PROCEEDING
International Conference on Innovation of Science and Social Studies
E-ISSN: 3164-5240
Volume : 1 | Issue: 2 | September 2026

THE IMPACT OF VILLAGE BUDGET AND NUMBER OF HOUSEHOLDS ON VILLAGE DEVELOPMENT IN SOUTH WEDA DISTRICT

Said Mala[1], Indri Elisiana[2]
*saidmala@unkhair.ac.id[1], indrielisiana55@gmail.com[2]
*[12]Faculty of Economics and Business, Khairun University, Ternate, Indonesia

ARTICLE INFO:

Article history:
Received: 15 Juli 2026
Accepted: 21 Agustus 2026
Published: 15 September 2026

Keywords:
Village Budget, Number of Households, Village Development Index, Village Development

A B S T R A C T

This study examines the effects of village government budgets and the number of households on village development in South Weda District during the 2020–2024 period. Village development is measured using the Village Development Index, while the independent variables consist of the village budget, including the Village Fund and Village Fund Allocation, and the number of households. The study employs a quantitative approach using panel data regression to capture variations across villages and over time. Descriptive statistics, classical assumption tests, and panel model selection tests, including the Chow, Hausman, and Breusch–Pagan Lagrange Multiplier tests, are applied. Hypotheses are tested using the t-test, F-test, and coefficient of determination. The results show that the village budget has a positive and significant effect on village development, with a coefficient of 0.086132 and a probability value of 0.0021. The number of households also has a positive and significant effect, with a coefficient of 0.153190 and a probability value of 0.0028. Simultaneously, both variables significantly affect village development, as indicated by an F-statistic of 14.80153 and a probability value of 0.000046. The Village Development Index increased from 0.569 in 2020 to 0.710 in 2024, indicating positive development progress. These findings confirm that fiscal capacity and household demographics jointly play an important role in improving village development. Effective, transparent, accountable, and responsive budget management is therefore essential to support infrastructure, public services, economic empowerment, and sustainable village progress.

INTRODUCTION

Village development is a multidimensional process encompassing economic improvement, basic services, infrastructure, social resilience, environmental quality, governance, and community welfare. Within Indonesia's fiscal decentralization framework, the Village Revenue and Expenditure Budget (APBDes), Village Fund, Village Fund Allocation, and Village-Generated Revenue serve as important instruments for financing development, community empowerment, social protection, and local economic development. However, an increase in the village budget does not automatically lead to improved village development because its effectiveness is influenced by expenditure composition, institutional capacity, geographical conditions, population characteristics, and governance quality.

Kharisma et al., (2021) found that the Village Fund Allocation and the number of households had positive effects on the Village Development Index, whereas the Village Fund and geographical difficulty had negative effects. These findings indicate that the village budget and household characteristics are important determinants of village development. Nevertheless, the negative effect of the Village Fund may reflect an affirmative allocation mechanism, whereby villages with lower levels of development receive larger transfers. Empirical evidence concerning the impact of the Village Fund remains mixed. Hilmawan et al., (2023) identified a positive relationship between the Village Fund and village development using an ordinary least squares analysis. However, their difference-in-differences analysis did not demonstrate that regions receiving larger funds experienced faster development. They also found that Village-Generated Revenue had a more consistent contribution to village development. This suggests that the quality of village revenue and expenditure management may be more important than the amount of fiscal transfers alone.

The composition of the village budget also determines development outcomes. Agusta & Khoirunurrofik (2024) found that expenditure on village development implementation was the most consistent component in reducing the number of low-income households. Yusuf & Khoirunurrofik (2022) similarly emphasized the importance of examining the orientation of Village Fund utilization at the village level. Therefore, the village budget should be analyzed in terms of its amount, realization, and expenditure priorities. The village budget may also influence development through local economic institutions and employment creation. Arifin et al., (2020) explained that the Village Fund encouraged the establishment of village-owned enterprises, but this increase did not consistently generate employment opportunities. Wasudewa & Iskandar (2023) found that the economic effects of the Village Fund depended on the ability of regional and village governments to direct the funds toward productive activities. Arham & Payu (2019) and Ernawati et al., (2021) indicated that the Village Fund could reduce poverty and support job creation, although its benefits were not always distributed equally.

