JMM17 JURNAL ILMU EKONOMI DAN MANAJEMEN
Volume 12 No 01 – April 2025 – ISSN (Online): 2355-7435

JMM17: Jurnal Ilmu Ekonomi dan Manajemen
Sinta 3 Accredited SK No. 72/E/KPT/2024
Journal page is avaliable to
https://jurnal.untag-sby.ac.id/index.php/jmm17/index

Initiating Green Waqf Finance in Waqf Forests: A Sharia-Based Financing Model for the Sustainability of the People's Economy, Ecology, and Ecosystems

Yuli Yanti Wulansar[a1], Wahyu Ari Andriyanto [2] , Dewi Agustya Ningrum[3], Nabila Mirza Syif[d4], Muhammad Arif Billa[e5]*

Fakulty of Economic nd Business, Universitas Maarif Hasyim Latif, Sidoarjo, Indonesia

Corresponding Author*: yuli.wulansari@dosen.umaha.ac.id*

ARTICLE INFO

Article history:
Received: 5 Februari 2026
Revised: 13 Maret 2026
Accepted: 31 Maret 2026

Keywords: [Key word heading]
Productive waqf, sharia accounting, green finance, waqf forest, sustainability.

IEEE style in citing this article: [citation Heading]
Yuli Yanti Wulansar at all., (2026). Initiating Green Waqf Finance in Waqf Forests: A Sharia-Based Financing Model for the Sustainability of the People's Economy, Ecology, and Ecosystems," *JMM17: Jurnal Ilmu Ekonomi dan Manajemen*, vol. 13, no. 1, pp. 75-90.

ABSTRACT

This research proposes the development of a Green Waqf Finance Model, a waqf financing scheme that integrates Sharia accounting standards (PSAK 112 and AAOIFI), the principles of maqasid sharia, and a green finance approach. Using exploratory qualitative methods and a case study of the waqf forest in Ngembat Village, Mojokerto, this research explores actual practices, formulates relevant accounting principles, and develops a waqf reporting framework that integrates spiritual, economic, social, and ecological dimensions. The novelty of this research lies in the rarely researched subject of waqf forests, the integration of the triple bottom line in waqf reporting, and its contribution to the Sustainable Development Goals (SDGs) agenda. The final results are expected to serve as academic and practical references for waqf managers, regulators, and Islamic financial institutions in developing fair, transparent, and sustainable financing systems.

2026 JMM17: Jurnal Ilmu Ekonomi dan Manajemen (Journal of Economic and Management Science) with CC BY NC SA license.

1. INTRODUCTION

The use of waqf in Islam has undergone a significant transformation from a mere form of consumptive worship to a productive social financial instrument. In the early days of Islamic civilization, waqf was widely used to finance mosques, madrasas, cemeteries, and other places of worship for consumptive purposes. However, as the needs of the community and the challenges of the times evolved, waqf began to be directed toward the productive realm, namely generating sustainable economic benefits for society, without losing the eternal essence of waqf assets themselves [1]. One innovative form of waqf utilization that has begun to gain attention in recent years is the use of forests as waqf objects. Waqf forests are a strategic concept that combines sharia-compliant natural resource management with the long-term interests of the community and the environment. From this

perspective, forests serve not only as carbon stores and ecosystem buffers, but also as assets that can be utilized to improve the economic well-being of surrounding communities through halal and sustainable productivity models [2].

However, despite these significant opportunities, a fundamental obstacle remains: the lack of a structured and accountable financing model integrated with Sharia accounting principles for waqf forest management. Yet, in the implementation of productive waqf, Sharia-compliant financial recording, reporting, and management are crucial to ensure transparency, efficiency, and sustainability. Currently, the majority of forest management practices, both conventional and social-based, focus on technical forestry aspects and have yet to incorporate Sharia accounting as a fund and impact management system [3]. On the other hand, the international community has promoted a new paradigm through the concept of green finance, a financing system that supports projects oriented towards environmental sustainability. Green finance is currently the primary approach in financing the forestry, renewable energy, and environmental conservation sectors, particularly within the framework of achieving the Sustainable Development Goals (SDGs). Unfortunately, in the Islamic context, the integration of green finance and waqf remains relatively minimally studied, both in academic literature and in institutional practice [4]. Yet, theologically and ethically, Islam highly upholds the values of sustainability, ecosystem balance, and socio-economic justice.

Therefore, this research aims to address this gap by proposing the development of a financing model called Green Waqf Finance, based on Islamic accounting principles. Conceptually, Green Waqf Finance is a combination of Islamic social finance principles (waqf), sharia accounting reporting principles [3], and global environmental sustainability principles. This research is novel in several aspects. First, it addresses forests as a productive waqf instrument, a topic rarely discussed in Islamic finance literature. Second, it formulates a sharia-compliant accounting-based financing model for waqf forests, which can be structurally implemented by waqf management institutions, forestry agencies, and Islamic socio-economic actors. Third, it integrates the concept of green finance with the maqasid sharia principles as a normative and operational foundation for developing environmentally conscious Islamic finance. Thus, this research not only offers a financial solution but also contributes to an accountable, sustainability-oriented, and sharia-compliant waqf reporting and governance system.

Regarding the research gap, previous studies have largely discussed productive waqf in the form of physical assets such as property and agricultural land, but very few specifically examine forests as productive waqf objects. Studies on waqf accounting are also largely conceptual without technical implementation in the context of nature-based assets. Through an interdisciplinary approach, this research is expected to provide both academic and practical contributions. Academically, this model expands the study of Islamic accounting by incorporating ecological value as part of impact reporting. Practically, this research can serve as a guideline for waqf institutions, forestry authorities, and Islamic financial regulators in developing effective, efficient, and sustainable waqf-based forest financing policies and schemes.

