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Household Characteristics and Poverty Line Assessment in Rural Communities

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Abstract:

This study aims to analyze the characteristics of poor households and measure the poverty line, poverty level, depth of poverty, and severity of poverty in Lumbudolo Village, Central Banawa District, Donggala Regency. The study also examines the influence of socio-economic factors and livelihood assets on poverty status based on the Sustainable Livelihood Framework (SLF). A mixed-methods approach was applied through a survey of 51 household heads, in-depth interviews, and focus group discussions. Data were analyzed using descriptive statistics, poverty indicators (P0, P1, P2), the Gini Ratio, and logistic regression. The results show that most poor households are headed by elderly individuals with low levels of education and are primarily employed in the agricultural and informal labor sectors. Average household income ranges from IDR 250,000 to IDR 500,000 per month, with expenditures dominated by food consumption. Lumbudolo Village exhibits moderate income inequality (Gini Ratio = 0.549), and nearly half of its households fall below the poverty line. The P1 and P2 values indicate substantial depth and severity of poverty. Logistic regression analysis reveals that human, financial, and physical capital significantly influence the likelihood of households experiencing poverty, whereas basic socio-economic characteristics show limited effects. These findings emphasize that poverty is multidimensional, requiring development interventions that prioritize improvements in human resource quality, access to financial capital, and basic infrastructure to strengthen household resilience and reduce poverty sustainably.

Keywords: *Poverty, Poverty Line, Poverty Gap, Sustainable Livelihood Framework, income inequality, Poor Household./*

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1. Introduction

National development in Indonesia is fundamentally directed toward enhancing equitable and sustainable welfare, with poverty reduction serving as one of the

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primary indicators of developmental success. The persistent prioritization of poverty alleviation in national agendas derives from the reality that poverty is not merely an economic deficit but a multidimensional phenomenon shaped by social, cultural, educational, health, and environmental limitations (Fahad et al., 2023; Wang & Lin, 2022). Given its complexity, poverty emerges as a structural constraint that inhibits human development and weakens the resilience of households. This underscores why the study of poverty, particularly at the micro-regional and village levels, remains critically important for ensuring that national and local development interventions truly reach vulnerable populations (Astuti, 2024; Papilaya, 2020).

Existing scholarship affirms poverty as a global and context-dependent condition characterized by deprivation in income, access to education, health services, employment opportunities, and the ability to meet basic needs (Cutillo et al., 2022; Dogan et al., 2022). Classical and contemporary perspectives provide further nuance: Hikmat (2004) highlights that the poor possess latent potential but experience prolonged dependency on external assistance; views poverty as a constrained state driven by limited education, productivity, income, and health; and emphasizes the absence of production factors and inadequate facilities as key barriers. These perspectives collectively indicate that poverty manifests through deeply rooted structural limitations, reinforcing the need for multidimensional assessment frameworks (Charlier & Legendre, 2021; Gafa & Egbendewe, 2021).

Within human development discourse, the World Bank (1990) asserts that poverty alleviation requires more than economic growth, urging improvements in health and education to strengthen human capabilities. Empirical evidence from Indonesia similarly shows that economic expansion is insufficient when growth disproportionately benefits specific population groups (Prasetyoningrum & Sukmawati, 2018). Central Sulawesi, including Donggala Regency, exemplifies this challenge. Studies in the region demonstrate that education, employment opportunities, and access to basic services substantially determine household poverty status (Bandha & Moelyono, 2022; Manangkalangi et al., 2020). Additional research reveals that infrastructure inequality, economic vulnerability within informal sectors, and limited availability of productive employment and business capital collectively prolong rural poverty (Nahe et al., 2024; Singh & Chudasama, 2020).

Despite ongoing efforts, significant disparities remain evident in Central Sulawesi's poverty profile. In September 2024, the province recorded a poverty rate of 11.04%, affecting 358,330 people, compared to 379,760 people in March 2024. Urban poverty reached 11.77%, while rural poverty stood at 12.41%, showing higher deprivation in rural areas. Donggala Regency, with a population of 308,300, exhibited an even higher poverty rate of 15.30% in 2024, a slight decline from 16.25% in 2023 yet remaining the second-highest in the province. The poverty line increased from IDR 405,556 in 2023 to IDR 421,493 per capita per month in 2024. Simultaneously, the Poverty Depth Index rose from 2.65 to 3.00, signaling decreasing purchasing power among poor households. These quantitative indicators highlight deepening vulnerability despite gradual poverty reduction (Astuti, 2024).