Regarding income distribution, Mudzakir (2025), Salsabila & Arcana (2024), and Martak et al., (2018) showed that the Village Fund has the potential to reduce inequality and improve welfare, although the magnitude of its effects is relatively small and varies across regions. These findings confirm that village development should not be assessed only through average economic growth, but also through the distribution of benefits among households.

Households represent an important channel through which village fiscal policies affect development outcomes. Sutisna & Qibthiyyah (2023), Aulia et al., (2025), and Rammohan & Tohari (2023) found that village-level transfers could increase household consumption, improve food expenditure, and reduce the probability of poverty. However, the present study uses the number of households as its principal household-related variable. The number of households may represent labor potential, the basis of community participation, and demand for village facilities. At the same time, a larger number of households may increase the burden of public service provision and village fiscal needs.

PROCEEDING
International Conference on Innovation of Science and Social Studies
E-ISSN: 3164-5240
Volume : 1 | Issue: 2 | September 2026

Other studies explain that households' ability to benefit from development is influenced by their socioeconomic conditions. Paskual et al., (2022) showed that the expenditure structure of poor households reflects limitations in meeting basic needs. Ikhsan & Amri (2022) found that electrification could reduce poverty and increase household non-food expenditure. Sudaryanto et al., (2023) highlighted the importance of rural economic diversification, while Fahmi & Sari (2020) found that digitalization increased income and well-being, although the greatest benefits were received by households with the skills and access required to capture new economic opportunities. The effectiveness of the village budget is also determined by program alignment, governance, and local power relations. Permatasari et al., (2021) emphasized the importance of aligning Village Fund utilization with sustainable development objectives. Sidik & Habibi (2024) demonstrated that the benefits of the Village Fund were not always proportionally received by poor groups. Ginting et al., (2024) highlighted the importance of village officials' capacity, community participation, subdistrict-level assistance, accountability, and risk mitigation in village budget management.

Based on a number of findings in the research, there are four major research gaps can be identified. First, previous findings regarding the effect of village budgets remain inconsistent, showing positive, negative, insignificant, or indirect effects. Second, many studies use provincial- or district-level data, which may conceal variations among villages. Third, the number of households, both as a potential development resource and as a source of public service demand, has rarely been examined jointly with the village budget. Fourth, empirical evidence from the archipelagic regions of Eastern Indonesia, particularly North Maluku, remains limited.

Therefore, research in South Weda District is necessary to examine the effect of the village government budget on village development, the effect of the number of households on village development, and the simultaneous effect of both variables. By using the village as the unit of analysis, this study is expected to provide context-specific evidence regarding budget effectiveness and the role of household scale in the development of an archipelagic region.

METHODE

This study employs a quantitative approach using a panel data regression design. Panel data are selected because they combine time-series and cross-sectional dimensions, allowing the analysis to capture changes in village development over time while accounting for differences in the characteristics of each village. The dependent variable is village development, measured using the Village Development Index. The main independent variables are the village government budget and the number of households. The general model is expressed as:

$$Y_{it} = \alpha + B_1 X_{1it} + B_2 X_{2it} + \mu_i + \varepsilon_{it}$$

where Y_{it} represents village development, X_{1it} represents the village government budget, X_{2it} represents the number of households, μ_i represents village-specific effects, and ε_{it} is the error term.

