

The Role of Zakat and Wetlands in South Kalimantan's Village Economy

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Abstract. Wetland areas are the majority characteristic of areas in South Kalimantan. Empowering and utilizing wetland areas is an important step to support development in South Kalimantan Province. One of the main contributors in developing and wetland economy and environment in South Kalimantan is the National Amil Zakat Agency (BAZNAS). BAZNAS implements rural economic development programs targeting *mustahik* (zakat recipients) through initiatives in livestock, agriculture, and community empowerment. This study aims to examine the role of zakat in encouraging village economic development and wetland utilization in South Kalimantan. This field research uses both primary and secondary data collected from three districts: Hulu Sungai Tengah, Barito Kuala, and Tanah Laut. The population consists of 92 *mustahik*, with a sample size of 47 *mustahik* involved in BAZNAS programs. Data analysis was conducted using Multiple Linear Regression, including coefficient of determinant and correlation analysis, model estimation, classical assumption testing, and hypothesis testing. The findings indicate that the distribution of zakat fund and the utilization of wetlands have a significant impact on improving the welfare of *mustahik*. The regression analysis yielded an F-statistic value of 20.832, which is greater than the critical value of 3.19, with a significance level of 0.000 ($p < 0.05$). This implies that the independent variables of zakat fund and utilization of paddy land contribute significantly to the improvement of *mustahik*'s income. The coefficient of determination (R^2) value of 48.1% indicates that these variables explain 48.1% of the variation in *mustahik* income, while the remaining 51.9% is influenced by other factors.

Keywords: Zakat, Wetland, Welfare, Mustahik

1 Introduction

The majority of areas in South Kalimantan are categorized as wetland environments. The empowerment and utilization of wetland areas in South Kalimantan Province is a main concern in supporting the economic development [1]–[3]. South Kalimantan, with its extensive river networks, swamps, and wetlands, relies heavily on these ecosystems for agricultural [4], fisheries, and community livelihood activities. However, sustainable utilization of these resources requires strategic interventions to enhance the welfare of local communities, especially those living in rural areas. One of institution that contributes significantly in this endeavor is the National Amil Zakat Agency (BAZNAS) of South Kalimantan Province.

BAZNAS has implemented *mustahik* economic development programs that aim to empower zakat recipients (*mustahik*) through initiatives in the livestock, agriculture, and community empowerment sectors especially in reduce poverty [5]. These programs not only provide financial assistance but also offer technical support and training, thus enabling *mustahik* to become more self-sufficient and active contributors to local economic growth. In the context of South Kalimantan, the integration of zakat with wetland resource management plays a crucial role in creating new economic opportunities and supporting sustainable rural development.

This research aims to explore the role of zakat in enhancing village economic development through effective wetland utilization in South Kalimantan. Specifically, this study investigates the impact of zakat fund distribution on *mustahik* welfare and examines how sustainable wetland utilization can further improve the economic outcomes of rural communities. By analyzing the effectiveness of these programs, this study seeks to provide insights into how zakat, as a social finance tool, can be optimized to support environmental sustainability and economic empowerment in wetland areas.

2 Methods

This study applies a quantitative research approach using field research to analyze the impact of zakat fund distribution and wetland utilization on the welfare of *Mustahik* in South Kalimantan. The research was conducted in three districts: Hulu Sungai Tengah, Barito Kuala, and Tanah Laut. The population consists of 92 *mustahik* who are beneficiaries of BAZNAS South Kalimantan's rural economic development program. A purposive sampling technique was used to select a sample of 47 *mustahik*, representing those actively involved in agricultural, livestock, and community empowerment initiatives.

Data sources include primary data collected through structured interviews and surveys, and secondary data from BAZNAS reports and related literature. The survey instrument was designed to collect information on the income, livelihood activities, and welfare status of *mustahik* before and after receiving zakat aid. In addition, data on wetland utilization practices were collected to analyze their role in supporting economic development.

The data were analyzed using Multiple Linear Regression analysis to determine the influence of the independent variables—zakat funds (X_1) and wetland utilization (X_2)—on the dependent variable, which is *mustahik* welfare as measured by income levels. The regression model used is as follows:

$$Y = \beta_0 + \beta_1 \cdot X_1 + \beta_2 \cdot X_2 + \varepsilon \quad (1)$$

Where:

Y	: Mustahik welfare (income)
X_1	: Zakat fund distribution
X_2	: Wetland utilization
β_0	: Constant
β_1, β_2	: Regression coefficients
ε	: Error term

The sample size of 47 is considered large enough to ensure the reliability of the regression model, eliminating the need for classical assumption testing. The significance of the regression coefficients was evaluated through the use of t-tests, to determine the individual impact of each independent variable on *mustahik* welfare. The results show that zakat fund distribution (X_1) has a regression coefficient (β_1) of 0.321 with a t-value of 3.221 and a significance level of 0.002, indicating a significant positive effect. Wetland utilization (X_2) has a regression coefficient (β_2) of 0.208, with a t-value of 2.108 and a significance level of 0.041, indicating a positive effect.