Banawa Tengah District, spanning 60.25 km² and comprising eight villages, represents a microcosm of these regional disparities. Although primary infrastructure—particularly roads, drainage, and auxiliary health centers—has reached adequate functional levels, socio-economic limitations persist. Low educational attainment, restricted employment opportunities, and insufficient household income remain significant determinants of poverty (Mulder et al., 2023; Wang et al., 2021). Furthermore, the cost of health services continues to burden poor households, revealing a discrepancy between infrastructure availability and actual accessibility (Zatz et al., 2021). These conditions demonstrate that multidimensional deprivation persists even where physical infrastructure appears satisfactory.

The existing body of literature provides valuable insights into regional poverty dynamics; however, several gaps remain. Prior studies have not examined in depth the specific poverty characteristics and poverty line implications at the village level in Lumbudolo Village, Central Banawa District, despite its inclusion in a regency with one of the highest poverty rates in Central Sulawesi. The interplay between income inequality, poverty depth, poverty severity, and livelihood assets also remains understudied within this local context (Apergis et al., 2022; Salamova et al., 2023). As a result, the nuanced socioeconomic patterns that shape household vulnerability in Lumbudolo Village have not been sufficiently captured in empirical assessments, thereby creating a research gap requiring targeted investigation.

This study presents novelty by integrating village-level poverty profiling with quantitative measurements of inequality, poverty incidence, depth, and severity, while also examining the socio-economic determinants and livelihood assets influencing household vulnerability. By incorporating statistical indicators such as Donggala's poverty line (IDR 421,493) and poverty depth index (3.00), the research offers localized, data-driven insights that strengthen empirical understanding of financial thresholds and deprivation levels in rural contexts (Wang & Lin, 2022; Fahad et al., 2023).

This study aims to analyze the characteristics of poor households in Lumbudolo Village by identifying income disparities, assessing poverty levels, and evaluating the depth and severity of deprivation, alongside the socio-economic and livelihood factors shaping household welfare. The findings are intended to provide both theoretical contributions to poverty studies and practical recommendations for village authorities and stakeholders in developing inclusive and targeted interventions. Through its micro-level perspective, the research enhances understanding of rural poverty dynamics in Donggala Regency and supports evidence-based improvements in poverty alleviation strategies (Papilaya, 2020; Astuti, 2024).

2. Theoretical Background

Sustainable Livelihood Framework (SLF) Theory

Theory Sustainable Livelihoods Framework (SLF) introduced by (Chambers and Conway 1991b), This theory originates from the sustainable development paradigm that places people at the core of development, emphasizing how assets, vulnerabilities, and institutional processes shape livelihood strategies. The Sustainable Livelihood Framework (SLF) views welfare not only through economic outcomes but as a balance of five interconnected forms of capital: human capital (knowledge, skills, health), social capital (networks, trust, cooperation), natural capital (land, water, climate), physical capital (infrastructure and production facilities), and financial capital (income, savings, access to finance). These capitals interact dynamically and collectively determine the resilience and sustainability of household livelihoods.

Understanding Poverty

According to BPS (2016), poverty is defined as an economic, material, and physical inability to meet basic food and non-food needs, measured through household expenditure. Poverty is assessed using the poverty line, which consists of the Food Poverty Line (GKM) the minimum expenditure required to meet 2,100 calories per capita per day and the Non-Food Poverty Line (GKNM), which reflects essential needs such as clothing, education, health, and other basic necessities.

According to the World Bank (2015), poverty occurs when a person is unable to meet basic needs and live a decent life. This view is in line with various theories of poverty, such as the Poverty Circle Theory of (Myrdal and Sihotang 1957) which explains that poverty occurs on a cyclical basis because low income limits access to education and health, as well as the Basic Needs Theory of (Streeten 1979) on unmet basic needs, structuralist views on unequal resource distribution, and Marginalization Theory on the exclusion of groups from socio-economic access. (Lewis 1954) through Dual-Sector Theory It also explains poverty as a result of inequality between the traditional and modern sectors. In a more comprehensive context, this study uses Sustainable Livelihood Framework from (Chambers and Conway 1991), which affirms that the sustainability of household life is highly dependent on access to five main capitals: human, social, financial, natural, and physical. Supporting theories such as Human Capital Theory from (Becker 1964) that places education and skills as productive investments, Social Capital Theory from (Putnam 1993) which emphasizes the importance of social networks in reducing vulnerability, as well as the curve (Kuznets 1955) which links growth and inequality to poverty, showing that poverty is shaped by interconnected structural and individual factors.

