



## **Zakat-Based Clean Water Programs and Their Contribution to SDG 6: A Case Study of LMI Ponorogo Indonesia**

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### **Abstract**

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This research is motivated by the limited public access to clean water in several areas of Ponorogo, Indonesia, as well as the lack of sustainable zakat-based empowerment programs. Specifically, it addresses sixth goals on access to clean water and sanitation. The study aims to analyze how the distribution of zakat, particularly through clean water programs, can support the achievement of the SDGs. This study employs a descriptive analysis and utilizes primary data from interviews with employees at LMI Ponorogo. The results indicate that productive distribution, especially through the construction of boreholes and infiltration wells - has a significant impact on improving community access to clean water, while also providing added value in the areas of education and the environment. The findings of this study suggest that zakat is not merely an instrument of consumptive philanthropy but can also be optimized as a mechanism for sustainable development with systemic impact.

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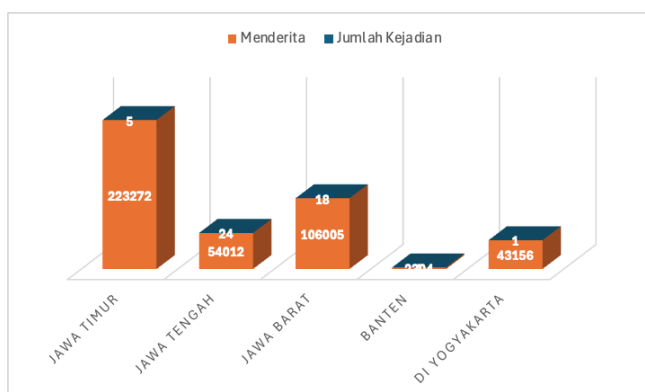
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## INTRODUCTION

Indonesia is one of the countries with the largest Muslim populations in the world, second only to Pakistan. By 2024, the total Muslim population in Indonesia is projected to reach 235,200,000. Consequently, Indonesia is expected to become a global hub for philanthropic funding. Zakat is a potential source of funds that can be used to improve the general welfare of society if managed properly; in other words, zakat has great potential in reducing social and economic inequality, as stipulated in Law of the Republic of Indonesia Number 38 of 1999. The potential of zakat funds in Indonesia, amounting to Rp. 327 trillion, should not be spent solely on consumptive programs. Instead, it can be directed toward programs that promote the achievement of sustainability goals, one of which is ensuring access to clean water and sanitation.

Access to clean water remains a real challenge in various regions of Indonesia, particularly in rural areas and regions with specific geographic conditions. Limited water sources, inadequate infrastructure, and the high cost of accessing clean water mean that some communities cannot access adequate water services. This situation impacts not only public health but also economic productivity and overall quality of life. Therefore, interventions are needed that go beyond short-term relief and provide sustainable solutions. Distributing zakat through community-based programs, such as providing clean water through the construction of drilled wells and infiltration wells, is an innovation that can have both immediate and sustainable impacts. Such programs not only meet basic community needs but also contribute to improved health, reduced economic burdens, and environmental preservation.



**Gambar 1.** Grafik Bencana Kekeringan di Pulau Jawa

Based on the data above, it is evident that drought and limited access to clean water remain challenges in several regions of Java. The data indicates that East Java has the highest number of people affected by drought, totaling 223,272 individuals across 5 drought events, followed by West Java with 106,005 people (18 events), Central Java with 54,012 people (24 events), and the Special Region of Yogyakarta with

43,156 people (1 event). Although the number of drought incidents does not always correlate directly with the number of affected residents, this data indicates that access to clean water remains a serious issue affecting the quality of life for communities. This situation suggests that providing clean water infrastructure is not solely the government's responsibility but also requires the involvement of various stakeholders, including Islamic philanthropic organizations. In this context, zakat can help address access to clean water through productive, sustainable programs. The use of zakat funds for the construction of boreholes, infiltration wells, and other supporting facilities not only helps meet the basic needs of the community but also supports the achievement of the Sustainable Development Goals (SDGs), particularly Goal 6, which emphasizes the importance of the availability and sustainable management of clean water and sanitation for all people.

Previous studies have increasingly recognized zakat as a strategic instrument of Islamic social finance that can contribute to the achievement of the Sustainable Development Goals (SDGs). Beyond its traditional role as a mechanism for wealth redistribution and poverty alleviation, zakat has been viewed as a tool for promoting inclusive and sustainable development. Several studies argue that zakat aligns closely with the core principles of the SDGs by supporting social welfare, reducing inequality, and enhancing community resilience through targeted social and economic interventions.