The analysis is conducted in four main stages. First, descriptive statistics are used to summarize the minimum, maximum, mean, and standard deviation of each variable. This analysis helps identify the distribution patterns and general characteristics of the data. Second, classical assumption tests are conducted, including: a). a residual normality test using the Kolmogorov–Smirnov test; b). a multicollinearity test using tolerance and variance inflation factor values; c). a heteroscedasticity test using the Glejser test; and d). an autocorrelation test using the Durbin–Watson statistic. These tests are intended to ensure that the regression model satisfies the relevant statistical assumptions and produces reliable estimates. Third, the most appropriate panel regression model is selected. The Chow test is used to choose between the Common Effect Model and the Fixed Effect Model. The Hausman test is used to choose between the Fixed Effect Model and the Random Effect Model. The Breusch–Pagan Lagrange Multiplier test is used to choose between the Common Effect Model and the Random Effect Model. The model selected through these tests is then used for the final estimation. Fourth, the hypotheses are tested using: a). the t-test to examine the partial effects of the village government budget and the number of households; b). the F-test to examine their simultaneous effect; and c). the coefficient of determination to assess how much of the variation in village development is explained by the independent variables. These analytical procedures are used to determine the effects of the village government budget and the number of households on village development in South Weda District.

RESULT AND DISCUSSION

1. The Effect of the Village Budget on Village Development in South Weda District

The results of this study indicate that the village budget, consisting of the Village Fund and the Village Fund Allocation, has a positive and significant effect on village development in South Weda District. This is demonstrated by the results of the (t)-test, which produced a coefficient of 0.086132 with a probability value of 0.0021, which is lower than 0.05. Therefore, it can be concluded that every increase in the village budget contributes to an increase in the Village Development Index (VDI). This finding is also supported by the results of the (F)-test, which show that the independent variables simultaneously have a significant effect on village development. Thus, the village budget is an important instrument for promoting physical, social, and economic development in the villages of South Weda District.

The increase in the Village Fund and Village Fund Allocation during the 2020–2024 period provided village governments with greater fiscal space to implement priority programs. Budget realization was directed toward the development of basic infrastructure, including roads, bridges, clean-water facilities, educational facilities, and healthcare services. A portion of the budget was

PROCEEDING
International Conference on Innovation of Science and Social Studies
E-ISSN: 3164-5240
Volume : 1 | Issue: 2 | September 2026

also allocated to community empowerment activities, such as skills training, strengthening village-owned enterprises, and supporting community microenterprises. The impact of this budget utilization is reflected in the upward trend of the Village Development Index in South Weda District, which increased from 0.569 in 2020 to 0.710 in 2024. This indicates positive progress, although the rate of improvement varied from year to year.

These results reinforce the findings of previous research by Bakti Kharisma et al. (2021), which stated that the village budget has a significant effect on village development status. This means that an increase in village fund allocations strengthens the capacity of villages to manage development independently. Nevertheless, budget effectiveness is highly dependent on village financial governance. Transparency, accountability, and community participation in budget planning and oversight are essential to ensure that budget utilization produces the greatest possible development benefits.

Accordingly, the village budget plays a strategic role in accelerating village development in South Weda District. An increase in village funding that is properly managed not only promotes infrastructure development and improves basic services but also strengthens the economic independence of rural communities. This is consistent with the objectives of Law Number 6 of 2014 concerning Villages, namely to create advanced, independent, and prosperous villages through transparent, participatory, and accountable village financial governance.

2. The Effect of the Number of Village Households on Village Development in South Weda District

The results of this study show that the number of households has a positive and significant effect on village development in South Weda District. This is demonstrated by the results of the (t)-test, which produced a coefficient of 0.153190 with a probability value of 0.0028, which is lower than 0.05. It can therefore be concluded that an increase in the number of households makes a significant contribution to improving the Village Development Index. In other words, the greater the number of households in a village, the greater the demand and pressure on basic services, infrastructure, and local economic activities. This situation ultimately encourages village governments to accelerate development.

