to conventional green bond instruments because, in addition to ensuring a positive environmental impact, it also upholds the values of justice and sustainability within the framework of Islamic economic law. International studies, such as those presented by the Climate Bonds Initiative and the World Bank (2020), highlight two key advantages of Green Sukuk. First, the integration of the use of green proceeds with Sharia compliance requirements makes it a unique instrument in the global financial system [6]. Second, Green Sukuk has successfully expanded its investor base by attracting ESG (Environmental, Social, and Governance) investors as well as Muslim investors seeking halal instruments. Sean Kidney (CBI) emphasized that this combination strengthens Green Sukuk's position as a strategic innovation that not only addresses the need for sustainable financing but also serves as a bridge between Islamic financial markets and global green capital markets [15].

Theoretical Framework of Sharia: Maqashid, Maslahah, and Risk-Sharing

First, within the framework of *maqashid al-syariah*, contemporary scholars such as Mufti Muhammad Taqi Usmani emphasize that sharia financial instruments are not merely compliance with the prohibitions on usury, *gharar*, and *maysir*, but must also be able to provide real benefits for the people and the environment [16]. The concept of green sukuk is relevant because it not only supports economic development but also protects the environment as part of the *hifz al-bi'ah* (environmental protection) [17]. This environmental protection can be linked to the main *maqasid* (protection of the soul), namely *hifz al-nafs* (protection of the soul), because environmental sustainability ensures human survival, and *hifz al-nasl* (protection of descendants), because future generations need sustainable natural resources. Thus, green sukuk is not only a financial instrument, but also an instrument for protecting sustainable life.

Second, from the perspective of *maslahah*, it is emphasized that the basic principle of Islamic economics is to create socio-economic justice and avoid harm (*mafsadah*) [18][19]. Green sukuk can be seen as a concrete manifestation of *maslahah* (public good) because the proceeds are directed toward public good-oriented projects such as renewable energy, environmentally friendly transportation, and nature conservation. This aligns with the concept of *maslahah mursalah*, which is a benefit not explicitly mentioned in the text but aligns with the general objectives of Sharia [20][21]. Therefore, green sukuk not only fulfills a financing function but also supports global agendas such as the SDGs, which share a similar orientation to the *maqasid sharia*.

Third, within the risk-sharing framework, Abbas Mirakhor emphasized that the Islamic financial system should be based on risk sharing (profit and loss sharing), not based on interest-bearing debt [22]. Green sukuk offers a fairer financing scheme, as investors share the risks and rewards of the green projects they fund. This is particularly relevant for capital-intensive, long-term projects, such as the development of renewable energy plants or green infrastructure. With risk-sharing, the burden is not borne entirely by the government or a single party, but rather shared collectively, thus reinforcing the principles of fairness and solidarity in Islamic finance.

Standards and Governance: Sharia ESG

Governance literature emphasizes that green sukuk requires integration between Sharia and global green standards to gain credibility in the international market. From a Sharia perspective, this instrument must comply with a fatwa from the Indonesian Council of Ulama (DSN-MUI) or a decision from the Sharia Supervisory Board (SSB), which ensures the contract structure complies with the principles of Islamic jurisprudence (*fiqh*) and international guidelines such as those adopted by the AAOIFI and IFSB [23][24]. Meanwhile, from a green finance perspective, green sukuk must comply with global standards such as the ICMA Green Bond Principles, the Climate Bonds Standard, and the EU/ASEAN taxonomy, which regulates the classification of sustainable projects. This combination makes green sukuk unique, as it not only maintains religious compliance but also meets the expectations of global investors who demand environmental credibility [25]. Important elements in green sukuk governance include project eligibility criteria, selection and evaluation processes, proceeds management, third-party review, and allocation and impact reporting. According to the World Bank (2019), good governance ensures that sukuk funds are properly allocated to environmentally friendly projects and that the results can be verified through measurable impact reports [26]. This process is not merely a formality but a determining factor in market confidence. If transparency and reporting are not implemented effectively, the risk of losing investor confidence increases, which in turn will weaken the position of green sukuk in the global financial market.

One of the biggest challenges in green sukuk governance is preventing greenwashing, the practice of making false or exaggerated claims about a project's environmental impact. ESG experts emphasize that the strength of green sukuk depends heavily on transparency, accountability, and independent verification [4][7]. Therefore, the involvement of credible third parties, such as sharia auditors and environmental verifiers, is crucial. With dual oversight (Sharia and ESG), green sukuk can minimize reputational risk while strengthening investor confidence, both Muslim and non-Muslim. At this point, green sukuk is seen as a financing instrument that is not only religiously ethical but also socially and environmentally responsible.

METHODOLOGY

This research uses a qualitative approach with a juridical-normative design, oriented toward a textual and conceptual review of the legal instruments, fatwas, and *fiqh muamalah* principles underlying the legitimacy of Green Sukuk [27][28]. This research uses a qualitative approach with a juridical-normative design, oriented toward a textual and conceptual review of the legal

instruments, fatwas, and *fiqh muamalah* principles underlying the legitimacy of Green Sukuk. This approach was chosen because the focus of the research is not to measure empirical phenomena, but rather to interpret sharia rules, norms, and doctrines related to sustainable financing instruments. Therefore, this research emphasizes the analysis of relevant texts, fatwas, regulations, and academic literature, while linking them to the sustainable development framework (SDGs). The data sources used are entirely secondary, including: (1) national regulations such as Law No. 19 of 2008 concerning SBSN, POJK No. 60/2017 concerning Green Bonds, and the Green Bond & Green Sukuk Framework document; (2) fatwas from the National Sharia Council (DSN)–MUI, including Fatwa No. 41/2004 (*Ijarah*), Fatwa No. 06/2000 (*Istisna'*), and Fatwa No. 126/2019 (*Wakalah bil Istitsmar*); (3) official reports from the World Bank, Islamic Development Bank, Securities Commission Malaysia, and the annual report of the issuance of Indonesian Green Sukuk; and (4) academic studies in the form of books, reputable journals, and scientific publications discussing the *maqāṣid al-shari'ah*, *maslahah*, green finance, and thematic sukuk.