F-test was conducted to test the overall significance of the model. The F-statistic value of 20.832, with a significance level of 0.000, indicates that both independent variables significantly affect *mustahik* welfare. The coefficient of determination (R^2) is 48.1%, indicating that 48.1% of the variation in *mustahik* income is explained by zakat fund distribution and wetland utilization. The remaining 51.9% is influenced by other factors not included in the model. This methodological approach allows for a comprehensive analysis of the role of zakat and wetland resource management in supporting rural economic development in South Kalimantan.

3 Results and Discussion

The findings of this study provide evidence that the distribution of zakat, infaq, and shadaqah (ZIS) has a significant positive impact on economic growth in multiple regions, particularly in Indonesia. This outcome confirms the results of previous studies indicating that the optimal use of ZIS funds contributes to poverty alleviation, employment creation, and overall economic development [6], [7]. The impact of zakat on the economy can be seen from its role in increasing aggregate demand and household consumption, which in turn spurs the growth of small and medium enterprises (SMEs) and enhances the welfare of the lower-income population. This positive impact of zakat is inline with research findings by Mayes et.al [8]; Shaikh (2018) [9]; and Tartila (2023) [10].

Table 1. Result of Data Analysis

Variable	Regression coefficients (β)	t-value	Sig.
Zakat fund distribution (X_1)	0.321	3.221	0.002
Wetland utilization (X_2)	0.208	2.108	0.041
R^2	48.1%	-	-
F-statistic value	20.832	-	0.000

Panel data analysis conducted in this study shows that an increase in ZIS fund allocation is associated with a reduction in poverty rates and an increase in regional GDP, particularly in provinces with high levels of zakat collection and distribution. These findings corroborate with the empirical evidence presented by Surury, et al [11] who observed a similar trend in West Java during 2014-2019.

The results also reveal that the impact of ZIS is more prominent in regions where effective distribution mechanisms are in place, reflecting the importance of institutional management. In provinces with well-managed zakat institutions such as BAZNAS (Badan Amil Zakat Nasional) and private LAZ (Lembaga Amil Zakat), the funds were effectively allocated towards productive ventures, including entrepreneurship programs and skill development initiatives [12].

The positive influence of ZIS on economic growth highlights its potential as a socio-economic instrument within the Islamic economic system. The findings of this study suggest that ZIS, when efficiently managed and strategically allocated, has the potential to enhance economic performance by addressing income inequality and promoting social welfare especially farmer groups [13]. This conclusion is consistent with the theoretical perspectives proposed by Alam Choudhury & Syafri Harahap (2008) [14], who argued that zakat, as a redistribution mechanism, ensures a more equitable distribution of resources, thereby fostering sustainable economic development.

Furthermore, the role of zakat in alleviating poverty and boosting economic productivity is not limited to Indonesia. Similar patterns have been observed in other Islamic countries, such as Malaysia and Bangladesh, where zakat has been used to fund educational and health initiatives, thereby improving human capital and long-term economic outcomes [15]. These findings underscore the importance of expanding zakat management frameworks and integrating them into national economic policies.

Nevertheless, several challenges remain in the implementation of zakat as an economic policy tool. Variations in the effectiveness of zakat distribution across different regions, emphasizing the necessity for improved governance and monitoring systems. Further research is recommended to explore the role of digital technology to enhance the transparency and efficiency of zakat distribution, as well as to investigate the impact of zakat on other macroeconomic variables such as inflation and unemployment [16].

By addressing these challenges, zakat could become a more powerful instrument for achieving economic justice and prosperity in both developing and developed Islamic economies. Future studies could also explore comparative analyses of the impact of zakat across different economic settings to further understanding its full potential as a tool for economic empowerment and social welfare.

Based on previous research [17], [18], zakat has been proven as one of the effective financial instruments in reducing poverty and improving the welfare of *mustahik*. This study also supports those findings, where zakat significantly increases the income of *mustahik* in South Kalimantan. Additionally, the utilization of wetland as a sustainable natural resource also plays important role in local economic development [19].

Other than that, there is mentoring and training implemented by BAZNAS South Kalimantan with the following results.

Table 2. Frequency of BAZNAS Mentoring

Mentoring Criteria	Quantity	Description
Frequent	10	Mentoring is conducted more than 100 times
Moderate	13	Mentoring is conducted more than 40 times and less than 100 times
Rare	24	Mentoring is conducted less than 40 times

The data in the table present the frequency of mentoring based on three criteria: frequent, moderate, and rare. It reflects the intensity of BAZNAS mentoring, which varies in the number of meetings or activities. Based on the collected data, the “Frequent” criterion in BAZNAS mentoring recorded 10 times with total mentoring of 144 times. The “Moderate” criterion occurred 13 times with variations in mentoring totaling 48 times, 72 times, and 96 times. Meanwhile, the “Rare” criterion appeared 24 times with a frequency of 24 mentoring.