Based on the available data, the number of households in South Weda District increased from 1,269 in 2020 to 1,683 in 2024. This growth indicates strong socioeconomic dynamics in the study area. The increase in the number of households directly raises demand for public facilities, including education, healthcare, clean water, electricity, roads, and transportation infrastructure. These pressures require village governments to respond more effectively in formulating development programs, both in the provision of basic services and in strengthening the local economy.

This finding is consistent with the development theory proposed by Todaro and Smith (2015), which states that growth in the number of households increases demand for basic facilities. This may place pressure on village finances while simultaneously encouraging the acceleration of development. Households are not only beneficiaries of development but also important actors in supporting village economic activities. Productive households engaged in small businesses, agriculture, fisheries, or home industries contribute directly to local economic growth and Village-Generated Revenue. Conversely, when most households are poor, the fiscal burden on the village increases because of the greater need for social assistance and subsidies for basic services.

In the context of South Weda District, the increase in the number of households has contributed to village development, as reflected in the rise in the Village Development Index from 0.569 in 2020 to 0.710 in 2024. This indicates that household growth has made a positive contribution to development, particularly through increased community participation in productive economic activities and village development planning.

The number of households and the village budget are closely related in determining the direction of development. An increasing number of households raises the demand for basic services, including infrastructure, education, healthcare, and community empowerment programs. This condition requires villages to allocate larger budgets to meet these needs. Conversely, the size of the village budget determines the village government's ability to provide facilities and services that improve household quality of life.

When the budget is managed effectively and allocated appropriately, household growth can be transformed into a productive labor force that supports village economic activities. However, when the village budget is insufficient to keep pace with household growth, social problems may emerge, including unemployment, limited access to public services, and welfare inequality. Therefore, the relationship between the number of households and the village budget is reciprocal: household growth increases budgetary needs, while the quality of budget management determines the extent to which such growth can be accommodated to support village development.

It can therefore be concluded that growth in the number of households has a significant effect on village development in South Weda District. This result confirms that households constitute a strategic factor in village development, both as a driver of demand for public services and as a principal actor in local economic activities. Strengthening household capacity through improvements in human resources, access to education, and economic empowerment is therefore essential to ensure that household growth makes an optimal contribution to village development and independence.

3. The Simultaneous Effect of the Village Budget and the Number of Households on Village Development in South Weda District

PROCEEDING
International Conference on Innovation of Science and Social Studies
E-ISSN: 3164-5240
Volume : 1 | Issue: 2 | September 2026

The results of this study indicate that the village budget and the number of households simultaneously have a significant effect on village development in South Weda District. This is demonstrated by the (F)-test, which produced an (F)-statistic of 14.80153 with a probability value of 0.000046, which is lower than 0.05. The regression model can therefore be considered statistically significant. This means that the village budget and the number of households jointly make a significant contribution to improving the Village Development Index in South Weda District during the 2020–2024 period.

The combination of a growing village budget and an increasing number of households creates complementary development dynamics. On the one hand, an increase in the village budget provides village governments with greater fiscal capacity to finance infrastructure, public services, and community economic empowerment. On the other hand, household growth generates increasingly complex demands for basic facilities, including education, healthcare, electricity, clean water, and employment opportunities. These pressures encourage village governments to use their budgets more effectively and responsively so that village development can keep pace with demographic growth.

This finding is consistent with the research of Bakti Kharisma et al. (2021), which stated that village budgets and village households significantly affect village development, while other factors, such as geographical difficulty, do not always produce the same effect. This demonstrates that village financial capacity and household demographics are key factors in determining the direction of development at the village level. In the context of South Weda District, the simultaneous effect of these two variables is reflected in the relatively consistent increase in the Village Development Index from 0.569 in 2020 to 0.710 in 2024. This improvement was influenced not only by the increase in village budget allocations but also by the growing number of households, which accelerated social and economic development. It can therefore be emphasized that the village budget and the number of households jointly play a highly strategic role in accelerating village development toward greater independence, advancement, and prosperity.