To empower forests as productive waqf assets, a financing and reporting system is required that not only complies with Sharia principles but also ensures economic and environmental sustainability. In this context, sharia accounting plays a crucial role in bridging the gap between waqf fund management and accountable, transparent, and transformative governance practices. However, to date, there is no structured sharia accounting–based financing model specifically designed for waqf forest management within the framework of green finance. This condition reflects a significant disparity between the substantial potential of forestry waqf as a productive and ecological asset and the availability of an appropriate financing and reporting system capable of supporting long-term sustainability. Consequently, this research addresses the need to examine current waqf forest management and financing practices from a sharia accounting perspective, to formulate Islamic accounting principles suitable for designing a sustainable waqf forest financing model, and to analyze how such a model can contribute to the sustainability of the people's economy, ecological preservation, and ecosystem balance.

The objectives of this research represent the primary direction of the scientific inquiry undertaken to address the previously identified research problems. By emphasizing the integration of Islamic accounting, waqf forest management, and green finance, this study aims to generate both theoretical and practical contributions to the development of environmentally sustainable Islamic social finance. Specifically, this research seeks to analyze existing practices of waqf forest management, particularly in terms of financing mechanisms and financial reporting based on sharia accounting principles; to formulate relevant Islamic accounting principles for the development of a sustainable waqf forest financing model; and to develop and propose a Green Waqf Finance model grounded in sharia accounting that is capable of supporting the sustainability of the people's economy, ecological preservation, and ecosystem balance in an integrated manner.

This research is expected to provide comprehensive benefits, both theoretically and practically, in advancing knowledge and applications related to waqf management, particularly within the domains of sharia accounting and environmental sustainability. From a theoretical perspective, this study contributes to the enrichment of Islamic accounting literature by developing financial recording and reporting models tailored to natural resource–based waqf assets, especially waqf forests. In addition, it provides a conceptual contribution to the development of Green Waqf Finance as an integrated framework that combines Islamic social finance with sustainable financing principles. Furthermore, this research serves as an initial foundation for the development of an Islamic values–based impact reporting framework by expanding the scope of conventional financial reporting to encompass economic, social, and environmental sustainability dimensions.

From a practical standpoint, this research offers an alternative and viable financing model for waqf management institutions in managing forests and other environmental assets productively and sustainably in accordance with sharia principles. It also proposes an accountable and transparent financial reporting framework that can be utilized by waqf institutions and various stakeholders, including donors, regulators, and the broader public, thereby strengthening trust and governance in waqf management. Moreover, the findings of this study can serve as a policy reference for government authorities, national waqf institutions such as the Indonesian Waqf Board (BWI), and Islamic financial institutions in designing Islamic social finance instruments that support ecosystem preservation and enhance community economic resilience.

In terms of social and ecological benefits, this research encourages the fair and sustainable distribution of waqf benefits to communities surrounding forest areas, thereby promoting inclusive and long-term welfare. It also contributes to environmental conservation efforts through an approach grounded in Islamic values that emphasize stewardship, balance, and responsibility toward nature. Finally, this study represents an initial initiative in fostering collective awareness within society that environmental management can be carried out through a structured, professional, and sharia-compliant framework, integrating spiritual, social, and ecological accountability.

2. STATE OF THE ART

Sharia Accounting for Waqf

The basic principle of Islamic accounting for waqf is to ensure that the management of waqf funds adheres to the principles of justice, transparency, and sustainability, as taught in Islamic values. According to [5], Islamic accounting goes beyond simply recording transactions, but also reflects the moral and spiritual responsibility of a manager (nazhir) for the trust entrusted to them. Therefore, waqf financial reports must not only be accurate and auditable, but also demonstrate that the waqf management provides tangible benefits (maslahat) to the community.

PSAK 112 issued by the Indonesian Institute of Accountants [3] states that waqf management must clearly disclose the separation between waqf assets, waqf benefits, and waqf management results. This aligns with the sharia objective of safeguarding the community's assets from being mixed with personal or institutional assets and ensuring that productive waqf continues to generate sustainable

economic value without compromising the inherent permanence of waqf assets. In practice, PSAK 112 allows for flexibility in reporting, as long as sharia principles are maintained.

In addition to PSAK 112, international standards such as the AAOIFI also emphasize the importance of preparing periodic and transparent waqf financial reports. Shari'ah Standard No. 33 states that the nazhir is required to report all waqf management activities to the public, including assets, income, expenses, and benefit distribution [6]. [7] stated in their study that waqf accounting ideally includes elements of social impact accounting, for example, through reporting the number of beneficiaries, the types of benefits, and their contribution to the maqasid sharia objectives.

In another study, [8] emphasized the importance of developing a reporting model capable of explaining the sustainability of waqf assets, including those based on natural resources such as forests. They proposed an accounting system that not only includes historical reporting but also includes forward-looking statements regarding the potential growth of waqf assets and their management strategies. As technology advances, efforts are emerging to implement blockchain-based digital accounting in waqf management. According to a study [9], the use of blockchain can increase transparency and public trust in waqf financial reports, as data cannot be manipulated and every transaction can be accurately traced.

In waqf forest management, Islamic accounting also needs to consider recognizing ecosystem value as part of the non-financial benefits. As proposed [10], waqf accounting should include natural capital reporting, namely reporting the ecological value of managed assets. However, significant challenges remain in implementing Islamic accounting for waqf in Indonesia and the Islamic world in general. [11] found that the low capacity of human resources for nazhir (Islamic waqf administrators), the lack of technical regulations, and the lack of integration of digital reporting systems are key obstacles to achieving professional waqf governance. Therefore, improving Islamic accounting literacy, training for nazhir (Islamic waqf administrators), and collaborating with Islamic financial institutions are strategic steps.

Given all these dynamics, it is clear that Islamic accounting plays a strategic role in the development of productive waqf, including in the Green Waqf Finance model for waqf forest management. Going forward, the development of an accounting model that is not only compatible with PSAK and AAOIFI but also adapts to the principles of green finance and sustainability reporting is essential. This will lay a crucial foundation for integrating waqf, Islamic accounting, and ecology into a unified, transparent, and beneficial system.

