

Waqf, Zakat, and Sadaqah for Environmental Empowerment: An Islamic Approach to Sustainable Development

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Abstract

This article examines the potential of Waqf, Zakat, and Sadaqah (ZISWAF) as Islamic philanthropic instruments for environmental empowerment and support of the Sustainable Development Goals (SDGs). The study identifies a significant gap between the vast potential of ZISWAF funds in Indonesia amounting to trillions of Rupiah and the increasingly urgent environmental challenges such as air pollution, water crises, and deforestation, particularly in Central Java. Using a descriptive qualitative approach through a literature study, this article proposes an innovative synergy model of ZISWAF, referred to as Green ZISWAF, as a sustainable financing solution for environmental programs. The novelty of this study lies in formulating an integrated Green ZISWAF framework that incorporates community empowerment and intergenerational justice, distinguishing it from previous studies that tend to focus solely on financing mechanisms. This article aims to contribute conceptual insights by offering a roadmap for implementing Green ZISWAF to achieve sustainable development goals grounded in Islamic values.

Keywords: Waqf, Zakat, Sadaqah, Green ZISWAF, Environmental Empowerment, Sustainable Development, Indonesia.

Introduction

Environmental issues have become a global crisis that threatens the sustainability of life on earth. A report by the United Nations Environment Programme (UNEP) confirms that climate change, loss of biodiversity, and pollution are three interrelated planetary crises that require massive and innovative financing solutions (UNEP, 2024). In Indonesia, these environmental challenges are becoming increasingly apparent. Data from the National Disaster Management Agency (BNPB) shows an increase in the frequency and intensity of hydrometeorological disasters, such as floods and droughts, which are greatly influenced by environmental damage (BNPB, 2025). Specifically, Central Java Province faces serious problems related to water crises, air pollution, and land degradation. In 2025, Central Java experienced 24 disaster events, including floods, extreme weather, and drought (BNPB, 2025). Central Java Open Data also recorded 70 datasets related to the environment, indicating the complexity of the problems faced (data.jatengprov.go.id, 2025).

On the other hand, Indonesia has tremendous potential for Islamic philanthropy through ZISWAF. The National Zakat Agency (BAZNAS) noted that the potential for zakat funds in

Indonesia in 2023 is estimated to reach IDR 33 trillion, with a continuous increase in realization (BRIN, 2024). Overall, the collection of Zakat, Infak, Sedekah, and Other Religious Social Funds (ZIS-DSKL) in the second half of 2024 reached Rp 26.13 trillion, showing rapid growth of 68.2% (Kemenag, 2024). The potential for waqf is also no less significant. Waqf, which is perpetual and productive, has a strategic role in long-term financing for sustainable projects (Ramadhan, 2025). The gap between the large potential of ZISWAF funds and the financing needs to overcome the environmental crisis is the main focus of this article.

Previous studies have extensively discussed the role of ZISWAF in poverty alleviation and the achievement of SDGs in general (Dirie, Alam, & Maamor, 2024). Several studies have also begun to examine the concepts of Green Zakat and Green Waqf (Muhibuddin, 2025), (Shahmi, 2025). However, the identified research gaps are: a. Lack of an Integrated Framework: There is no comprehensive model that synergistically integrates Zakat, Waqf, and Sadaqah (Green ZISWAF) for specific and measurable environmental empowerment. b. Focus on Financing: Most studies focus on the financing aspect without exploring the aspects of community empowerment and intergenerational justice, which are at the core of Islamic teachings and sustainable development.

The novelty of this article is: a. Proposing the concept of Green ZISWAF as an integrated framework for environmental financing and empowerment, b. Presenting an implementation model that links ZISWAF with environmental programs oriented towards intergenerational justice, ensuring that environmental benefits are not only felt today but also by future generations. The objectives of this article are: a. To analyze the concept and potential of ZISWAF in the context of environmental empowerment and SDGs, b. To identify gaps in research and practice in the use of ZISWAF for environmental issues, c. To formulate the Green ZISWAF framework as an innovative Islamic approach to sustainable development.

Islamic philanthropy, represented by ZISWAF, is a social financial system that aims to achieve social justice and community welfare. Zakat: An obligation on certain assets paid by wealthy Muslims to eight categories of recipients (asnaf). Zakat serves as an instrument of wealth redistribution and poverty alleviation (Dirie, Alam, & Maamor, 2024). Waqf: The retention of ownership rights over objects (al-'ain) in order to give away their benefits (al-manfa'ah) in perpetuity. Waqf has great potential for financing long-term and sustainable projects (al Jurjani, cited in Tamzis, 2024). Sadaqah (Infak/Alms): Voluntary giving that includes infak (obligatory or sunnah) and alms (sunnah), which is flexible and can be directed to various needs, including the environment.