CONCLUSSION

The findings show that the village budget and the number of households significantly influence village development in South Weda District during 2020–2024. The village budget, consisting of the Village Fund and the Village Fund Allocation, has a positive effect on development because greater fiscal capacity allows village governments to finance infrastructure, basic services, community empowerment, and local economic activities. These expenditures contribute to improvements in the Village Development Index.

The number of households also has a positive and significant effect. Household growth increases demand for education, healthcare, infrastructure, employment, and other public services. At the same time, it expands the potential labor force, community participation, and local economic activity. Households therefore serve not only as beneficiaries of development but also as active contributors to village progress.

Simultaneously, the village budget and the number of households significantly affect village development. This indicates that fiscal capacity and household demographics are closely connected. A growing number of households requires larger and more responsive budget allocations, while effective budget management determines whether demographic growth can be transformed into productive participation and improved welfare.

The increase in the Village Development Index from 0.569 in 2020 to 0.710 in 2024 reflects positive progress in South Weda District. However, the effectiveness of village budgets depends on transparent, accountable, participatory, and well-targeted management. Village governments should therefore improve budget planning, prioritize basic infrastructure and productive economic programs, strengthen public services, and enhance household capacity through education, skills development, and economic empowerment to achieve more advanced, independent, and prosperous villages.

REFERENCES

Agusta, F. A., & Khoirunurrofik, K. (2024). Does Expenditure Structure Affect Rural Poverty Alleviation in Indonesia? The Role of Village Fund Management. *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, *8*(1), 45–58. https://doi.org/10.36574/jpp.v8i1.524

Arham, M. A., & Payu, B. R. (2019). Economics Development Analysis Journal Village Fund Transfer and Rural Poverty in Indonesia Article Info. *Economics Development Analysis Journal*, *8*(4), 324–334.

Arifin, B., Wicaksono, E., Tenrini, R. H., Wardhana, I. W., Setiawan, H., Damayanty, S. A., Solikin, A., Suhendra, M., Saputra, A. H., Ariutama, G. A., Djunedi, P., Rahman, A. B., & Handoko, R. (2020). Village fund, village-owned-enterprises, and employment: Evidence from Indonesia. *Journal of Rural Studies*, *79*(September), 382–394. https://doi.org/10.1016/j.jrurstud.2020.08.052

Aulia, A. F., Nasruddin, C. H., Johantri, B., & Arifin, B. (2025). Does Village Direct Cash Assistance (BLT Dana Desa) Reduce Poverty? Evidence From the Village Fund Program in Indonesia. *Review of Development Economics*, *30*(3), 2098–2119. https://doi.org/https://doi.org/10.1111/rode.70094

Ernawati, E., Tajuddin, T., & Nur, S. (2021). Growth ? An Experience of Implementing Village Fund Policy in Indonesia. *Economies*, *9*(164), 2–12.

Fahmi, F. Z., & Sari, I. D. (2020). Rural transformation, digitalisation and subjective wellbeing: A case study from Indonesia. *Habitat International*, *98*(March), 102150. https://doi.org/10.1016/j.habitatint.2020.102150

Ginting, A. H., Widianingsih, I., Mulyawan, R., & Nurasa, H. (2024). Village fund program in Cibeureum and Sukapura village, Bandung Regency, Indonesia: Problems, risks, and solutions. *Cogent Social Sciences*, *10*(1). https://doi.org/10.1080/23311886.2024.2303452

Hilmawan, R., Aprianti, Y., Vo, D. T. H., Yudaruddin, R., Bintoro, R. F. A., Fitrianto, Y., & Wahyuningsih, N. (2023). Rural development from village funds, village-owned enterprises, and village original income. *Journal of Open Innovation: Technology, Market, and Complexity*, *9*(4), 100159. https://doi.org/10.1016/j.joitmc.2023.100159