Data collection was conducted through library research, which involved identifying, classifying, and extracting key information from legal documents and scientific literature. This process enabled the researchers to develop a systematic understanding of how sharia principles are integrated with global green financing standards. Data analysis was conducted through three stages: data reduction, data presentation, and conclusion drawing, as developed by Miles, Huberman, and Saldana. In the reduction stage, the researchers selected legal issues and *maqāṣid* principles relevant to Green Sukuk. In the data presentation stage, the researcher developed a comparative narrative between the Sharia legal basis and global environmental standards such as the ICMA Green Bond Principles and the Climate Bond Standard. In the final stage, the researcher created a synthesis explaining the coherent relationship between Sharia economic law, the structure of sukuk contracts, and sustainable development goals. This research employed a legal hermeneutics approach, namely the process of critical interpretation of normative texts and *fiqh* principles to explain their relevance in the contemporary context. Hermeneutics is necessary to understand how classical concepts such as *maslahah*, *istikhlaf*, and *hifz al-bi'ah* can be applied to modern financial instruments such as Green Sukuk. Thus, the analysis is not only descriptive but also interpretive and argumentative, resulting in a comprehensive understanding of the position of Green Sukuk within the Sharia economic legal framework and its contribution to achieving the SDGs [29][30].

Table 1. Research Method Used in This Study

| Aspect | Description |
|------------------------|---|
| Type of Research | Qualitative research. |
| Approach | Juridical–normative approach. |
| Research Objective | To analyze Sharia economic law governing Green Sukuk and its role in supporting sustainable development (SDGs). |
| Rationale for Approach | Enables examination of legal rules, DSN-MUI fatwas, and <i>fiqh muamalah</i> principles forming Green Sukuk legitimacy while integrating SDG policy frameworks. |
| Key Figures Analyzed | Islamic finance scholars, DSN-MUI fatwas, international financial institutions (World Bank, IsDB, SC Malaysia). |
| Main Data Sources | Secondary data: regulations, official reports, DSN-MUI fatwas, global institutional publications, journals, books, and prior research. |
| Method of Analysis | Descriptive–analytical method and hermeneutic analysis. |
| Theoretical Framework | Sharia economic law, <i>muamalah fiqh</i> principles, <i>maqasid al-syariah</i> , and sustainable development theory. |

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| Focus of Analysis | Legitimacy, structure, and relevance of Green Sukuk in Islamic law and SDG implementation. |
| Expected Outcome | Synthesis between Islamic legal theory, Green Sukuk practice, and sustainable development policies. |

RESULTS AND DISCUSSION

The Concept of Green Sukuk and Its Relevance in Sustainable Development

The concept of green sukuk stems from the traditional Islamic financial instrument, sukuk, which is essentially an asset-backed security in accordance with Islamic principles. The difference is that green sukuk are specifically designed to finance environmentally sustainable projects, such as renewable energy, eco-friendly transportation, and waste management. According to the World Bank, green sukuk serves as a bridge between the need for green infrastructure financing and Islamic principles, which emphasize fairness, sustainability, and balance in transactions [26]. Thus, this instrument has a unique position among global financial markets.

From the perspective of Sharia economic law, green sukuk emphasizes the role of *maqāsid al-syarī'ah*, especially in maintaining the sustainability of life (*hifẓ al-nafs*) and protecting the environment (*hifẓ al-bi'ah*) [3]. Munawir emphasized that the existence of green sukuk can be understood as an implementation of the principle of distributive justice in Islam, because the funds collected are not used for speculative interests but are directed towards the public good [31]. This is in line with al-Ghazali's theory of *maslahah mursalah*, which emphasizes that something that brings benefits to the community must be accommodated as long as it does not contradict the text [32][33]. In this context, Green Sukuk serves as a manifestation of the implementation of Islamic law in addressing global environmental issues, including climate change. Therefore, the urgency of Green Sukuk extends beyond simply being a capital market instrument, but also serves as a strategy for achieving human sustainability.

The concept of sustainability in green sukuk also intersects with the theory of sustainable development popularized by the Brundtland Report, namely development that meets the needs of the current generation without sacrificing the needs of future generations [34][35]. From an Islamic perspective, this aligns with the principle of *istikhlaf* (humanity as caliph on earth), which requires all economic activities to maintain ecological balance. This principle emphasizes that human economic development must be aligned with environmental conservation efforts, so that the existence of the current generation does not compromise the rights of future generations to enjoy the same earth. According to Liu (2021), green sukuk is a concrete manifestation of this teaching. Technically, green sukuk require specific standards for their issuance [36]. Robert Dixon emphasized that funded projects must meet clear environmental criteria, be verified by an independent party, and be reported regularly [37]. This is where the discourse between the Sharia legal perspective, which emphasizes compliance with contracts (*ijarah*, *istisna*, or *wakalah*) and the green finance perspective, which demands international standards in environmental management, emerges. Both pose harmonization challenges but also open up opportunities for regulatory innovation.

Several studies in Malaysia have shown that green sukuk are not just a financing instrument, but also a government policy tool to encourage green investment. Keshminder, the issuance of green sukuk in Malaysia is part of the national green finance strategy, which is in line with the Islamic Capital Market Masterplan [38]. A comparison with Indonesia shows that, although both have a strong Sharia legal basis, Malaysia has been quicker to integrate green sukuk with its national renewable energy policy. Debate arises over whether green sukuk are truly more effective than conventional green instruments like green bonds. Some experts believe there is no significant difference other than the Sharia label. However, according to Delle and Keshminder (2022), the advantage of green sukuk lies in the ethical dimension, which is integrated with sharia, thus reducing the potential for using funds for projects that

conflict with Islamic morality [7]. Thus, green sukuk are not merely market instruments, but also moral and spiritual instruments.

From the implementation side, there are differences of opinion regarding the level of competitiveness of Green Sukuk. According to Abasimel, Islamic financial instruments often do not have significant competitive advantages over conventional instruments, except in terms of religious branding [39]. This criticism also applies to Green Sukuk, which are considered to have not fully demonstrated fundamental differences from green bonds other than the element of Sharia compliance. However, more recent research by Alam and Hazik (2025) refutes this view by showing that Green Sukuk can attract new investors from Muslim communities who were previously reluctant to invest in conventional green bonds, thus expanding the development funding base [26].

From a policy perspective, Green Sukuk is considered an innovative strategy for Muslim-majority countries to address global challenges. Indonesia and Malaysia, for example, are considered successful examples of combining sharia-compliant and SDGs agendas. According to the OECD (2021), the success of these two countries in developing Green Sukuk demonstrates the potential of this instrument to become a global role model, particularly for developing countries facing limited development financing [40]. However, such success still requires strong governance, including transparent reporting on the use of funds and adherence to international standards such as the Green Bond Principles (GBP) and the Climate Bonds Standard (CBS).