The concept of Islamic eco-theology emphasizes that humans are khalifah (mandate holders) on earth, responsible for maintaining the balance of nature (mizan). Environmental preservation is an integral part of worship (UNEP, 2025). Intergenerational justice is a core principle in sustainable development, which demands that the current generation not sacrifice the ability of future generations to meet their own needs. The perpetual nature of waqf is very much in line with this principle, making it an ideal instrument for long-term conservation (Faizi, Kusuma, & Widodo, 2024).

First, Dirie, Alam, & Maamor (2024), Islamic social finance for achieving sustainable development goals: a systematic literature review. The results of the study conclude that ZISWAF contributes to SDGs, but implementation for the environment is still limited. This study only focuses on a systematic literature review and does not propose an integrated Green ZISWAF implementation model. Second, Faizi, Kusuma, & Widodo (2024), Islamic green

finance: Mapping the climate funding landscape in Indonesia. This study identifies the potential for Islamic green finance, including green sukuk and green waqf, recognizes the role of green waqf in Indonesia, and focuses on green finance broadly (including sukuk), rather than on the synergy between ZISWAF and empowerment aspects. Third, Ramadhan (2025), Zakat and Waqf Synergies to Accelerating Sustainable Development Goals. The synergy of zakat and waqf is effective in overcoming poverty and social inequality. This study highlights the concept of zakat and waqf synergy, without specifically discussing environmental issues and intergenerational justice.

Fourth, Shahmi (2025), Energy Waqf and the Environmental Crisis: Advancing Sustainable Development. This study proposes energy waqf as an innovative solution to the environmental crisis through renewable energy. The study acknowledges the role of waqf in environmental solutions (renewable energy) and focuses only on waqf instruments and the energy sector, not including zakat and sadaqah. Fifth, Farabi, Kurniadi, & Dasilva (2025), Islamic Banking Finance and Environmental Sustainability: Sector-Level Analysis from Indonesia. The results of the study state that Islamic banking finance in Indonesia has the potential to support environmental sustainability. This study highlights the role of Islamic finance in Indonesia for the environment, focusing on Islamic banking (commercial finance), rather than social philanthropy (ZISWAF). Sixth, Ma, Y., & Sukmana, R. (2025). ... from Islamic social finance and sustainable development goals discourse: review and bibliometric analysis on future directions for Zakat, Waqf and Islamic. This study finds a trend in the use of waqf for ecological projects such as Waqf woods in Indonesia. This study uses the case study of Waqf woods in Indonesia as evidence of practice and is more of a bibliometric and trend analysis rather than a model formulation.

Seventh, Malini (2021), Islamic bank sustainability in Indonesia: Value and financial performances based on social responsibility and green finance. This study found that Islamic banks need to integrate social responsibility and green finance for sustainability. This study underlines the importance of green finance and social responsibility, focusing on the performance of Islamic banks rather than philanthropic instruments. Eighth, Fahmi (2025), Islamic Social Finance and Environmental Sustainability: A Critical Review of Policy and Practice. This study reviews the potential and challenges of using Islamic Social Finance (ISF) for the environment. This study recognizes the potential of ISF (including ZISWAF) for the environment and is a critical review of policy and practice, not proposing an operational framework. Ninth, Muhibuddin (2025), Mobilizing Green Zakat and Green Waqf for the Economy of the Ummah. This study describes good practices of Green Zakat (waste management, organic farming) and Green Waqf (conservation, renewable energy) in Indonesia. This study provides data on good practices and examples of implementation in Indonesia, and is in the form of an opinion/popular article, not academic research with theoretical model formulation. Tenth, Andayani (2025), Assessing the financial sustainability of micro waqf banks. This study evaluates the financial sustainability of micro waqf banks in Indonesia, recognizing the role of waqf in microeconomic empowerment and focusing on financial and institutional aspects rather than environmental aspects.

This study is similar to previous studies in that all previous studies recognize the great potential of Islamic philanthropy instruments (Zakat and Waqf) in supporting sustainable development goals, including environmental aspects. There is a consensus that Indonesia is a leader in Islamic social finance innovation, including in the context of green finance and green

waqf. The difference is that this study goes beyond previous studies by a. Integrating Three Instruments: Developing a Green ZISWAF framework that synergizes Zakat (for short-term empowerment), Waqf (for long-term and perpetual infrastructure financing), and Sadaqah (for operational flexibility and rapid response), b. Focus on Intergenerational Justice: Emphasizing the dimension of intergenerational justice as a philosophical and operational foundation, which has not been the main focus in previous studies, c. Environmental Empowerment Model: Proposing a model that not only focuses on financing but also on empowering the community as subjects of environmental conservation.