Empirical research has primarily focused on the contribution of zakat to SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health and Well-being), and SDG 8 (Decent Work and Economic Growth). Findings suggest that productive zakat programs can improve household income, support micro-enterprise development, enhance educational opportunities, and strengthen social protection for vulnerable groups. Recent studies have also highlighted the broader developmental role of zakat in improving human development outcomes and fostering sustainable economic growth. However, the dominant focus of the literature remains on economic empowerment and poverty reduction, with relatively limited attention given to environmental sustainability and basic service provision.

Despite the growing body of research on zakat and sustainable development, studies examining the role of zakat in supporting SDG 6 (Clean Water and Sanitation) remain scarce. Most existing research emphasizes productive business financing and direct social assistance, while the utilization of zakat for developing long-term social infrastructure has received limited scholarly attention. Therefore, this study contributes to the literature by exploring how zakat can be utilized to finance community-based clean water infrastructure, particularly through borehole and

infiltration well programs, and how such initiatives support sustainable development at the local level.

## RESEARCH METHOD

This study is a qualitative case study. This approach was chosen because the study aims to gain a deep understanding of the process of zakat distribution in the form of clean water supply programs and its contribution to the achievement of the Sustainable Development Goals (SDGs), particularly the sixth SDG. Qualitative methods allow researchers to comprehensively explore the meaning, processes, and context of program implementation—aspects that cannot be fully explained through quantitative approaches alone. This study took a sample from the Infaq Management Institution (LMI) located in Ponorogo, Indonesia, which was selected purposively because this institution has implemented zakat programs based on clean water provision, such as the construction of boreholes and infiltration wells, as part of its community empowerment strategy. This study focuses on analyzing the planning and implementation processes, as well as the program's impact on beneficiary communities and its relevance to SDG targets.

The data used in this study consisted of primary and secondary data. Primary data were obtained through in-depth interviews and field observations. The interviews were semi-structured to provide flexibility in gathering more in-depth information regarding program implementation and the benefits experienced by recipients. Observations aimed to complement and ensure that the information conveyed through the interviews could be confirmed directly in the field. Observations were conducted by observing the use of clean water facilities by the community. Meanwhile, secondary data were obtained from LMI's internal documents relating to the zakat empowerment program in the form of clean water provision.

Informants in this study were determined using purposive sampling, which involves deliberately selecting informants based on their involvement and knowledge of the program being studied. Key informants included LMI Ponorogo managers or staff directly involved in program planning and implementation, as well as beneficiaries (mustahik) who experienced the impact of the clean water provision program. This informant selection aimed to obtain a comprehensive perspective, from both the managers and beneficiaries' perspectives. The data were then analyzed using thematic analysis. This method was chosen because it is able to identify, group, and interpret the patterns of findings (themes) that emerged from the qualitative data. The analysis process was carried out through several stages: data reduction, coding, grouping themes, data presentation, and drawing conclusions.

## RESULT AND DISCUSSION

### *Zakat-Based Clean Water Program at LMI Ponorogo*

The Ponorogo Zakat Management Agency (LMI) has developed an innovative approach to zakat distribution through a clean water supply program as a community empowerment strategy. This program takes the form of constructing boreholes and infiltration wells in drought-prone areas. By 2024, LMI Ponorogo had built more than 20 boreholes spread across several subdistricts, such as Sawoo, Sooko, and Pulung. These areas were selected due to their geographical characteristics, including rocky soil conditions, limited surface water sources, and high community demand for clean water. The distribution of zakat in the form of borehole and infiltration well construction demonstrates that zakat is not only distributed as consumable aid but can also be directed toward sustainable empowerment. One implementation of the infiltration well program took place at the Al-Hikmah Islamic Boarding School in Ngrayun District. This program aims to collect rainwater so that it seeps back into the ground, thereby increasing groundwater reserves and reducing surface runoff. This zakat-based clean water program demonstrates the transformation of zakat's function from traditional patterns toward a model of sustainable social development.

Theoretically, zakat serves the functions of wealth redistribution and social protection. From an Islamic economic perspective, zakat is not only intended to transfer wealth from the muzakki to the mustahik, but also serves to reduce social inequality and create more equitable welfare. Therefore, the distribution of zakat in the form of short-term aid is insufficient to eliminate structural poverty. A productive zakat approach is necessary to transform mustahik from passive aid recipients into a community group that is empowered and resilient within the economic and social structure. Findings from the LMI Ponorogo support this view, as access to clean water is not merely temporary aid but a crucial foundation for improving the quality of life and household economic activities. Furthermore, this study aligns with the capability enhancement approach, which focuses on enhancing the basic capabilities of communities to carry out the functions of life in a dignified manner. Access to clean water enables households to meet domestic needs, maintain sanitation, save time spent searching for water, and reduce the cost of purchasing water. Thus, zakat functions as an instrument that expands the life choices of the poor, rather than merely increasing short-term consumption. This demonstrates that productive zakat can be positioned as an instrument of human development.