Ikhsan, I., & Amri, K. (2022). Does electrification affect rural poverty and households' non-food spending? Empirical evidence from western Indonesia. *Cogent Economics and Finance*, *10*(1). https://doi.org/10.1080/23322039.2022.2095768

Kharisma, B., Taifur, W. D., & Muharja, F. (2021). Dampak Anggaran, Kesulitan Geografis, dan Rumah Tangga Desa terhadap Status Desa di Provinsi Riau. *Journal of Regional and Rural Development Planning*, *5*(3), 187–202. https://doi.org/10.29244/jp2wd.2021.5.3.187-202

Martak, Y. F., Maulana, S. J., & Santoso. (2018). Dampak Dana Desa terhadap Kesejahteraan dan Ketimpangan: Preliminary Assessment. *Article 33 Indonesia*.

Mudzakir, A. M. (2025). Dampak Dana Desa terhadap Ketimpangan Desa-Kota di Indonesia. *Journal of Regional and Rural Development Planning*, *9*(2), 112–122. https://doi.org/10.29244/jp2wd.2025.9.2.112-122

Paskual, M. F., Yunus, S., Haprin, N., & Rahman, F. (2022). Expenditure Patterns of The Poor In Central Sulawesi. *Eduvest - Journal of Universal Studies*, *2*(11), 2428–2441. https://doi.org/10.59188/eduvest.v2i11.654

Permatasari, P., Ilman, A. S., Tilt, C. A., Lestari, D., Islam, S., Tenrini, R. H., Rahman, A. B., Samosir, A. P., & Wardhana, I. W. (2021). The village fund program in indonesia: Measuring the effectiveness and alignment to sustainable development goals. *Sustainability (Switzerland)*, *13*(21). https://doi.org/10.3390/su132112294

Rammohan, A., & Tohari, A. (2023). Rural poverty and labour force participation: Evidence from Indonesia's Village fund program. *PLoS ONE*, *18*(6 June), 1–15. https://doi.org/10.1371/journal.pone.0283041

Salsabila, S., & Arcana, I. (2024). The Effect of Village Funds and Other Economic Factors on Income Inequality in Rural Indonesia 2015-2022. *Seminar Nasional Official Statistics*, *2024*(1 SE-Official Statistics), 133–142.

Sidik, F., & Habibi, M. (2024). A Prize for the Village Ruling Class: "Village Funds" and Class Dynamics in Rural Indonesia. *Journal of Contemporary Asia*, *54*(3), 387–411. https://doi.org/10.1080/00472336.2023.2193968

PROCEEDING
International Conference on
Innovation of Science and Social Studies
E-ISSN: 3164-5240
Volume : 1 | Issue: 2 | September 2026

Sudaryanto, T., Erwidodo, Dermoredjo, S. K., Purba, H. J., Rachmawati, R. R., & Irawan, A. R. (2023). Regional rural transformation and its association with household income and poverty incidence in Indonesia in the last two decades. *Journal of Integrative Agriculture*, *22*(12), 3596–3609. https://doi.org/10.1016/j.jia.2023.11.029

Sutisna, A., & Qibthiyyah, R. M. (2023). The Impact of Village Cash Transfer on Rural Households' Economic Well-being. *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, *7*(2), 288–298. https://doi.org/10.36574/jpp.v7i2.459

Wasudewa, A. A. N. G., & Iskandar, D. A. (2023). Dampak Dana Desa terhadap Pertumbuhan dan Perkembangan Ekonomi Regional di Indonesia. *Journal of Regional and Rural Development Planning*, *7*(2), 138–150. https://doi.org/10.29244/jp2wd.2023.7.2.138-150

Yusuf, M., & Khoirunurrofik, K. (2022). The Relationship of Village Funds With Village Economic Development: A Village Level Study in Indonesia. *Jurnal Bina Praja*, *14*(3), 493–504. https://doi.org/10.21787/jbp.14.2022.493-504