Methods

This study uses descriptive qualitative research with a library research approach. This approach was chosen because the main objective of the article is to formulate an innovative conceptual framework and theoretical model based on a synthesis of Islamic concepts, empirical data, and previous research findings. The approach used is normative-empirical. This involves analyzing the concepts of ZISWAF and Islamic Ecotheology as the philosophical and ethical basis for environmental empowerment, then using data on the development of ZISWAF and environmental issues in Indonesia (especially Central Java) as well as findings from previous studies as an empirical basis for identifying gaps and formulating solutions. Data was obtained from credible official reports (BAZNAS, Ministry of Religious Affairs, BNPB, UNEP, World Bank) related to ZISWAF potential, implementation, environmental data, and reputable scientific journal articles (national and international) published in the last 10 years (2015-2025) discussing ZISWAF, green finance, SDGs, and the environment.

Data collection techniques using documentation and content analysis, with the following steps: Keyword Identification: Using keywords such as “ZISWAF”, “Waqf”, “Zakat”, “Environment”, “Green Finance”, ‘SDGs’, and “Indonesia”. Content Analysis: Analyzing document content to identify: (a) Basic concepts and theories; (b) Quantitative data on ZISWAF development and environmental issues; (c) Findings, gaps, and recommendations from previous studies. Data analysis was conducted qualitatively and inductively through three stages: Data Reduction: Summarizing and sorting data relevant to the research focus (ZISWAF and the environment). Data Display: Presenting data in the form of narratives, tables (for literature reviews), and conceptual models. Conclusion Drawing/Verification: Drawing conclusions and formulating the Green ZISWAF framework as an innovative solution, verifying conclusions with normative foundations and empirical findings. The data presentation is presented in the form of a scientific article with a systematic structure (Abstract, Introduction, Literature Review, Methodology, Results, Discussion, Conclusion, References), using academic writing style and equipped with accurate data source references.

Results

The main findings of this study are the confirmation of three major gaps between the potential of ZISWAF and environmental needs, as well as the identification of three pillars that must be integrated to form an effective Green ZISWAF framework.

The Potential-Realization Gap

There is a significant gap between the large potential of ZISWAF funds (potential zakat of IDR 33 trillion/year) and the realization of the distribution of these funds to the environmental sector. Although there have been Green Zakat and Green Waqf initiatives

(Muhibuddin, 2025), the majority of ZISWAF distribution is still focused on consumptive programs and conventional microeconomic empowerment (Andayani, 2025). The environmental sector, which requires long-term and high-risk financing, has not been a top priority.

The Time Horizon Gap

Zakat, which is annual and consumption-oriented, is less than ideal for financing long-term environmental projects (e.g., reforestation, clean water infrastructure development). Conversely, Wakaf, which is perpetual, is very suitable for conservation and green infrastructure projects, but the realization of productive wakaf for the environment is still low (Shahmi, 2025). This gap shows the need for synergy between Zakat (for operational costs and initial empowerment) and Wakaf (for asset financing and sustainability).

The Integration Gap

Practices in the field show that Zakat, Waqf, and Sadaqah are often managed separately, both institutionally and programmatically. The absence of an integrated framework hinders the optimization of resources. For example, zakat funds can be used to train communities in organic farming (Green Zakat), while waqf funds can be used to purchase conservation land or build renewable energy facilities (Green Waqf). This synergy has not been systematically institutionalized.

Three Pillars of the Green ZISWAF Framework (Novelty)

Based on gap analysis and literature synthesis, this study finds that the Green ZISWAF framework must be built on three main pillars to achieve sustainable environmental empowerment: The first pillar's main instrument is Waqf Green Asset Financing (Money & Land) with a program focus on acquiring conservation land, building clean water/sanitation infrastructure, and installing renewable energy (Shahmi, 2025). In the long term/perpetually, this ensures the availability of natural resources for future generations. The second pillar, its main instrument is Ecological Empowerment of Zakat & Sadaqah with a program focus on implementing organic farming training programs, community-based waste management, environmental education, and program operational costs. In the short/medium term, it will change the behavior and capacity of the community to protect the environment. The third pillar, the main instrument is Sustainable Management of Sadaqah & Zakat with a program focus on green technology research and development, environmental audits, impact monitoring, and policy advocacy. Systemically, it will create a transparent and accountable system for program sustainability.

Discussion

Findings regarding three gaps (Potential-Realization, Time Frame, and Integration) underscore that the main challenge in utilizing ZISWAF for the environment is not theological, but rather managerial and institutional.