Green Financeand Sustainable Development Goals (SDGs)

Green finance has become mainstream in global development strategies. This concept refers to the financing of projects and policies explicitly aimed at reducing negative environmental impacts while supporting the achievement of sustainable development. According to the [12], green finance encompasses the financing of clean energy projects, nature conservation, sustainable infrastructure development, and climate risk management. Therefore, in developing countries, green finance also holds significant potential to address the financing gap for ecological projects. Commonly used instruments in green finance include green bonds and green sukuk. In Muslim-majority countries, green sukuk are an innovation that bridges Islamic financial principles with the global environmental agenda. The first green sukuk was issued by Malaysia in 2017 and marked a milestone in the development of Islamic green finance. This sukuk is based on environmentally friendly projects that meet Sharia and sustainability criteria [13].

Green sukuk not only does it finance environmentally friendly projects, but it also provides clarity on the use of proceeds, as required by the DSN-MUI fatwa and the International Capital Market Association (ICMA) standardization. This provides confidence for social investors and Islamic philanthropists who wish to engage in welfare-oriented projects without compromising Islamic financial principles. In the SDGs concept, green finance directly contributes to goals 7 (clean energy), 11 (sustainable cities and communities), 13 (climate action), and 15 (land ecosystems). According to the

[4], integrating Islamic finance with the SDGs will accelerate the achievement of global targets, particularly in Islamic countries with significant resource potential but limited public financing. One highlighted instrument is green waqf, which can be a form of long-term social financing for environmental conservation.

Green finance Waqf is an essential component of Islamic-based green finance. In this scheme, waqf is used to support conservation projects such as reforestation, forest management, or the development of ecotourism areas managed according to Sharia principles. According to Asutay (2020), combining waqf and green finance will create stable, community-based, long-term financing that is not solely dependent on commercial returns. In Indonesia, the Ministry of Finance has taken initial steps through the issuance of State Green Sukuk (Islamic bonds) since 2018. These bonds are used to finance public transportation, energy conservation, and disaster mitigation projects. Although not explicitly using the waqf model, this approach can be adapted for waqf forests, by designating forest areas as waqf assets and utilizing Islamic social funds for their maintenance [14].

However, significant challenges remain. Among them is the lack of integration between waqf institutions and Islamic financial institutions, as well as the limited reporting standards that can bridge green finance with waqf financial reporting. This is reinforced by the findings of [15], who noted that there is no mechanism capable of systematically and accountably measuring the ecological impact of waqf projects within the Islamic accounting system. To address these challenges, an integrated reporting model is needed that combines the principles of green finance, SDGs, and sharia accounting. In this context, green waqf finance can serve as an innovative model that combines Islamic ethics, ecology, and financial efficiency, while also serving as a model for modern and solution-oriented Islamic financial practices.

Economic and Ecological Sustainability in Islam

In Islamic teachings, sustainability is not simply a modern economic or ecological concept, but rather part of a value system embedded in the maqasid sharia (objectives of Islamic law). The primary objectives of sharia include the protection of religion (din), life (nafs), reason (aql), posterity (nasl), and wealth (mal). However, in contemporary approaches, Islamic scholars and economists have expanded this meaning to include environmental protection as a primary means of ensuring the continuity of life and the well-being of future generations [16].

As emphasized [17], development in Islam is comprehensive human development. This encompasses spiritual, social, economic, and environmental dimensions. In the case of waqf, when a forest is made an object of waqf, it not only functions as an asset that produces economic benefits for the beneficiary (mauquf ‘alaih), but also plays an important role in maintaining the ecosystem and microclimate of the surrounding area. According to [18], waqf directed at environmental protection reflects the highest form of social worship because it provides recurring benefits (tsawabul Jariyah) to society and nature simultaneously.

A green economy in Islam aligns with the growth with equity and sustainability approach. A study by [15] states that the Islamic economic model fundamentally incorporates mechanisms for distribution and social justice, through instruments such as zakat, infaq, sedekah, and waqf, which can foster inclusive development and minimize environmental damage. Therefore, the development of Green Waqf Finance for waqf forest management is not only an innovative project in the Islamic social finance sector, but also a concrete implementation of Islamic eco-justice, namely economic and environmental justice based on Sharia values.

Islamic Finance Model for Environmental Financing

Islamic finance has proven its strategic role in supporting social and productive financing based on Islamic values. Cash waqf allows for broad community participation because it can be distributed in small amounts periodically without changing ownership of the primary asset. According to [1], cash

waqf can be invested in productive and sustainable projects while maintaining the principle of the permanence of waqf assets. The use of cash waqf for environmental projects is beginning to receive special attention. Due to its stable, debt-free nature, cash waqf can finance long-term projects without incurring the interest burden or commercial pressures associated with conventional instruments [19].

Meanwhile, waqf-linked sukuk offer an innovative instrument. This sukuk combines the investment-based sukuk structure with the social objectives of waqf. In this scheme, the proceeds from the sukuk issuance are used to finance the development of waqf assets, while the management and returns from these assets are distributed to the waqf beneficiaries. A study [20] shows that this model has been used to fund green Islamic boarding schools, hospitals, and even waqf-based conservation areas. The advantage of waqf sukuk lies in its ability to raise funds from social and institutional investors without having to rely solely on donations. Waqf sukuk has the potential to attract middle-class Muslims who want to participate in productive waqf projects without having to permanently relinquish funds. In this case, waqf becomes more liquid and easily accessible, especially if issued on the secondary sharia market [21].

The uniqueness of this financing model lies in the link between spiritual values, social benefits, and environmental conservation. In Islamic finance, the principle of "use of funds" is very strict and the purpose must be clear. This makes the Sharia financing model particularly suitable for environmental projects that require restricted-purpose financing and long-term financing [17]. In the contemporary maqashid sharia approach, environmental sustainability is now understood as part of protecting life (hifz al-nafs) and wealth (hifz al-mal), as ecological crises can directly threaten both [22].