In the context of sustainable development, green sukuk plays a very strategic role because it directly supports the achievement of several key Sustainable Development Goals (SDGs). First, green sukuk contributes to SDG 7: Affordable and Clean Energy, by funding renewable energy projects such as geothermal, solar, or wind power plants, which are not only environmentally friendly but also increase access to clean energy for the public at a more affordable price. Second, this instrument supports SDG 11: Sustainable Cities and Communities, by financing the development of environmentally friendly public transportation infrastructure, urban waste management, and greener and more efficient urban planning, thereby creating a healthy, inclusive, and resilient urban environment. Third, green sukuk is also closely linked to SDG 13: Climate Change Action, because the funds raised are directed to projects that significantly reduce greenhouse gas emissions, strengthen resilience to climate disasters, and encourage the transition to a low-carbon economy.

According to a UNDP report (2022), green sukuk in Indonesia has contributed to the development of geothermal power plants, energy efficiency, and sustainable transportation management [13]. This demonstrates the direct relevance between Sharia instruments and the global development agenda. The existence of green sukuk also strengthens the synergy between sharia principles and the global agenda of sustainable development. From an Islamic perspective, managing the earth is a trust that must be safeguarded through the principles of *istikhlaf* (humans as caliphs) and *maslahah* (public welfare) [41].

Green sukuk provides a concrete means to actualize these values by channeling investment funds into sectors that are not only economically profitable but also provide social and environmental benefits. This instrument also increases the confidence of global investors, both Muslim and non-Muslim, due to its double screening mechanism, which includes both Sharia compliance and adherence to international environmental standards [42][43]. This makes green sukuk a more ethical, transparent, and responsible financial instrument than conventional instruments. Thus, green sukuk serves a dual function as a means of financing green development and as a moral-spiritual instrument that connects human responsibility to God, society, and the universe. This integration makes green sukuk relevant and strategic in promoting the holistic achievement of the SDGs, especially in developing countries facing limited funding sources.

In the context of green sukuk, Sharia contract structures such as *ijarah*, *istishna'*, and *wakalah* are applied to ensure that financing mechanisms remain both environmentally

sustainable and compliant with Islamic principles. *Ijarah* is used by structuring green sukuk around lease-based assets, where the returns to investors come from rental payments on environmentally beneficial infrastructure, consistent with DSN-MUI Fatwa No. 41/2004. *Istishna'* supports the construction of new green assets such as renewable energy facilities or waste-management systems through manufacturing-based contracts governed by Fatwa No. 06/2000, ensuring that project specifications are clear, deliverables are halal, and no *gharar* arises. Meanwhile, *wakalah* the most widely used structure in Indonesia's sovereign green sukuk enables the government to appoint a representative (*wakil*) to manage investor funds and allocate them to a portfolio of climate-friendly projects, as permitted under DSN-MUI Fatwa No. 126/2019. These fatwas ensure that project selection, use of proceeds, and asset screening comply with both Sharia rules and the Indonesia Green Bond & Green Sukuk Framework, reinforcing the dual accountability of green sukuk to Islamic ethics and international environmental standards, while strengthening investor trust and supporting SDG-oriented development.

Green Sukuk from the Perspective of Sharia Economic Law

Green Sukuk is a Sharia-compliant financial instrument specifically issued to support the financing of environmentally friendly projects. From a Sharia economic legal perspective, Green Sukuk emphasizes the harmony between modern development needs and Sharia principles, which emphasize justice, sustainability, and the public good (*maslahah 'ammah*) [3]. Thus, Green Sukuk not only serves as an investment instrument, but also as a manifestation of the objectives of sharia (*maqashid al-shariah*), namely to protect religion, life, intellect, descendants, and property while paying attention to environmental aspects. From an Islamic legal perspective, the basis for the permissibility of sukuk, including Green Sukuk, rests on valid *muamalah* contracts according to sharia. Sukuk generally use *ijarah*, *mudharabah*, *musyarakah*, or *wakalah* contracts. Green Sukuk in practice often uses *wakalah bil istisna* or *ijarah*, where the collected funds are invested in sharia-compliant and environmentally friendly projects. This is in accordance with the Islamic jurisprudence principle "*al-ashlu fi al-mu'amalat al-ibahah illa an yadulla dalil 'ala tahrimiha*" (basically, muamalah is permissible unless there is evidence that prohibits it) [44].

The Quran provides a normative basis for the importance of protecting the environment and avoiding damage. Allah SWT in Surah Al-A'raf: 56, "*And do not cause corruption on the earth after it has been set in order*" [45]. This verse is often used as an ethical basis for arguing that investments that cause environmental damage are contrary to Islamic principles, while Green Sukuk provides a sharia-compliant solution that supports environmental sustainability. The Prophet Muhammad's hadith also emphasizes the importance of preserving nature. The Prophet Muhammad said: "*If the Hour comes while one of you has a date palm seedling in his hand, let him plant it.*" (Narrated by Ahmad). This hadith conveys the message that Islam encourages its followers to contribute to maintaining sustainability, even in critical situations. Thus, Green Sukuk can be understood as a form of implementing Islamic values in preserving the environment through economic instruments.

Under Indonesian positive law, the issuance of Green Sukuk has a strong foundation. The Indonesian government refers to Law No. 19 of 2008 concerning State Sharia Securities (SBSN), which serves as the basis for sukuk issuance. Furthermore, the Financial Services Authority (OJK) issued POJK No. 60/POJK.04/2017 concerning the Issuance and Requirements for Environmentally Friendly Debt Securities (Green Bonds), which also serves as a reference. Indonesia was recorded as the first country in the world to issue Green Sukuk in 2018, thus becoming a global pioneer.