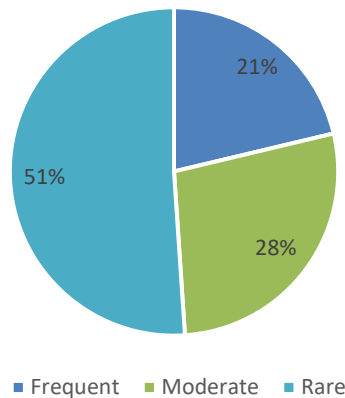


Fig. 1. Percentage of Mentoring by BAZNAS

Although the percentage of “Rare” criteria is the largest in BAZNAS mentoring, it does not mean that the mentoring is not successful. It represents different categories of *mustahik*, involved in agricultural, livestock, and community empowerment. The most mentoring by BAZNAS was done in agricultural sector.

Beside of mentoring, BAZNAS also gives training to *mustahik*. The following results of training conduted by BAZNAS.

Table 3. Frequency of BAZNAS Training

Training Criterion	Quantity	Description
Frequent	3	Training is conducted more than three times
Moderate	18	Training is conducted more than once
Rare	26	Training is conducted once

The table above describes the frequency of training based on same three criteria: frequent, moderate, and rare. The "Frequent" training category occurred 3 times, each with training conducted 5 and 6 times. The "Moderate" training category was recorded 18 times, with a frequency of 2 and 3 training sessions. Meanwhile, the "Rare" training category appeared 26 times, with training conducted only once. This table demonstrates the variations in training intensity received by participants based on the respective frequency criteria.

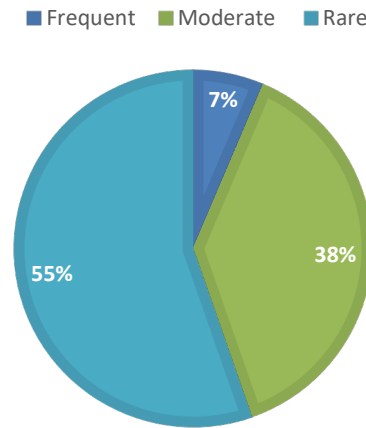


Fig. 2. Percentage of Training by BAZNAS

The percentage of “Frequent” criteria in BAZNAS training may seem the smallest, but it means BAZNAS has conducted training more 5-6 times to *mustahik*, especially in the agricultural sector. Based on the collected data, *mustahik* who receive mentoring and training from BAZNAS are very helped and grateful for the improvement in harvest yield of agricultural, livestock, and community empowerment. The findings of study by Maulida et al. (2018) also support the result of this study, the Zakat Community Development (ZCD) program that distributed by BAZNAS is also able to help *mustahik* and boots their welfare. The increasing harvest area, production, and productivity in agricultural sector can support regional development [20].

4 Conclusions

This research aimed to investigate the impact of zakat distribution and wetland environment utilization on the economic welfare of *mustahik* in South Kalimantan. The results of the study indicate that both zakat distribution and the utilization of the wetland environment have a significant positive influence on the income of *mustahik*. The findings showed that the zakat variable (X1) had a regression coefficient of 0.321 and a t-value of 3.221, with a significance level of 0.002, demonstrating its substantial impact on *mustahik* welfare. Similarly, the wetland environment variable (X2) had a regression coefficient of 0.208 and a t-value of 2.108, with a significance level of 0.041, indicating a meaningful contribution to *mustahik* income growth.

The F-value of 20.832, which is greater than the F-table value (3.19) and a significance of 0.000, confirms that the independent variables significantly impact the dependent variable (*mustahik* welfare). Furthermore, the coefficient of determination (R^2) of 48.1% indicates that nearly half of the variation in *mustahik* income can be explained by these independent variables, while the remaining 51.9% is influenced by other factors not included in the model.

These results are consistent with previous studies, such as the work of Jedidia & Guerbouj (2020), which demonstrated that zakat distribution significantly contributes to economic growth and poverty reduction. The findings also align with theoretical exploration by Alam Choudhury & Syafri Harahap (2008), which highlights the importance of zakat as a redistribution tool in promoting social welfare and equitable resource allocation.

In the context of South Kalimantan, the utilization of the wetland environment as an economic resource further amplifies the impact of zakat by providing sustainable livelihood opportunities for *mustahik*. However, this study also underscores the need for more effective governance and monitoring of zakat distribution to maximize its impact, as suggested by Hakim et al. (2021).

Overall, the research confirms that zakat, combined with strategic environmental resource utilization, can play a pivotal role in enhancing the economic well-being of the community, making it a valuable policy tool for achieving sustainable development goals. Future research should focus on improving the management and transparency of zakat institutions, as well as exploring the potential of integrating digital technology to optimize zakat distribution and its socio-economic impact.

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