This study uses four main indicators to measure poverty: the Gini Ratio to capture income inequality, the Head Count Index (P0) to quantify the proportion of households below the poverty line, the Poverty Gap Index (P1) to assess the average shortfall of poor households from the poverty line, and the Poverty Severity Index (P2) to evaluate the intensity of poverty by giving greater weight to the poorest households. Together, these indicators provide a comprehensive picture of poverty's extent and depth. Theoretically, poverty is seen as structural and intergenerational, as noted by (Todaro and Smith 2006), while (Sumodiningrat, Gunawan, and Wrihatnolo 2005) describe it as a generational chain that persists without targeted intervention.

Conceptual Framework

This research uses a framework based on the Sustainable Livelihood Framework (SLF). Socio-economic factors (education, employment, number of dependents, health) and livelihood assets (human capital, nature, social, financial, physical) are seen as independent variables that affect the status of household poverty (dependent variables) are depicted in the following chart:

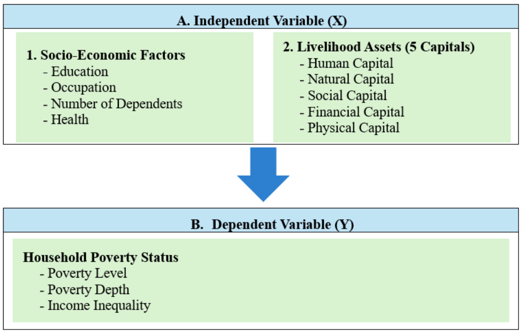

Figure 1. Frame of Mind

Based on Figure 1 above, the research hypothesis can be described as follows:
H1: There is a middle-category income inequality.
H2: Most households are poor.
H3: There is a significant depth of poverty.
H4: There is a significant severity of poverty.
H5: Socio-economic factors and livelihood assets are related to poverty conditions

3. Methodology

This study employs a mixed methods design combining quantitative and qualitative approaches to comprehensively examine household poverty in Lumbudolo Village, Central Banawa District, Donggala Regency. Quantitative methods measure poverty through statistical indicators, while qualitative methods explore social dynamics influencing poverty, consistent with Creswell's view that mixed methods provide both breadth and depth. Conducted over three months, the research focuses on household socio-economic characteristics, living conditions, and service access.

The population includes all households in Lumbudolo Village, with 51 household heads selected through stratified random sampling. Quantitative data were collected using structured questionnaires on income, expenditure, education, employment, housing, and service access. Qualitative data were obtained through in-depth interviews and FGDs with community leaders, supported by secondary data from BPS Donggala (2023) and village records.

Poverty status is operationalized through four indicators: the Gini Ratio, Head Count Index (P0), Poverty Gap Index (P1), and Poverty Severity Index (P2). Logistic regression analyzes the effects of socio-economic factors and livelihood assets using $\ln(p/(1–p)) = β0 + β1X1 + … + βkXk$. Qualitative analysis includes reduction, categorization, and thematic interpretation to contextualize quantitative results and explain household adaptation strategies.

4. Empirical Findings/Result

Overview of Research Objects

Lumbudolo Village is one of eight villages in Central Banawa District, Donggala Regency, Central Sulawesi, with an area of about 3.39 km². The village is divided into three hamlets set by the village government to facilitate administration, although the boundaries of each hamlet can only be known through the official map at the village office. Geographically, Central Banawa District is located on the coast and close to the capital of Donggala Regency. The geographical conditions of Lumbudolo Village affect the socio-economic life of its people, who are largely dependent on the agricultural and plantation sectors. The boundaries of Lumbudolo Village are as follows:

Respondent Characteristics

The characteristics of the respondents described in this study are Gender, Age, Education, Occupation, Income, and Number of Family Dependents in each household. Generally, the respondents in this study are the heads of households.

Table 1. Gender of Poor Heads of Household

No	Gender	Number of Respondents	Percentage (%)
1	Man	34	66,67%
2	Woman	17	33,33%
	Total	51	100%

Source : Data Processed (2025)

The results of the study show that it turns out that in Lumbudolo Village there are women who are the head of household, this is because they are widows, either abandoned by their spouses or divorced dead, the weak economy of poor household life causes women to be the backbone for the brand family.