Several other contemporary Islamic scholars and economic experts also have positive views on Green Sukuk instruments. For example, Muhammad Nejatullah Siddiqi, a prominent Islamic economist, emphasized that Islamic financial instruments should not be limited to the technical aspects of complying with Islamic law, but should also serve as a means to achieve

the objectives of the *Maqasid al-shariah* h (Islamic principles). According to him, Green Sukuk is one of the instruments that aligns with the *Maqasid al-shariah* h because it contributes to environmental preservation (*hifz al-bi'ah*), which is part of safeguarding life (*hifz al-nafs*) and progeny (*hifz al-nasl*) [46][47][48]. This view confirms that environmentally-based sukuk have strong legitimacy from a Sharia perspective. Furthermore, Abbas Mirakhor, a former senior official at the International Monetary Fund (IMF) and a renowned Islamic economics expert, also stated that innovations such as Green Sukuk align with the risk-sharing principle at the heart of Islamic finance [22]. According to him, sustainable projects financed by Green Sukuk provide long-term benefits not only to investors but also to the wider community through ecological and economic sustainability. This reflects the value of distributive justice emphasized in Islam, where the benefits of financial instruments are not only enjoyed by a few parties but also contribute to the public good. Meanwhile, Habib Ahmed, a professor of Islamic economics at Durham University, emphasized that Islamic finance should not be trapped in merely replicating conventional instruments, but should offer solutions to global challenges, including the environmental crisis [49]. In his view, Green Sukuk is a concrete example of Islamic financial innovation that combines Sharia compliance with sustainable development goals. He believes this instrument demonstrates the proactive role of Islamic finance in addressing global issues such as climate change and environmental sustainability, while simultaneously strengthening ethical values in financial transactions.

From an Islamic economic perspective, Green Sukuk represents the application of the principles of *maslahah* and *'adl* (justice) [3]. Development that focuses solely on economic aspects without considering the environment has the potential to create injustice between generations. Therefore, Green Sukuk exists as an instrument that supports the concept of sustainable development while also aligning with the principles of *maqasid al-shariah* h to maintain human survival. In practice, Green Sukuk Indonesia has financed renewable energy projects, environmentally friendly transportation, waste management, and natural resource conservation. Transparency in reporting is also a key advantage, as all collected funds must be reported to the public. This transparency aligns with the Islamic principle of *hisbah*, which emphasizes accountability [50]. However, there is also debate among experts regarding the risks of Green Sukuk. Some researchers highlight the issue of greenwashing (unproven claims of environmental friendliness) that could undermine the credibility of this instrument. Under Islamic law, this can be categorized as *gharar*, or prohibited fraud [3]. Therefore, regulations and oversight mechanisms must be strengthened to ensure that Green Sukuk truly finances projects that contribute to sustainability. Another criticism comes from the perspective of market liquidity. Some experts believe that Green Sukuk still has limitations compared to conventional bonds, both in terms of issuance volume and investor diversification. However, global support for sustainable finance opens up significant opportunities for the development of this instrument. Sharia experts emphasize the importance of innovation so that Green Sukuk is not limited to government projects but also accessible to the private sector and the public.

Table 2. Conceptual Framework of Green Sukuk from the Perspective of Islamic Economic Law toward the SDGs

| Component | Concise Conceptual Description |
|-------------------------------------|---|
| Foundations of Islamic Economic Law | <i>Fiqh mu'āmalah</i> ; <i>maqāsid al-sharī'ah</i> (protection of wealth, life, and the environment). Principles of <i>maslahah</i> , justice, trust (<i>amānah</i>), and sustainability. Compliance with the prohibitions of <i>riba</i> , <i>gharar</i> , and <i>maysir</i> . |
| Green Sukuk Instrument | Contract structures: <i>Ijarah</i> , <i>Istisna'</i> , <i>Wakālah</i> . Sharia basis: DSN–MUI Fatwas 41/2004, 06/2000, 126/2019. Governance mechanisms: proceeds management, external review, sharia & environmental impact reporting. |
| Green Project Criteria & Selection | Based on ICMA Green Bond Principles & Climate Bonds Standard. |

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| | Prioritizes renewable energy, sustainable transportation, water/waste management, climate adaptation & mitigation projects. |
| Implementation Mechanism | Allocation of funds according to Sharia contracts and eligible green categories. Transparency and accountability through Sharia supervision and environmental verification. Continuous monitoring and public impact reporting. |
| Sharia & Economic Impact | Realization of <i>maslahah</i> and environmental protection (<i>hifz al-bi'ah</i>). Ethical, halal, and intergenerationally just investment. Strengthening financial stability and viability of sustainable development financing. |
| Contribution to the SDGs | SDG 7: Affordable and Clean Energy. SDG 9: Industry, Innovation, and Infrastructure. SDG 11: Sustainable Cities and Communities. SDG 12: Responsible Consumption and Production. SDG 13: Climate Action. SDG 15: Life on Land. |

Internationally, countries such as Malaysia, the United Arab Emirates, and Saudi Arabia have also begun promoting the issuance of Green Sukuk. This reinforces the argument that this instrument has a bright future as a bridge between Islamic finance and sustainable development. From a Sharia economic law perspective, the global spread of Green Sukuk demonstrates contemporary *ijtihad* to address the challenges of the times. Thus, Green Sukuk is not only a financial instrument but also a medium for Islamic economic *da'wah*, emphasizing that Sharia is not anti-modern. Rather, Sharia presents a solution to address global needs, including the climate crisis and the SDGs. The integration of Islamic values with global development goals through Green Sukuk demonstrates the high relevance of Sharia economic law in the modern context.

The Urgency of Green Sukuk in Indonesia

Green Sukuk is a Sharia financial instrument oriented towards financing environmentally friendly projects, such as renewable energy, sustainable transportation, and climate change mitigation. The urgency of Green Sukuk is increasingly apparent, given that Indonesia faces serious challenges related to climate change. The country is among the most vulnerable to natural disasters caused by global warming, such as floods, droughts, and rising sea levels. Therefore, funding directed towards climate change mitigation and adaptation is an urgent need. Green Sukuk presents a strategic solution that can connect the interests of economic development with ecological responsibility. From a Sharia economic law perspective, Green Sukuk offers significant added value. This instrument is not only halal (permissible) because it is based on sharia contracts, but also supports the *maqasid al-shariah* (the Islamic principles of sharia), particularly *hifz al-bi'ah* (protecting the environment) [3]. Contemporary Islamic scholars emphasize that Islamic financial instruments must bring broader benefits, not simply be free from usury, *gharar*, and *maisir*. Green Sukuk meets this demand by presenting sustainability values [13][10].