A study by [23] emphasized that the Islamic financial system should be developed into a multi-bottom-line system, where performance measures are not only based on profitability but also include social and ecological impacts. Therefore, financial reports for waqf projects, including waqf forests, need to be complemented with maqashid-based sustainability indicators and green metrics.

This financing model can also strengthen local economies and community resilience, particularly around waqf forest areas. Cash waqf funds can be used to finance agroforestry training, empower green MSMEs, and develop environmentally-based sharia tourism. This supports the integration of ecological conservation and sustainable economic growth for the community [15]. In practice, the success of this model is largely determined by governance and financial accountability. This is where the implementation of PSAK 112 and AAOIFI standards in reporting waqf assets and funds is crucial. Without transparent reporting, public trust as donors cannot be built [24].

Furthermore, the use of financial technologies such as blockchain for waqf accounting and green projects can improve efficiency, traceability, and accountability. [9] suggest implementing smart contracts to ensure waqf funds are used in accordance with sharia and environmental objectives, as well as involving the community in oversight. Thus, Islamic financial models such as cash waqf, sukuk waqf, and Islamic social funds can be integrated within the Green Waqf Finance framework, which not only addresses environmental financing needs but also strengthens Islamic social finance and ensures the economic and ecological sustainability of the community.

Triple Bottom Lineand Integrated Sharia Reporting

The Triple Bottom Line (TBL) concept was first introduced by John Elkington, who emphasized the need to assess organizational performance from three perspectives: Profit (economic), People (social), and Planet (environmental). This approach is increasingly relevant in the era of sustainable development and has become a reference in the development of integrated reporting frameworks across various sectors, including the Sharia-compliant financial sector. From an Islamic perspective, the principle of tawazun (balance) is a moral foundation that aligns with the spirit of TBL. In the Qur'an, Allah commands humans not to cause damage to the earth (fasad), but rather to be guardians of its sustainability (QS. Al-A'raf: 56).

Sharia financial reportingshould not stop at financial figures. According to [25], reports in the Islamic system should reflect the value of tawhid, namely the oneness of God as the central orientation

of economic activity. This means that every activity and financial report must reflect vertical (habl min Allah) and horizontal (habl min an-nas and habl min al-bi'ah) relationships, namely responsibility towards fellow human beings and the environment. The concept of Integrated Sharia Reporting emerged as an effort to bridge conventional financial reporting with spiritual and social responsibility. This report integrates financial information, social impacts, ecological impacts, and the ethical and spiritual dimensions underlying economic activity in Islam.

According to [22], maqashid sharia can be used as a framework for evaluating the social and environmental impacts of economic activities. Therefore, integrated sharia reporting should measure indicators such as life protection, improving the welfare of the community, and environmental sustainability as part of accountability to God and society. In this regard, TBL and Integrated Sharia Reporting serve not only as reporting tools but also as instruments for ethical control and evaluation of the governance of waqf management institutions (nazhir). The principles of amanah (trustworthiness), mas'uliyyah (responsibility), and ihsan (professionalism) are integral to this reporting system, as emphasized in PSAK 112 and AAOIFI standards [24].

This model also demands the strengthening of values-based governance. Every nazhir, or waqf management institution, must be accountable not only to regulators or donors, but also to society, nature, and Allah. This is where spiritual accountability lies, distinguishing Islamic accounting from conventional, secular, profit-oriented systems [26]. By adopting TBL and Integrated Sharia Reporting, waqf projects, such as waqf forests, will have documented spiritual and social added value, making it easier to attract public participation, philanthropy, and even collaboration with the green finance sector. Furthermore, this approach also enables waqf management institutions to prepare comprehensive, impact-based annual reports, rather than just conventional financial reports. This is crucial for promoting transparency, building public trust, and increasing the effectiveness of waqf management in supporting the sustainability agenda for the people and the planet.

2.6 Framework

Figure 1. Framework of Thought

The conceptual framework in the figure above shows the logical flow from the foundation to the main objectives of the research. It begins with waqf forest assets, which are positioned as strategic resources based on Islamic social finance. This significant potential needs to be optimized through financing and governance approaches that comply with Sharia principles and sustainability. To manage this potential, this study proposes the development of a Green Waqf Finance Model based on Sharia accounting principles. This model is designed to address the need for a financing system that is not only Sharia-compliant but also reflects the values of sustainability and social responsibility. By aligning PSAK 112, AAOIFI standards, and green finance principles. When reporting and governance systems are implemented in a trustworthy, efficient, and responsible manner, the end result is

economic, ecological, and ecosystem sustainability. This aligns with the maqasid sharia and the Sustainable Development Goals (SDGs), ensuring that the benefits of waqf are not only enjoyed by the current generation but also safeguarded for future generations.

3.RESEARCH AND METHODS

This study adopts an exploratory qualitative research design to examine in depth the phenomenon of waqf forest management from the perspectives of sharia accounting and sustainable financing. The exploratory approach is employed because the concept of Green Waqf Finance and its application to waqf forest financing remain relatively new and insufficiently explored in both academic discourse and practical implementation. To strengthen both conceptual and empirical insights, this research integrates a comprehensive literature review with a field-based case study approach. The case study focuses on a 1.6-hectare waqf forest located in Ngembat Village, Gondang District, Mojokerto Regency, East Java, which is managed by the Maarif Education and Social Foundation (YPM) Sidoarjo. This location was purposively selected as it represents one of the limited waqf forest initiatives in Indonesia managed by an institutional foundation overseeing educational institutions from primary to higher education levels.

The research object is the waqf forest management institution under the auspices of YPM Sidoarjo, with emphasis on its organizational structure, sharia accounting practices, financing schemes and sources of funds, reporting and accountability mechanisms, as well as the economic, social, and ecological impacts generated by waqf forest management. By employing a case study at this site, the research is able to capture the institutional, financial, and sustainability dimensions of waqf forest governance in an integrated manner.