Table 2. Age of Poor Heads of Households

No	Age	Number of Respondents	Percentage (%)
1	20-29	7	13,73%
2	30-39	5	9,80%
3	40-49	8	15,69%
4	50-59	5	9,80%
5	60-69	16	31,37%
6	70+	10	19,61%
	Total	51	100%

Source : Data Processed (2025)

The results of the study show that it turns out that the most of the 51 respondents are in the range of 60-69 years. Such an age is meant in the elderly group, of course at this age the ability to try and overcome household constraints is relatively low, so the potential to increase income is also very low.

Table 3. Education of Poor Heads of Households

No	Education Level	Number of Respondents	Percentage (%)
1.	Early childhood		
2.	SD	33	64,71%
3.	JUNIOR	10	19,61%
4.	SMA	7	13,73%
5.	University	1	1,96%
6.	No School		
	Total	51	100%

Source : Data Processed (2025)

The people of Lumbudolo Village in general have worked, but work alone is not enough without the support of knowledge and skills. The lack of knowledge causes poor households to not be able to increase their work productivity. This low productivity reflects the low quality of human resources, thus having an impact on the ability to compete in the job market and ultimately lowering the level of income. Skill limitations make it difficult for them to increase their income.

Table 4. Poor Household Head's Job

No	Job Type	Number of Respondents	Percentage (%)
1	Farmer	23	45,10%
2	Breeder	1	1,96%
3	Fisherman	1	1,96%
4	Laborer	5	9,80%
5	Self employed	1	1,96%
6	Honorary	2	3,92%
7	Merchant	7	13,73%
8	Driver	1	1,96%
9	IRT	10	19,61%
	Total	51	100%

Source : Data Processed (2025)

The results of the study show that most of the poor households in Lumbudolo Village work in the agriculture/plantation sector, both on their own land and on other people's land, with the main commodities nutmeg and corn. The harvest is generally used for consumption and some are sold. A total of 51 heads of households had varying income levels, ranging from IDR 250,000 to IDR 1,500,000 per month, as shown in Table 4.5:

Table 5. Income of Poor Heads of Households

No	Income Class	Number of Respondents	Present (%)
1	0 – Rp. 250.000	10	19,61%
2	IDR 250,000 - IDR 500,000	19	37,25%
3	IDR 500,000 - IDR 1,000,000	11	21,57%
4	IDR 1,000,000 – IDR 2,000,000	6	11,76%
5	2.000.000+	5	9,80%
	Total	51	100%

Source : Data Processed (2025)

The results of the study show that the majority of the people of Lumbudolo Village earn between Rp250,000-Rp500,000 per month. This amount is insufficient due to the large number of family members to bear, plus the child's educational needs and fluctuations in market prices. Their income is also erratic, depending on the harvest of the garden or the call to work as a construction worker. The amount of family dependents is determined by the number of family members in one house, such as wives, children, and relatives who live together.

Expenditure

To gain a deeper understanding of household welfare conditions in Lumbudolo Village, the analysis goes beyond identifying income sources and expenditure structures by also examining the distribution pattern of per capita expenditure. Per capita expenditure is an important indicator that provides a more accurate picture of households' purchasing power and their ability to meet basic needs. Therefore, the following graph is presented to illustrate how household per capita expenditures are distributed and how they compare with the established poverty line. This visualization is expected to clarify the level of economic vulnerability within the community and strengthen the conclusions regarding the degree of poverty in the study area.

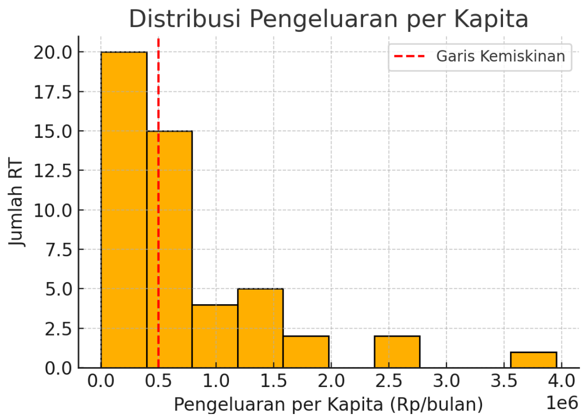

Figure 2. Distribution of expenditure per capita of households with poverty line

It illustrates the distribution of household per capita expenditure in Lumbudolo Village and its position relative to the poverty line. The histogram shows that most households have per capita expenditures that fall far below the poverty line (indicated by the red vertical line). The most dominant expenditure group lies within the range of IDR 0–1 million per capita per month, with a large number of households concentrated in this interval.