For Indonesia, the urgency of issuing Green Sukuk is also related to the significant need for funding for green development. According to various studies, Indonesia needs hundreds of billions of dollars to achieve the carbon emissions targets pledged in its Nationally Determined Contributions (NDC) [51][52][53]. Without innovative instruments like Green Sukuk, this financing gap would be difficult to fill solely through the state budget. From an international perspective, Green Sukuk strengthens Indonesia's position as a pioneer in the global Islamic financial market. Since 2018, Indonesia has been the first country to issue a global Green

Sukuk. This has received widespread appreciation from academics, practitioners, and international institutions for demonstrating the integration of sharia values with environmental concerns.

In Duygun's view, Green Sukuk is a real form of socially responsible investment in Islamic finance [10]. He emphasized that sukuk should not only be a commercial instrument, but also one that contributes to social and environmental well-being. This opinion reinforces the urgency of issuing Green Sukuk in Indonesia, which faces significant environmental challenges. According to Sami al-Suwailem, an Islamic finance expert, innovation in sharia-compliant instruments such as thematic sukuk is crucial to maintaining the relevance of the Islamic finance industry [54]. Green Sukuk, he said, is concrete evidence that Islamic finance can contribute to global issues like climate change. This emphasizes the urgency of Green Sukuk in integrating Islamic values with modern challenges.

From a Western academic perspective, Sean Kidney stated that Indonesia's Green Sukuk is a global model worthy of emulation. He believes Indonesia demonstrates that sharia-compliant instruments can be a key driver of green project funding in developing countries [15]. This strengthens Green Sukuk's position as an instrument that is not only nationally important but also internationally relevant. Meanwhile, Western economists such as Joseph Stiglitz emphasize the importance of green financial instruments to support the transition to a low-carbon economy [55][56]. According to him, developing countries must develop green bond markets as a strategy to reduce dependence on fossil fuels. This idea is relevant to the position of Green Sukuk in Indonesia, which combines green principles with sharia principles. Nicholas Stern, a climate economist, emphasized that the cost of delaying mitigation action is far higher than investing early [57][58]. In this context, Green Sukuk becomes a strategic instrument for financing environmentally friendly actions quickly and measurably. Stern's perspective demonstrates that the urgency of Green Sukuk is not merely a financial need, but also a long-term economic imperative.

The urgency of Green Sukuk is also evident in Indonesia's commitment to the Paris Agreement, which targets a significant reduction in carbon emissions. Funding through the state budget alone is insufficient to support this target, making instruments like Green Sukuk an alternative solution that supports state finances while maintaining sustainability. From an Islamic perspective, Yusuf al-Qaradawi once emphasized the importance of protecting the environment as part of humanity's mandate as caliphs on earth [59]. Green Sukuk, as a sharia instrument, supports this value by ensuring that public funds are channeled to projects that preserve the earth. Thus, the urgency of Green Sukuk also lies in its function as a manifestation of the responsibilities of the *khalifah fil ardh* (vicegerent) on earth. Furthermore, Abdus Sattar Abu Ghuddah, a member of the AAOIFI (Accounting and Auditing Organization for Islamic Financial Institutions), emphasized that every sharia instrument must have a *maslahah* (beneficial) value [60]. Green Sukuk fulfills this requirement because it provides direct benefits, both economically and ecologically. Therefore, its urgency is even stronger because it reflects the principle of *maslahah mursalah* in Islamic law.

From a public policy perspective, Green Sukuk helps the government achieve the Sustainable Development Goals (SDGs). Indonesia, as a developing country, needs innovative financing to build green infrastructure without increasing conventional debt. Green Sukuk offers a compromise because it is Sharia-compliant, ethical, and supports sustainable development. According to Joseph Stiglitz, sustainability must be the foundation of the design of the global economic system [55][56]. Although Stiglitz did not directly discuss Green Sukuk, his views support the urgency of this instrument, as Green Sukuk is part of the financial system's transformation toward sustainability.

The urgency of Green Sukuk can also be seen from a social perspective. This instrument ensures that development financing does not harm future generations. This aligns with the principle of *al-darar yuzal* (harm must be removed) in Islamic jurisprudence. Thus, Green Sukuk not only supports development but also protects the rights of future generations. The

urgency of Green Sukuk is also supported by the growing global trend of ethical investment. International investors are increasingly concerned with environmentally friendly and ethical portfolios. This presents a significant opportunity for Indonesia to attract global investors seeking to invest in sharia-compliant green projects. In this way, Green Sukuk can strengthen capital inflows and increase foreign exchange reserves.

Domestically, Green Sukuk also plays a role in supporting the growth of the Islamic financial market. As the country with the largest Muslim population in the world, Indonesia has significant potential for developing Islamic financial instruments. Green Sukuk provides a new perspective on sukuk, one that is not only profit-oriented but also environmentally conscious. The urgency of Green Sukuk is not only related to national development but also supports Indonesia's international diplomacy. As one of the countries with the largest tropical forests, Indonesia has a moral responsibility to maintain the balance of the global ecosystem. The issuance of Green Sukuk is concrete evidence of Indonesia's contribution to the global environmental agenda.

From a regulatory perspective, the existence of Green Sukuk demonstrates the government's commitment to strengthening the legal framework for sustainable finance. Law No. 19 of 2008 concerning State Sharia Securities (SBSN) provides the legal basis for sukuk issuance, including Green Sukuk. This underscores the urgency of this instrument, not only for practical reasons but also for legal and formal reasons. Furthermore, Green Sukuk also plays a role in supporting Indonesia's energy transition. The government is targeting an increase in the renewable energy mix to 23% by 2025 [61]. To achieve this, significant financing is needed in renewable energy sectors such as solar, wind, and hydropower. Green Sukuk is one source of financing that can accelerate the achievement of this target. With these various benefits, the urgency of Green Sukuk in Indonesia is clear: this instrument bridges the needs of economic development, sharia obligations, and environmental responsibility. Its presence demonstrates Indonesia's ability to deliver financial innovation relevant to the challenges of the 21st century.

In practice, the successful issuance of Indonesian Green Sukuk since 2018 demonstrates the global community's confidence in Indonesia's commitment. Investors from various countries, including Western nations, have welcomed this instrument. This reinforces its urgency as a tool to enhance Indonesia's Islamic financial reputation globally. Therefore, Green Sukuk in Indonesia is highly pressing from an economic, Sharia law, public policy, and global perspective. Contemporary Islamic scholars and Western experts alike emphasize the importance of this instrument in addressing the challenges of climate change and financing sustainable development. Therefore, Green Sukuk must be continuously strengthened and expanded to become a key pillar of green development based on Sharia and universal values.