This study utilizes both primary and secondary data sources. Primary data were obtained through semi-structured, in-depth interviews with key informants, including the nazhir as the main manager of waqf assets, sharia accountants or financial staff of the waqf institution, forest managers or field officers, and foundation representatives involved in policy-making related to waqf forest management. The interview guidelines were developed based on sharia accountability indicators and green finance principles to ensure consistency and relevance. Secondary data were collected from various documents and archives, including waqf financial reports (where available), PSAK 112 implementation documents and AAOIFI standards on waqf reporting, annual or sustainability reports of the waqf forest management institution, internal documents such as forest management proposals and program evaluations, as well as scientific literature and academic journals related to sharia accounting, green finance, and sustainability in Islam.

Data collection was carried out through a combination of in-depth interviews, documentation studies, and limited field observations. In-depth interviews were conducted to explore managerial perceptions, practices, and understanding regarding waqf accounting and sustainable financing. Documentation studies were used to analyze financial records, activity reports, and institutional policy frameworks, while limited observations were undertaken, where possible, to directly assess the physical condition and operational activities of the waqf forest.

The data analysis process employed two complementary approaches. First, content analysis was used to systematically examine financial reports, activity reports, and waqf management records in order to identify how sharia accounting principles, sustainability dimensions, and maqasid sharia indicators are reflected in management and reporting practices. Second, a model design approach was applied by synthesizing empirical findings and relevant literature to develop a Green Waqf Finance model based on sharia accounting. This model encompasses the structure of waqf funds (including cash

waqf, sukuk, and other Islamic social funds), financial management and reporting mechanisms, economic, social, and ecological performance indicators, and an integrated reporting framework grounded in the Triple Bottom Line concept and maqasid sharia.

To ensure the validity and credibility of the research findings, data triangulation was employed as a key validation strategy. Triangulation was conducted by cross-verifying data obtained from interviews, documentary sources, and academic literature to enhance the consistency and robustness of the analysis. In addition, member checking was performed by confirming key interpretations and findings with selected informants, thereby reducing potential researcher bias and increasing the trustworthiness of the results. This research was conducted in accordance with established ethical principles. Ethical considerations included obtaining formal permission from relevant institutions, ensuring the confidentiality of data and informants, securing voluntary and informed consent for interviews, and maintaining transparency regarding the objectives and scope of the research throughout the study.

4. RESULT AND DISCUSSION

Research Results

This research was conducted in the Waqf Forest in Ngembat Village, Gondang District, Mojokerto Regency, East Java, which is managed by the Maarif Education and Social Foundation (YPM) Sidoarjo. This local initiative, a 16-hectare waqf forest, represents an innovative use of productive waqf in the environmental sector. Forest waqf combines sharia-based natural resource management with the long-term interests of the community and ecological conservation. This concept aligns with the transformation of waqf from a consumptive practice to a productive social financial instrument [1]. Through productive waqf, such as forests, waqf assets are not only secured for eternity but also optimized for sustainable economic benefits for the surrounding community [2]. The Ngembat Waqf Forest Initiative demonstrates the potential of waqf to support socio-economic development as well as environmental conservation, in line with the view that waqf can build social capital and contribute to sustainable development [21][18].

Research findings in the Ngembat Waqf Forest case indicate that its financial management and financing still face various fundamental challenges. This phenomenon aligns with previous studies that noted that many waqf institutions experience limitations in terms of financing innovation and productive fund management [1][19]. Waqf forest financial records are still integrated into general foundation reports and do not refer to Statement of Sharia Financial Accounting Standards (PSAK) No. 112 concerning waqf [3]. This is despite the fact that both the national standard and international Sharia guidelines [6] emphasize the importance of transparent and accountable waqf accounting in accordance with Sharia principles. There has been no effort to integrate information related to social and environmental impacts in reporting. Current waqf forest management reports generally only cover basic financial aspects and physical activities (e.g., number of trees planted), but do not systematically disclose social benefits (beneficiaries, jobs created) or environmental indicators (carbon sequestration, biodiversity). This phenomenon aligns with literature that states the need for a waqf reporting model that incorporates dimensions of sustainability and ecological value [23][25]. From a governance perspective, the capacity of local nazhir (waqf managers) remains limited. This limitation aligns with [11] findings that many productive waqf administrators require increased capacity and institutional collaboration in managing waqf assets. Overall, this situation confirms the gap between the significant potential of waqf for environmental projects and the availability of appropriate financing and accounting frameworks [7][4].

This model is designed as an innovative framework that integrates sharia accounting principles, sustainable financing mechanisms, and sustainability reporting into a single entity. Its

primary objective is to bridge the needs of productive waqf funding with ecological sustainability values without neglecting sharia compliance. The model development is based on the maqasid sharia (Sharia objectives) so that each financing and reporting component is directed towards achieving socio-economic benefits and environmental preservation simultaneously [16]. Furthermore, this model adopts a triple bottom line approach in evaluating waqf performance, meaning success is measured by the simultaneous achievement of economic, social, and environmental targets [27][26]. This is consistent with the concept of Islamic moral economy, which emphasizes that Islamic accounting and finance should take into account obligations not only to fund owners but also to society and the environment [26]. By also referring to the concept of green finance, this model ensures that waqf financial practices align with emerging green finance initiatives at the national and global levels [13][14]. Overall, the proposed Green Waqf Finance Model offers a holistic approach: complying with Sharia principles while achieving sustainability as mandated by the Sustainable Development Goals (SDGs) agenda [4]. The details of the model's main components are outlined below.

Geeral Description of Research Location and Profile of Waqf Forest

This research was conducted in the Ngembat Waqf Forest, located in Ngembat Village, Gondang District, Mojokerto Regency, East Java. The research site covers approximately 1.6 hectares of land that has been endowed to the Ma'arif Education and Social Foundation (YPM) and is managed as a waqf-based conservation forest. Physically, the forest area is characterized by hilly terrain that was previously partially degraded. Through reforestation programs, vegetation restoration, and restrictions on extractive activities, the area is being developed into a small protected forest that functions as a water catchment area, a buffer zone for the local ecosystem, and a space for environmental education. Institutionally, the Ngembat Waqf Forest is managed through a governance structure in which YPM acts as the nazhir holding the waqf mandate, supported by the foundation's financial staff responsible for administrative and financial record-keeping, as well as field managers who oversee technical forestry operations, planting activities, and community empowerment programs. In addition, the Ngembat Waqf Forest has begun to connect with broader national networks through its participation in green waqf initiatives initiated by the Indonesian Waqf Board (BWI) and its partners, thereby opening opportunities for the development of more advanced financing mechanisms and governance models [28].