A number of previous studies have confirmed the role of zakat in supporting sustainable development. However, most of them still focus on issues of poverty, education, or productive economic empowerment. This study presents different findings by positioning zakat as an instrument that can drive sustainable development, particularly regarding the sixth point. In the literature, such findings are still rarely found in previous studies. In fact, the issue of water access is a multidimensional problem related to health, economic productivity, social resilience, and environmental sustainability. In this context, the findings from LMI Ponorogo expand the scope of the zakat discourse, shifting the focus from income and consumption assistance toward community-based social infrastructure financing. These research findings

also affirm that zakat empowerment is not limited to cash assistance or business capital but can also be used to build public facilities that directly improve the well-being of zakat recipients.

### ***Social and Economic Impacts and Contributions to the SDGs***

Research findings indicate that the zakat-based clean water program implemented by LMI Ponorogo not only yields technical benefits in the form of available water sources, but also creates broader social and economic impacts for the community. This demonstrates that when zakat is managed sustainably, it can become an instrument of community empowerment that encourages improvements in the quality of life. From the perspective of empowerment theory, development is not solely measured by the amount of assistance provided, but by the extent to which the intervention increases the community's capacity to meet its needs independently. The drilled well and infiltration well programs provide access to a basic resource, namely water. Through this resource, the community has the capacity to carry out domestic, economic, and social activities. Difficulty accessing water can also create a burden of time and energy, as family members must fetch water from distant locations or purchase it from other sources. After the drilled well and infiltration well programs, the community has easier and more adequate access to water. This change improves the comfort of life and strengthens the sense of security in meeting basic daily needs.

These findings align with social capital theory, which emphasizes the importance of cooperation, trust, and solidarity in community development. Joint management of water facilities encourages community participation, shared responsibility, and a sense of ownership of the public assets built. Thus, the benefits of the zakat program are not merely individual but also strengthen social cohesion and the collective capacity of the community. From an economic perspective, the availability of clean water contributes to reducing household expenditure burdens. Communities that previously had to purchase water or incur transportation costs to obtain it can redirect those expenditures toward other, more productive needs. Additionally, water availability supports household-scale economic activities, such as food businesses, small-scale farming, livestock rearing, and home-based production activities that require an adequate water supply. From an economic empowerment perspective, this situation demonstrates that access to basic services is a critical prerequisite for enhancing the productivity of the poor.

Previous literature has widely emphasized that zakat contributes to poverty reduction and increased income for beneficiaries through business capital assistance, entrepreneurship training, and microenterprise mentoring. Several studies also indicate that productive zakat can enhance the economic self-reliance of beneficiaries when accompanied by good governance. The findings of this study support these results but expand the perspective that economic empowerment does not always have to be achieved through cash grants. The provision of clean water as basic infrastructure is also a form of economic empowerment because it reduces living costs and opens opportunities for household productivity. In terms of health, access to clean water contributes to improved sanitation and environmental

hygiene. Clean water is essential for maintaining family health, preventing environment-related diseases, and supporting clean and healthy living habits. Therefore, the benefits of this program extend beyond the economic dimension to improving human capital through better health outcomes. Zakat-based clean water programs make a tangible contribution to the Sustainable Development Goals (SDGs), particularly the sixth SDG on access to clean water and sanitation. The construction of boreholes supports the target of increasing access to safe and affordable drinking water, while the construction of infiltration wells contributes to groundwater conservation and the sustainability of water resources. This demonstrates that zakat can serve as a relevant Islamic social finance instrument to support the global development agenda.

## CONCLUSION

This study shows that the optimization of zakat management, either productive or consumptive by LMI Ponorogo, especially through the borehole and infiltration well construction program, has significantly contributed positively to the achievement of Sustainable Development Goals (SDGs), especially on point 6: Clean Water and Sanitation. The program has not only succeeded in improving the community's access to clean water, but also brought profound educational, social, and ecological impacts.

Active involvement of local communities, data-based needs mapping, and synergy with various stakeholders make this program a best practice model in effective and sustainable zakat management. Although geographical and technical challenges are still faced, the success of this program proves that zakat not only acts as a spiritual and social instrument, but also as a lever for inclusive development based on Islamic values and social justice principles. Thus, zakat can be a strategic tool in supporting the global agenda of SDGs as well as realizing maqashid sharia in society.

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