The distribution, which is heavily concentrated to the left of the poverty line, indicates that the majority of households are still living in economically vulnerable conditions. Only a small number of households have per capita expenditures that approach or exceed the poverty line, as reflected by the sharply declining frequency in the higher expenditure ranges.

Residence Conditions

The condition of residence is one of the characteristics of respondents who are classified as poor households. This situation is marked by the status of residential ownership, the physical form of the respondent's house, the type of floor of the house, and the type of wall of the house.

Table 6. Residence Status

No	Expenses (Rupiah/Week)	Number of Respondents	Percentage (%)
1	Own House	49	96,08%
2	Living with Parents	2	3,92%
3	Parental Legacy	0	0
	Total	51	100%

Source : Data Processed (2025)

The table above shows that 96.08 percent of the people of South Toribulu Village already have their own houses, they do not live in their family houses or contract because they reason that they want to live more independently and do not want to depend on others, they on average choose to live in their own houses even though the condition of their houses is not so good. And there are 2 people who still live together with their parents.

Table 7. Respondent's Residence Conditions

No	Expenses (Rupiah/Week)	Number of Respondents	Percentage (%)
1	Permanent	40	78,43%
2	Semi Permanent	11	21,57%
	Total	51	100%

Source : Data Processed (2025)

Table 14 shows that the highest percentage, namely 78.43 percent, the condition of the respondents' residence in Lumbudolo Village is permanent and the percentage of 21.57 percent is still semi-permanent. Types of house floors in South Toribulu Village Most of them are cement, then there are also those whose types of house floors still use boards. For more details, see table 15 as follows:

Table 8. Types of House Flooring

No	Expenses (Rupiah/Week)	Number of Respondents	Percentage (%)
1	Cement Flooring	51	100%
2	Lantau Board	0	0
	Total	51	100%

Source : Data Processed (2025)

The results of this study show that from 51 respondents, it turns out that the average poor household in Lumbudolo Village has used cement floors. The types of roofs used by the people of South Toribulu Village are in the form of thatched/woven roofs and zinc roofs For more details, you can see the following table 16:

Table 9. Types of House Roofs

No	Expenses (Rupiah/Week)	Number of Respondents	Percentage (%)
1	Grass/Wick	0	0%
2	Zinc	51	100%
	Total	51	100%

Source : Data Processed (2025)

The results of this study show that poor households in Lumbudolo Village have mostly zinc roofs. Based on the data obtained from the results of the study, of the 51 respondents spread across four hamlets in Lumbudolo Village, they had a type of wall that had become a wall and only 2 respondents still used boards for the walls of their houses.

Table 10. Types of House Walls

No	Expenses (Rupiah/Week)	Number of Respondents	Percentage (%)
1	Board	2	96,08%
2	Wall	49	3,92%
	Total	51	100%

Source : Data Processed (2025)

Table 10 shows that of the 51 households in Lumbudolo Village, as many as 96.08% (49 respondents) had wall walls, indicating that the majority had lived in permanent housing. Only 3.92% (2 respondents) still use plank walls, so there are very few non-permanent houses.

Analysis of Socio-Economic Factors and Assets on Poverty

To test the H5 hypothesis regarding the influence of socio-economic factors on poverty, a logistic regression analysis was carried out with independent variables: education of the head of household, number of household members, vulnerable jobs, number of seriously ill members, and five types of capital based on the Sustainable Livelihood approach (human, natural, social, financial, and physical).

Table 11. Results of Testing the Influence of Socio-Economic Factors on Poverty

Variable	Coefficient	Direction of Influence	p-value	Interpretation
Education of RT Heads	0.163	Positive	0.235	Insignificantly, formal education is not influential enough.
Number of RT Members	0.224	Positive	0.851	Insignificant, the number of members has no obvious effect.
Vulnerable Jobs	-0.618	Negative	0.421	Insignificant, vulnerable jobs have not been shown to increase the risk of poverty.
Number of Seriously Ill Members	1.057	Positive	0.306	It is not significant, but households with severely ill members tend to be poorer.