Analysis of Results and Discussion

Field Findings: Management and Financing of Waqf Forests

Nazir's Perspective

An interview with Nazhir revealed that the initial motivation for establishing the Ngembat Waqf Forest was to revive the tradition of waqf as an instrument for long-term public benefit, while also addressing environmental degradation. Nazhir views the waqf forest as a form of productive endowment that does not generate direct financial returns but provides significant ecological and social benefits. Nazhir emphasized that the Islamic jurisprudence principle of "retaining the principal and distributing the benefits" underpins management: waqf land may not be sold or converted, while its benefits are optimized through conservation and social programs [18][19]. However, they also recognized that without a structured financing scheme, the sustainability of conservation activities would be highly dependent on incidental donations and self-help.

Finance Staff Perspective

From the financial side, the finance staff explained that the main sources of funding for the waqf forest currently are: cash endowments and voluntary donations from YPM congregations, alumni, and sympathizers, onations of goods or services (e.g. seeds, volunteer labor), and small assistance from partner social programs. Financial record keeping remains rudimentary, consisting of cash receipts and disbursements combined with other foundation activity entries. There are no specific waqf financial reports prepared in accordance with PSAK 112 [3], and there is no clear separation between the

principal waqf and the proceeds from its management. This situation aligns with findings that many waqf institutions in Indonesia have not yet fully implemented formal waqf accounting standards [7]. Reliance on purely philanthropic funding poses sustainability risks, especially as forest maintenance costs increase over time [1].

Field Manager Perspective

Field managers described daily activities, including tree planting, vegetation maintenance, patrols to prevent damage, and environmental education activities for students and the community. Limited funding has hampered the development of more adequate facilities (toilets, safe paths, interpretation boards, etc.), thus under-utilizing the potential for a green economy to flow to the surrounding community. Meanwhile, community participation is quite high, but a structured.

Application of Sharia Accounting and Maqasid Syariah

Compliance with PSAK 112 and AAOIFI Standards

PSAK 112 on Waqf Accounting regulates the recognition, measurement, presentation, and disclosure of waqf transactions for nazhir [3]. This standard requires:

- Recognition of waqf assets when there is a transfer of benefits and risks from the waqif to the nazhir;
- Separation between waqf assets, non-waqf assets, and waqf management results;
- Preparation of waqf financial reports (financial position reports, activity reports, cash flows, and notes to the financial reports).

Similarly, [6] through its Financial Accounting Standard and Governance Standard for waqf emphasizes transparency, asset segregation, and sharia supervision. The research results show that record-keeping practices in the Ngembat Waqf Forest do not meet these requirements. A special waqf report has not been prepared, record-keeping is still mixed with foundation activities, and there is no reporting structure that separates principal and revenue. This impacts on limites finansial information, the difficulty of measuring the performance of waqf management periodically, and weakening of potential trust of potential donors/investors. In fact, previous research shows that the consistent application of waqf accounting standards contributes significantly to increasing trust and management of productive waqf [24][1].

Maqasid Syariah Perspective and Sustainability Reporting

From a maqasid sharia perspective, forest waqf management must be able to:

- Safeguarding waqf assets (hifzh al-māl),
- Safeguarding the soul and social benefit (hifzh al-nafs), and
- Protecting the environment as a mandate from Allah (hifzh al-bi'ah) [22][26].

This study emphasizes the importance of sustainability reporting for waqf institutions, which integrates financial, social, and environmental information [23][8]. In the context of the Ngembat Waqf Forest, several indicators that should be reported include: number and type of trees planted, area restored, Carbon sequestration, water and soil quality estimates, number of beneficiaries, and the amount of waqf funds managed, their allocation and use per program. This kind of integrated reporting will clarify the relationship between waqf financial management and its real impact on the environment and society, and emphasize that waqf management is carried out as a trust that is accountable before humans and Allah [26][15].

Green Waqf Finance Model in Ngembat Waqf Forest

In response to the financing and reporting weaknesses identified in the empirical findings, this study develops a Green Waqf Finance Model tailored to the context of the Ngembat Waqf Forest. The model is designed as an integrated framework that aligns Islamic social finance principles with environmental sustainability objectives, positioning the waqf forest as the central operational entity through which waqf assets are transformed into long-term ecological and socio-economic benefits.

Figure 2. Green Waqf Finance Model in Ngembat Waqf Forest

Conceptually, the model places the waqf forest at the core of the system, operating under the overarching normative framework of the Sustainable Development Goals (SDGs) and maqasid sharia. Waqf assets originate from wakif in the form of land endowments and cash waqf, which are entrusted to the waqf forest for productive management oriented toward forest conservation. This productive management function emphasizes the preservation of waqf assets while ensuring that their benefits are continuously generated and distributed in a manner consistent with sharia principles [1][15]. In this structure, the waqf forest serves as a conduit that translates religious endowments into tangible sustainability outcomes.

At the operational level, the model directs waqf forest management toward two interrelated outcome domains, namely forest conservation and community empowerment [3][6]. Forest conservation represents the primary ecological output of the model, focusing on ecosystem rehabilitation and the prevention of deforestation through sustainable land management practices [19]. These activities are aimed at restoring environmental functions, protecting biodiversity, and strengthening the ecological resilience of the forest area. At the same time, community empowerment constitutes the socio-economic output of the model, emphasizing the development of green economy programs and community-based management mechanisms. Through this approach, local communities are actively involved in forest stewardship and benefit directly from sustainable economic opportunities linked to conservation activities [24][8].