Synergy between Zakat and Waqf for Green Infrastructure

The discussion on the Time Frame Gap found a solution in the synergy between Zakat and Waqf. Zakat, with its requirement to be distributed immediately, can serve as working capital for ecological empowerment programs (Pillar 2). For example, zakat funds can finance seedlings, training, and initial wages for reforestation or organic farming programs in Central Java. Once the program is running and generating economic value, the resulting assets (e.g., bore wells, solar panel installations) can be donated (Green Waqf) to ensure the sustainability

of their benefits. This approach is in line with Ramadhan's (2025) view, which emphasizes the synergy between Zakat and Waqf for SDGs, but this article expands it to include the environmental dimension. By making environmental assets mauquf (waqf property), the principle of intergenerational justice is fulfilled, because these assets cannot be sold or inherited, but must continue to provide environmental and social benefits in perpetuity (Faizi, Kusuma, & Widodo, 2024).

Community Empowerment as Subjects of Conservation

The Ecological Empowerment Pillar (Pillar 2) is key to addressing environmental issues at the local level, such as those occurring in Central Java. The Green Zakat program, which focuses on waste management and organic farming (Muhibuddin, 2025), should be encouraged. This empowerment transforms communities from recipients of aid to subjects of conservation who have the awareness and economic capacity to protect the environment. For example, in drought-prone areas in Central Java, zakat funds can be used to build communal rainwater harvesting systems, and communities can be trained to manage them. These communal assets are then donated as waqf. Thus, ZISWAF not only provides assistance but also creates sustainable ecological independence.

Governance and Innovation (Green ZISWAF Framework)

To address the Integration Gap, a structured Green ZISWAF framework is needed. This framework must include: a. Green Accountability Standards: ZISWAF institutions (LAZ and Nazhir) must adopt reporting standards that measure the environmental impact of their fund distribution, in line with ESG (Environmental, Social, Governance) principles (Malini, 2021). b. Product Innovation: Develop cash waqf products explicitly intended for environmental projects, such as Green Sukuk Waqf or Cash Waqf for Green Energy (Shahmi, 2025). c. Cross Sector Collaboration: Synergy between ZISWAF institutions, local governments (e.g., Central Java Provincial Government), and the private sector that has an ESG commitment (Farabi, Kurniadi, & Dasilva, 2025).

Best Solution: Green ZISWAF Implementation Roadmap

The best solution resulting from this research is a Green ZISWAF implementation roadmap oriented towards intergenerational justice and environmental empowerment in Indonesia:

Table 1 XXXX (Font TNR, 10)

Stage	Main Focus	Role of ZISWAF	Success Indicators
Initiation (1-2 Years)	Education and Pilot Project	Sadaqah: Environmental awareness campaign and rapid fundraising. Zakat: Financing training and community assistance.	Increase in Green ZISWAF funds (5% of total funds), 3 successful Green Zakat pilot projects (e.g., organic farming).
Institutionalization (3-5 Years)	Product and Institutional Development	Waqf: Launch of Green Waqf products (money/property) for asset financing. Zakat: Integration of environmental programs into the 8 asnaf (e.g., gharimin who are in debt due to environmental disasters).	Establishment of a Green ZISWAF unit in the main LAZ/Nazhir, 1 green infrastructure project (water/energy) based on waqf.
Sustainability (5+ Years)	Intergenerational Justice and Scalability	Waqf: Becoming the main source of financing for long term conservation (waqf forests, renewable energy). Integrated	Financing model. Improved environmental quality (water/air quality index), Green ZISWAF becoming 15% of total

Conclusion

This article concludes that Waqf, Zakat, and Sadaqah (ZISWAF) have enormous potential and are theologically consistent with environmental empowerment efforts and the achievement of Sustainable Development. The main gaps lie in managerial aspects, namely: (1) the Potential Realization Gap, (2) the Time Frame Gap, and (3) the Integration Gap.

To address these gaps, this article proposes an integrated Green ZISWAF framework, built on three pillars: Green Asset Financing (Waqf), Ecological Empowerment (Zakat & Sadaqah), and Sustainable Governance (Sadaqah & Zakat). By implementing a roadmap oriented towards intergenerational justice, Green ZISWAF can become an innovative and effective Islamic approach to overcoming the environmental crisis, especially in Indonesia.

Recommendations

For ZISWAF Institutions: Immediately formulate green accountability standards and launch Green Waqf products specifically for conservation and renewable energy projects. For the Government (Ministry of Religious Affairs/BAZNAS/BPWK): Promote regulations that facilitate the synergy of Zakat and Waqf for environmental purposes and provide incentives for wakif and muzakki who channel their funds to green programs. For Further Researchers: Conduct case study-based empirical research to measure the social, economic, and environmental impacts of the Green ZISWAF pilot project that has been initiated, particularly in regions with urgent environmental problems such as Central Java.

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