Linkage of Green Sukuk with SDGs

Green Sukuk is a sharia-compliant financing instrument specifically designed to fund environmentally friendly projects; its relationship to the SDGs is both direct and multifaceted. According to Habib Ahmed (Durham University), green sukuk unites two important domains: sharia compliance and global sustainability goals, making it a relevant financing vehicle for achieving SDG targets.

In relation to SDG 7 (Affordable and Clean Energy), green sukuk provides a financing mechanism for renewable generation and distributed energy infrastructure. Sean Kidney emphasized that sharia-compliant green instruments open new avenues for Muslim investors seeking halal investments, thereby increasing the capital available for clean energy projects [15]. In practice, green sukuk facilitates medium- to large-scale projects that are difficult to handle solely with the state budget. According to Monzer Kahf, although the instrument must be free from usury and *gharar*, its added value lies in the ability to direct capital to

environmentally impactful projects, a tangible contribution to SDG 7 and intergenerational equity [14].

Viewed through the *maqasid al-syariah* framework, the contribution of green sukuk to SDG 7 can be interpreted as the simultaneous realization of *hifz al-mal*, by channeling halal capital into productive and socially beneficial clean energy assets, and *hifz al-bi'ah*, by supporting projects that preserve environmental balance and long-term ecological sustainability. This alignment demonstrates that renewable energy development is not only an economic priority but also a moral obligation in Islamic law, as it safeguards wealth, resources, and environmental integrity for future generations [62][63]. Thus, SDG 7 fits naturally within the Islamic objective of ensuring sustainable prosperity, where financial instruments operate as ethical tools that advance both human welfare and environmental stewardship. Viewed through the *maqasid al-syariah* framework, the contribution of green sukuk to SDG 7 can be interpreted as the simultaneous realization of *hifz al-mal*, by channeling halal capital into productive and socially beneficial clean energy assets, and *hifz al-bi'ah*, by supporting projects that preserve environmental balance and long-term ecological sustainability. This alignment demonstrates that renewable energy development is not only an economic priority but also a moral obligation in Islamic law, as it safeguards wealth, resources, and environmental integrity for future generations. Thus, SDG 7 fits naturally within the Islamic objective of ensuring sustainable prosperity, where financial instruments operate as ethical tools that advance both human welfare and environmental stewardship.

For SDG 13 (Climate Action), green sukuk supports mitigation and adaptation by financing land restoration, flood control, and low-emission transportation. Joseph Stiglitz emphasized that financial markets must reorient capital toward sustainable investments; green sukuk is one format that enables this reorientation in Muslim-majority countries [55][56]. Green sukuk is also relevant to SDG 15 (Life on Land), where funding for forest conservation, peat restoration, and biodiversity protection can be facilitated. Muhammad Nejatullah Siddiqi emphasized that Islamic jurisprudence (*fiqh*) should encourage investments that maintain the *hifz al-bi'ah* (lawful investment) [46][48]. Therefore, green sukuk is consistent with *maqasid al-shariah* because it protects natural resources for future generations. Within the *maqasid al-syariah* framework, green sukuk advances SDG 13 through *hifz al-nafs*, as financing climate-mitigation and adaptation projects directly protects human life from environmental risks. Likewise, its contribution to SDG 15 reflects the mandate of *khalifah fil-ardh*, where conserving forests, restoring peatlands, and protecting biodiversity fulfill humanity's duty to safeguard the earth. Thus, green sukuk operationalizes Islamic objectives by protecting life and preserving ecological balance for future generations.

The effectiveness of green sukuk is measured not only by the amount of capital raised, but also by the allocation, transparency, and real-world impact of the project, according to the Climate Bonds Initiative and climate policy scientists [14]. An external verification framework (third-party verification) and impact reporting are key to ensuring green sukuk truly accelerates the achievement of the SDGs, not just serve as a label. From a Sharia perspective, Taqi Usmani emphasized that the halal status of sukuk depends on the contract structure; when the contract is free from usury, *gharar*, and *maisir*, and the use of funds is clearly for green projects, the instrument is legitimate [16]. This opinion is important because Sharia legitimacy increases the trust of the Muslim community and investors in the contribution of green sukuk to the SDGs. Islamic finance experts such as Zamir Iqbal (World Bank) see green sukuk as a tool to expand the global investor base, including both Muslim and ESG-oriented investors, thereby increasing the funding capacity for SDG targets. He emphasized that diversifying the investor base makes green project financing more resilient to market volatility [64].

Green sukuk has the potential to promote inclusive development (e.g., green jobs), thus supporting SDG 8 (Decent Work and Economic Growth). According to Habib Ahmed, when funded projects involve local communities, for example, land restoration or distributed energy projects, the social benefits will strengthen Sharia legitimacy and enhance sustainable development outcomes. However, there are important criticisms: the risk of greenwashing and

a lack of standardization. Monzer Kahf and researchers such as Alam, Hassan & Haque warn that without robust Sharia and environmental verification standards, green sukuk could become merely a marketing tool. Therefore, combining international standards (e.g., the Green Bond Principles) with Sharia supervision is necessary. Western experts such as Nicholas Stern emphasize that delaying green investments will incur greater economic costs in the future [57][58]. In this framework, green sukuk fulfills not only moral and religious compliance, but also economic rationale: accelerating mitigation/adaptation investments now to avoid higher costs later a strong argument for SDG 13 and SDG 7.

Transparency in reporting, allocation, and impact reporting mechanisms is a key determinant of effectiveness. Capital market practitioners and environmental rating agencies recommend third-party audits, quantitative impact indicators (e.g., tons of CO₂ reduced), and regular reporting to ensure green sukuk are accountable to SDGs. Regulatory-wise, the integration of positive law (e.g., the SBSN Law and the POJK) with sharia standards helps ensure the instrument meets two requirements: *fiqh* compliance and environmental effectiveness. Islamic economic law experts argue that harmonizing national regulations and international guidelines enhances the credibility of green sukuk in accelerating the achievement of the SDGs. Green sukuk also serves as a tool of financial diplomacy: Indonesia, as a pioneer, can attract global green capital while affirming its commitment to the SDGs. Sean Kidney points out that credible green sukuk issuances encourage other countries to emulate these practices, creating a contagion effect that accelerates SDG financing in developing regions [15].