The integration of conservation and empowerment within the waqf forest framework reflects the fundamental logic of Green Waqf Finance, whereby every unit of waqf land and every financial contribution is systematically directed toward dual benefits: environmental preservation and the strengthening of the people's economy [29]. Rather than treating conservation and economic objectives as separate or competing goals, the model demonstrates their mutual reinforcement within a sharia-compliant governance structure. This integration ensures that ecological sustainability is achieved alongside social inclusion and economic resilience.

From a financing and governance perspective, the model allows for the mobilization of waqf assets not only through traditional individual donations but also through more diversified funding

mechanisms, including project-based cash waqf, collaboration with Islamic financial institutions, and corporate philanthropic contributions aligned with green corporate social responsibility initiatives. All assets and funds are managed by the nazhir within a dedicated waqf forest management structure, supported by sharia-compliant governance, accountability mechanisms, and sustainability-oriented management practices [30]. This institutional arrangement strengthens the long-term viability of the waqf forest by ensuring that conservation and empowerment activities are supported by a stable and transparent financing architecture.

The Green Waqf Finance Model also operates as a dynamic sustainability cycle [28]. Waqf assets provided by wakif function as inputs that are processed through productive waqf forest management activities, encompassing conservation and community empowerment initiatives. These processes generate outputs in the form of restored forest ecosystems and empowered local communities, which in turn produce broader outcomes aligned with the SDGs and maqasid sharia [1][19]. As these outcomes become visible through improved environmental conditions and socio-economic benefits, they contribute to increased trust among wakif and other stakeholders. This trust acts as a feedback mechanism that encourages additional endowments and sustained participation, thereby reinforcing the continuity of the waqf financing cycle.

The implications of this model for sustainability are significant. Economically, the integration of conservation with community-based green economic activities creates opportunities for sustainable livelihoods and positions productive waqf as a long-term economic buffer for local communities [22]. Ecologically, the allocation of waqf resources to forest rehabilitation and protection directly contributes to environmental quality improvements, including carbon sequestration, water resource protection, and biodiversity conservation. Socially and institutionally, the active involvement of communities and the application of sharia-compliant governance enhance social cohesion, accountability, and trust in waqf institutions [7][8][15]. In this way, the Green Waqf Finance Model addresses the fundamental challenges observed in the field, particularly the absence of a long-term financing architecture and the weakness of integrated sustainability-oriented governance in waqf forest management.

Research Outputs

The output of this research is aimed at making a tangible contribution to the development of knowledge and practice in waqf management in Indonesia, particularly in the areas of sharia accounting and sustainable financing. One of the main outputs is a conceptual model for waqf forest management financing based on sharia accounting, developed as a framework for managing waqf forest assets productively and in accordance with sharia principles. This model is designed to facilitate the funding, reporting, and distribution of waqf benefits with an accountable and efficient approach.

Furthermore, this research also produces recommendations for designing waqf financial reports integrated with information on environmental impacts. This reporting design strengthens the accountability of nazhir (Islamic trustee) and transparency in the management of waqf assets with ecological impacts, in accordance with the values of maqasid sharia and the triple bottom line principle. This is expected to serve as a reference for future waqf financial reporting practices.

this research will map the potential for developing Green Waqf Finance as part of a strategic national productive waqf policy. The research findings are expected to serve as a basis for consideration by regulators, waqf institutions, and academics in promoting the integration of Islamic social finance and the national sustainability agenda. To strengthen knowledge dissemination, all research findings will be presented in scientific articles and targeted for publication in reputable journals indexed by SINTA, as a scientific contribution to the global literature on Islamic accounting and the Islamic green economy.

5. CONCLUSIONS

This study concludes that the application of the Green Waqf Finance concept to waqf forests constitutes an innovative and feasible approach for financing sustainable environmental conservation while simultaneously supporting the economic empowerment of surrounding communities. By adopting a green waqf scheme, waqf assets can be managed productively to support forest conservation and generate long-term socio-economic benefits, thereby fulfilling religious, social, and economic objectives in an integrated manner [7][8]. These findings reinforce the argument in the literature that productive waqf can effectively integrate social welfare and ecological sustainability to enhance community well-being and environmental resilience.

The findings further demonstrate that green waqf implementation is closely aligned with the Sustainable Development Goals (SDGs) and the maqasid sharia framework. Utilizing waqf as a financing instrument for environmental conservation directly contributes to the achievement of SDG targets related to climate action and the protection of terrestrial ecosystems, while at the same time fulfilling the sharia objective of delivering broad societal benefits. This confirms the strategic relevance of waqf as an instrument for sustainable socio-economic development within an Islamic ethical and governance framework [19][23].

This study also highlights the central role of governance, accountability, and risk management in ensuring the effectiveness and sustainability of green waqf initiatives [29][26]. Transparency and accountability on the part of nazhir (waqf managers) are critical in strengthening public trust and enhancing the performance of waqf fund management [26]. Accordingly, consistent implementation of sharia accounting standards particularly PSAK 112 at the national level and AAOIFI guidelines at the international level—is essential to ensure standardized, transparent, and credible waqf financial reporting. In addition, adequate regulatory and supervisory support is required to ensure that green waqf practices remain within the sharia framework and achieve their intended objectives [1].

From an academic perspective, this research contributes to the advancement of Islamic social finance literature by providing new conceptual insights and empirical evidence on the role of waqf in financing environmental conservation. By extending previous studies on sustainable waqf development, this research demonstrates how green waqf can function as a bridge between Islamic accounting, sustainability reporting, and environmental governance [3] [6]. Practically, the findings suggest that the integration of digital technologies—such as sharia crowdfunding platforms and blockchain-based reporting systems—can enhance the efficiency, transparency, and inclusiveness of waqf fund management [29]. Furthermore, continued innovation in sharia financial instruments, including blended finance models that combine green waqf with other Islamic philanthropic funds, is necessary to expand the scale and impact of green waqf initiatives. Through these measures, green waqf has the potential to emerge as a strategic and sustainable financing solution for environmental protection and climate change mitigation, particularly in the Indonesian context.

6. ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to the Ma'arif Education and Social Foundation (YPM) Sidoarjo and Universitas Ma'arif Hasyim Latif (UMAHA) for their institutional support and internal research funding that made this study possible. The authors also acknowledge the valuable assistance and cooperation of the waqf forest management team in Ngembat Village, Gondang District, Mojokerto Regency, for providing access, data, and insights throughout the research process. All views and conclusions presented in this article are solely those of the authors and do not necessarily reflect the official position of the funding institution.

7. REERENCES

[1] D. Ascarya, & Yumanita, "Waqf for green economy: Developing sustainable Islamic social finance instruments," *J. Islam. Econ.*, vol. 13, no. 1, pp. 20–34, 2022.

[2] R. Nasution, A., & Rahim, "Reporting of productive waqf from a sharia accounting perspective," *Indones. Sharia Account. J.*, vol. 7, no. 1, pp. 35–50, 2023.

[3] Indonesian Institute of Accountants., *Statement of Sharia Financial Accounting Standards No. 112*, Waqf Accou. Jakarta: IAI, 2021.

[4] UNDP & IDB., "Islamic social finance report: Leveraging zakat and waqf for SDGs," Jeddah: IDB–UNDP, 2020.

[5] Muhammad, "Manajemen Dana Bank Syariah," Yogyakarta.: Pustaka Setia., 2018.

[6] AAOIFI, *Shari'ah standards: Waqf accounting & governance. Accounting and Auditing Organization for Islamic Financial Institutions.* 2022.

[7] & A. R. Hassan, R., "Accounting for waqf institutions: Issues and challenges.," *Int. J. Islam. Bus. Ethics,* vol. 4, no. 1, pp. 1–15, 2019.

[8] M. Shaikh, S. A., Abideen, Z., & Saeed, "Sustainability reporting in Islamic non-profit institutions: A conceptual framework," *J. Islam. Account. Bus. Res.*, vol. 12, no. 4, pp. 612–632., 2021.

[9] A. Khan, M., Khalid, R., & Rehman, "Blockchain-based waqf management: A path to transparency and trust.," *Int. J. Islam. Middle East. Financ. Manag.*, vol. 16, no. 1, pp. 102–118, 2023.

[10] R. Zainuddin, S., Mustapa, M., & Haron, "Natural capital and waqf accounting: Towards a new model of Islamic environmental reporting," *Asian J. Account. Perspect.*, vol. 13, no. 2, pp. 60–78, 2020.

[11] M. Shiddiqy, "Nazir capacity analysis and cooperation in productive waqf management," *J. Islam. Philanthr. Soc. Financ.*, vol. 1, no. 2, pp. 45–60., 2022.

[12] OECD., "Mobilizing green investment in emerging economies," Paris: OECD Publishing, 2021.

[13] Climate Bonds Initiative., "Green sukuk: A new frontier in Islamic and environmental finance.," 2022.

[14] Ministry of Finance of the Republic of Indonesia, *Green Sukuk Allocation and Impact Report 2021*. Jakarta, 2021.

[15] M. Farooq, M., & El-Gamal, "Integrating impact metrics into Islamic social finance reporting," *Int. J. Islam. Middle East. Financ. Manag.*, vol. 15, no. 4, pp. 512–530, 2022.

[16] S. Dusuki, A.W., & Bouheraoua, "The framework of Maqasid alShariah and its implications for Islamic finance," *ISRA Res.*, 2011, doi: https://doi.org/10.22059/isra.2011.21.1623.

[17] M. U. Chapra, "The Islamic vision of development in the light of Maqasid al-Shari'ah," *Islam. Res. Train. Inst.*, 2008.

[18] M. Kahf, "Waqf and its socio-economic role," *Islam. Res. Train. Inst. Work. Pap.*, p. 422, 2003.

[19] M. Obaidullah, "Reviving waqf for sustainable development," *IRTI–IDB Work. Pap. Ser.*, 2015.

[20] D. Dhuafa., "Report on the development of waqf sukuk for socio-ecological projects," in *Dompet Dhuafa Productive Waqf Division*, Jakarta, 2021.

[21] M. Asutay, "Islamic finance, social capital and sustainable development: The role of waqf. Review of Islamic Economics," 2020.

[22] S. Dusuki, A.W., & Bouheraoua, "The framework of Maqasid alShariah and its implications for Islamic finance.," *ISRA Res. Pap.*, 2011.

[23] R. Zainuddin, S., Mustapa, M., & Haron, "Natural capital and waqf accounting: Towards a new model of Islamic environmental reporting," *Asian J. Account. Perspect.*, vol. 13, no. 2, pp. 6–78, 2020.

[24] M. Hasan, "Islamic accounting for waqf: Principles and practices," *J. Islam. Account. Bus. Res.*, 2020.

[25] A. As-Sabiqun, AA, Rahmah, A., & Lubis, "Sharia-based integrated reporting: A conceptual framework," *J. Islam. Account. Bus. Res.*, vol. 12, no. 3, pp. 456–470, 2021.

[26] S. Kamla, R., & Gallhofer, "Islamic accounting and sustainability: Towards a moral economy.," *Accounting, Audit. Account. J.*, vol. 25, no. 2, pp. 221–246., 2012.

[27] J. Elkington, *Cannibals with forks: The triple bottom line of 21st century business.* Capstone Publishing, 1997.

[28] UNDP & BWI, *Green Waqf Framework*. Jakarta: United Nations Development Programme & Badan Wakaf Indonesia, 2022.

[29] N. Buana, G. K., & Dennehy, "Islamic finance going digital: Blockchain as a tool to catalyze multi-billion waqf for SDGs," 2019.

[30] H. Elasrag, "Green waqf: Sustainable development through Islamic finance," *Islam. Econ. Stud.*, vol. 24, no. 2, pp. 191–209, 2016.