Figure 1. Green Sukuk Linkages to Key Sustainable Development Goals (SDGs)

This spillover effect not only encourages positive competition between countries to improve sustainability standards but also expands the base of institutional investors concerned with environmental issues. In the long term, green sukuk can be a catalyst for the formation of a more inclusive global green finance ecosystem, where developing countries become not only beneficiaries but also key actors in the innovation of sustainable financing instruments. Thus, green sukuk serves a dual function: as a domestic mechanism to support the sustainable development agenda and as an instrument of economic diplomacy that strengthens a country's position in the international financial market.

Challenges and Prospects of Green Sukuk in Achieving SDGs

One of the main challenges in developing Green Sukuk in Indonesia is the low level of Islamic financial literacy. A 2022 survey by the Financial Services Authority (OJK) showed that Islamic financial literacy only reached around 9.14%, far behind conventional financial literacy, which reached 49.68%. The public's low understanding of the basic principles of sukuk, especially the concept of green sukuk, makes this instrument unpopular among retail

investors. This situation has resulted in slower penetration of the domestic Green Sukuk market compared to its potential. Low Islamic financial literacy not only impacts limited investor participation but also leads to a lack of awareness of the importance of environmentally friendly investments. According to research conducted by Kahar, one of the key factors in the success of Islamic financial instruments is a collective public understanding of the economic, social, and spiritual benefits of these instruments [65]. Without adequate literacy, the public tends to view Green Sukuk as merely a standard investment instrument, rather than a sustainable financing instrument.

This literacy challenge is also evident in the limited public education materials regarding Green Sukuk. Existing financial literacy programs still focus on Islamic banking and conventional sovereign sukuk products, with little emphasis on sustainability. Monzer Kahf emphasized that Islamic finance must be supported by adequate education to ensure the public understands its added value, not only as halal but also as socially beneficial [14]. This shortcoming discourages potential investors from participating because they don't understand the uniqueness of Green Sukuk compared to other instruments. In addition to literacy, the still-developing regulations also pose a serious challenge. Legally, the basis for sukuk issuance is regulated by Law No. 19 of 2008 concerning State Sharia Securities (SBSN). However, specific regulations regarding Green Sukuk still refer to POJK No. 60/POJK.04/2017 concerning Green Bonds, which does not fully address the specifics of sharia-based instruments. This creates a legal loophole, as Green Sukuk must meet two frameworks simultaneously: sharia compliance and environmental compliance. According to Razali, green financial instruments require clear regulations and harmonization with international standards to attract global investors [66]. Without integrated regulations, investor confidence in Green Sukuk could be weakened, particularly regarding transparency, accountability, and governance. This could potentially pose a reputational risk for Indonesia, which has been a global pioneer in Green Sukuk issuance.

Regulatory issues also relate to the need for impact reporting standards. Many international investors, particularly those focused on ESG (Environmental, Social, and Governance), demand quantitative reporting on the environmental benefits of the projects they finance. Without regulations requiring periodic reporting that meets international standards, Indonesian Green Sukuk could be perceived as less credible. Yet, reporting transparency is crucial for avoiding greenwashing practices. Besides literacy and regulation, another challenge is the limited pool of domestic investors. Indonesian retail investors largely focus on investment instruments with quick returns and low risk, such as deposits or money market mutual funds. Green Sukuk, with their long-term orientation and focus on environmental projects, are often considered less attractive. Consequently, the domestic investor base for Green Sukuk remains relatively small and tends to be dominated by foreign institutional investors.

According to Mervyn K. Lewis, the sustainability of Islamic financial markets requires a strong domestic investor base, so that sharia instruments do not solely depend on fluctuating foreign capital flows [67]. In Indonesia, although the issuance of the country's Green Sukuk in 2018–2023 successfully attracted international investor interest, local investor participation remains limited. This highlights the need for strategies to expand the involvement of domestic investors, both retail and institutional. The challenge of limited domestic investors is also related to risk perception. Many domestic investors still perceive Green Sukuk as a new and complex instrument, with market and regulatory risks that are not yet fully understood. However, research by the Climate Bonds Initiative shows that green instruments, including sukuk, have a relatively low default risk and are even more stable in the long term [14]. However, this negative perception remains a barrier to expanding the investor base.

The prospects for Green Sukuk in Indonesia are very promising, particularly due to increasingly strong regulatory support. Since the issuance of the first Green Sukuk in 2018, the Indonesian government has continued to improve the legal framework supporting sustainable financial instruments. This regulatory strengthening is a crucial foundation for ensuring that Green Sukuk are not merely a momentary innovation, but also a sustainable and

credible instrument in the global market. The primary legal basis for Green Sukuk is Law No. 19 of 2008 concerning State Sharia Securities (SBSN), which provides the legal umbrella for sukuk. Furthermore, POJK No. 60/POJK.04/2017 concerning Green Bonds serves as an additional reference to ensure environmentally friendly aspects. According to Setyowati, this regulatory integration demonstrates a clear direction that Indonesia is serious about developing capital market instruments that are not only Sharia-compliant but also support sustainable development [68]. Going forward, regulatory strengthening is projected through harmonization of national standards with global standards such as the Green Bond Principles and the Climate Bonds Standard. Sean Kidney emphasized that implementing international standards in green instruments can increase global investor confidence [15]. This is highly relevant for Indonesia, which hopes to maintain its position as a global pioneer in Green Sukuk. In addition to regulations, the prospects for Green Sukuk are also supported by the growing global market potential. Global trends indicate increasing demand for green financial instruments, in line with many countries' commitments to the Paris Agreement and net-zero emission targets. According to a report by the Climate Bonds Initiative, global green bond and sukuk issuance have reached over USD 500 billion, and this trend is expected to continue to grow [15].

Indonesia, as the first country to issue Green Sukuk, has a strong reputation in the global market. This offers positive prospects as international investors increasingly seek financial instruments that not only provide returns but also make a tangible contribution to the environment. Razali believes that this reputation as a global pioneer is a valuable asset that Indonesia can leverage to expand its international investor base, particularly from the Middle East and Europe [66]. The global market outlook is also driven by the growing interest of institutional investors such as pension funds, sovereign wealth funds, and multilateral development banks. They are beginning to incorporate ESG (Environmental, Social, and Governance) principles into their investment strategies.

This opens up space for Green Sukuk to become a primary instrument of choice. According to Mervyn K. Lewis, ethically based Islamic finance is closely aligned with global ESG trends, giving green sukuk a competitive advantage [67]. In addition to external factors, support from international institutions such as the World Bank, the Asian Development Bank (ADB), and the UNDP also strengthens the prospects for Indonesia's Green Sukuk. They not only act as investors but also provide technical assistance to strengthen the regulatory and governance framework. This creates a significant opportunity for Indonesia to expand the green sukuk market while strengthening international economic diplomacy. Another equally important prospect is the synergy between Islamic finance and the green economy. Islamic finance is based on principles that prohibit usury (*riba*), *gharar*, and *maisir*, while emphasizing the benefit (*maslahah*). Green Sukuk, with its orientation toward financing environmentally friendly projects, aligns with the *maqasid al-shariah*, particularly *hifz al-bi'ah* (environmental protection).

Table 3. Challenges and Prospects of Green Sukuk in Achieving the SDGs

| Main Variable | Sub-Variable | Key Indicators | Link to SDGs |
|---------------------------|--|--|----------------------------------|
| Challenges of Green Sukuk | Low Islamic Financial Literacy | Islamic financial literacy only 9.14% (OJK 2022) Limited understanding of Green Sukuk principles | SDG 4 (Quality Education) |
| | Limited Public Education | Education materials focus on Islamic banking Minimal emphasis on sustainability aspects | SDG 12 (Responsible Consumption) |
| | Incomplete Regulatory Framework | No specific regulation for Sharia-based Green Sukuk Dual compliance: Sharia + environmental standards | SDG 16 (Strong Institutions) |

| | | | |
|--------------------------|--|--|------------------------------------|
| | | Weak impact-reporting requirements | |
| | Narrow Domestic Investor Base | Preference for low-risk, short-term instruments Dependence on foreign institutional investors | SDG 8 (Economic Growth) |
| | High Perceived Risk | Viewed as new and complex instruments Limited understanding of market/regulatory risks | SDG 13 (Climate Action) |
| Prospects of Green Sukuk | Strengthening National Regulation | Integration of SBSN Law and Green Bond Regulation Alignment with global standards (GBP, CBS) | SDG 16 (Governance & Transparency) |
| | Expanding Global Market Potential | Global demand for green instruments > USD 500 billion Indonesia's strong reputation as a pioneer | SDG 17 (Global Partnerships) |
| | Support from International Institutions | Technical assistance from WB, ADB, UNDP Increased ESG-aligned investment | SDG 7 & SDG 13 |
| | Synergy Between Islamic Finance & Green Economy | Consistent with maqasid al-shariah (hifz al-bi'ah) Emphasis on economic–social–ecological benefit | SDG 7, 13, 15 |
| | Alignment with National Policies | RPJMN and RUEN support renewable energy expansion Financing strategic green projects | SDG 7 (Clean Energy) |
| | Product Diversification | Sovereign, corporate, retail green sukuk Blended finance opportunities | SDG 9 (Industry & Innovation) |
| | Digitalization of Islamic Capital Market | Blockchain-based transparency and reporting Broader retail investor access | SDG 16 (Accountability) |

In the context of the SDGs, the prospect of Green Sukuk is increasingly relevant because it directly contributes to the achievement of SDG 7 (Clean Energy), SDG 13 (Climate Action), and SDG 15 (Life on Land). According to OECD research (2021), green financial instruments integrated with sharia principles can accelerate the achievement of SDG targets due to their broader moral, religious, and social legitimacy in Muslim-majority countries [40]. Going forward, the prospects for Green Sukuk also include product diversification. Not only sovereign sukuk, but also potential developments in the form of green corporate sukuk, green retail sukuk, and blended finance mechanisms that combine public and private capital. This diversification will broaden the investor base while funding various types of environmentally friendly projects in both the public and private sectors. The prospects for Green Sukuk are also linked to the digitalization of the Islamic capital market. The use of blockchain technology, for example, can strengthen transparency and accountability in project impact reporting. According to Mohamed A. Elgari, technological innovation in Islamic finance is crucial for increasing efficiency and increasing global investor confidence [69]. If applied to Green Sukuk, digitalization could be a driving force in expanding access for retail investors.

CONCLUSION

Green Sukuk has emerged as a strategic Islamic financial instrument that successfully integrates Sharia principles with the global agenda of sustainable development. Rooted in Islamic jurisprudence, this instrument reflects the values of maqasid al-shariah, particularly the protection of the environment (hifz al-bi'ah), wealth (hifz al-mal), and future generations. Its implementation demonstrates that Islamic finance is not only concerned with legal compliance, but also with broader ethical and social responsibilities. In practice, Green Sukuk contributes significantly to achieving the Sustainable Development Goals (SDGs), especially in promoting clean energy, supporting climate action, and fostering ecosystem conservation. From an academic perspective, this study contributes to the enrichment of literature on the intersection between Islamic finance and green economy by offering a conceptual and practical linkage between maqasid al-shariah and sustainable finance instruments. It highlights how Islamic ethical values can be translated into concrete state financial policies, thereby strengthening both theoretical and normative frameworks. Consequently, Green Sukuk can be positioned as a viable global model that bridges Islamic financial systems with international sustainability commitments. Despite these strengths, several limitations remain evident. The relatively low level of Islamic financial literacy among the public continues to hinder broader participation. In addition, the domestic investor base for Green Sukuk remains limited, affecting market expansion and liquidity. Regulatory challenges also persist, particularly the need to harmonize national frameworks with international green finance standards to enhance credibility and competitiveness in global markets. Furthermore, the long-term impact evaluation of projects financed through Green Sukuk is still insufficient, indicating a gap in comprehensive data and performance measurement. These limitations open important avenues for future research and policy development. Further empirical studies are needed to assess long-term environmental and socio-economic impacts, while policy efforts should focus on strengthening literacy, expanding investor participation, and improving regulatory alignment. Through these advancements, Green Sukuk holds strong potential to become a transformative instrument in advancing sustainable, ethical, and inclusive global development.

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Author Contribution

All authors contributed equally to the preparation and completion of this manuscript. Their roles included conceptual development, research design, data analysis, funding support, translation, and manuscript editing. Each author actively participated throughout the research process, reviewed the content critically, and approved the final version of the manuscript for publication, ensuring its academic quality and integrity.

Conflicts of Interest

The authors declare that there are no conflicts of interest related to this research, authorship, or publication of this article. This study was conducted independently without any financial, institutional, or personal relationships that could influence the objectivity, interpretation, or conclusions presented. All findings and discussions are presented transparently and responsibly based on academic standards and ethics.

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