Human Capital	-0.704	Negative	0.077	Almost significantly ($p<0.1$), the higher the quality of human resources reduces poverty.
Natural Capital	0.612	Positive	0.209	Insignificant, land/nature ownership has no obvious effect.
Social Capital	-0.203	Negative	0.549	It is insignificant, social capital does not have a clear effect.
Financial Capital	-0.765	Negative	0.120	Significantly, access to finance reduces poverty.
Physical Capital	0.714	Positive	0.111	Significantly, limited physical means increase the risk of poverty.

Source : Data Processed (2025)

The results of the logistical regression showed that most of the socio-economic variables did not have a significant effect on poverty in Lumbudolo Village. The education of the head of household, the number of family members, vulnerable occupation, and the presence of members who are seriously ill have not been shown to affect poverty status, although the coefficients still show a tendency to increase risk. On the other hand, the asset variables in the Sustainable Livelihood approach actually show a stronger pattern. Human capital has a negative and almost significant effect, indicating that a higher quality of human resources can reduce poverty. Financial capital also has a negative effect and tends to be significant, showing the importance of access and capacity for financial management. Meanwhile, physical capital has a positive effect and is close to significant, which means that limited infrastructure increases the chances of households entering the poor category. Overall, these findings confirm that asset-based factors have a stronger relationship with poverty than basic socio-economic characteristics, so policies need to be focused on strengthening human resources, improving financial access, and improving household physical facilities.

Calculation and Analysis of the Poverty & Inequality Index

This section presents the results of the calculation of poverty and inequality indicators based on Lumbudolo Village data. The measurement was carried out using per capita expenditure per month and the poverty line (z) of Rp438,095 per capita/month. The indices calculated include the Head Count Index (P0), Poverty Gap Index (P1), Poverty Severity Index (P2), and Gini Ratio.

Table 12. Results of Poverty & Inequality Index Calculation and Analysis

Indicators	Value	Brief Interpretation
Gini Ratio	0.549	Per capita expenditure inequality (0 = perfect fairness; 1 = full inequality).
Head Count Index (P0)	0.381	The proportion of households below the poverty line.
Poverty Gap Index (P1)	0.180	Average poverty depth (proportion of deficiency to z, averaged for all households).

Poverty Severity Index (P2)	0.119	Severity of poverty (giving greater weight to the very poor).

Source : Data Processed (2025)

The calculation results show that the Gini Ratio value of 0.549 indicates that the level of inequality in expenditure is in the low to medium category. Meanwhile, the Head Count Index (P0) value of 0.469 shows that around 46.9% of households are below the poverty line, so they have not reached a condition where the majority of the population is classified as poor. The Poverty Gap Index (P1) value of 0.319 illustrates that poor households have an average expenditure deficit of 31.9% against the poverty line, indicating a fairly high depth of poverty. Furthermore, the Poverty Severity Index (P2) value of 0.260 shows a significant level of poverty severity, because this indicator gives greater weight to households that are far below the poverty line. Based on these results, it can be concluded that:

1. H1, which states inequality is in the medium category, is supported, as the Gini Ratio of 0.549 is in the low–medium range.
2. H2, which states that the majority of households are in poor conditions, is not supported, as P0 is still below 0.50.
3. H3, regarding the significant depth of poverty, is supported, as can be seen from the P1 value of 0.319 which reflects the high gap to the poverty line.
4. H4, related to the severity of poverty, is supported, indicated by a P2 value of 0.260 which describes the concentration of poverty in the very poor group.

Overall, the results of the poverty and inequality index show that although the proportion of poor households does not reach half of the population, the condition of poverty in Lumbudolo Village is still classified as serious because its depth and severity are relatively high. Many poor households are so far from the poverty line that they need more intensive interventions. In addition, the inequality of expenditure that is still in the low category reflects the uneven distribution of welfare. Therefore, poverty alleviation is not enough to focus on reducing the number of poor households alone, but must also be directed to reduce the depth and severity of poverty through more targeted and sustainable programs.

5. Discussion

The findings of this study reveal that socio-economic characteristics alone are insufficient to explain household poverty in Lumbudolo Village. This aligns with studies emphasizing that poverty is a multidimensional phenomenon shaped not only by income but also by access to assets, capabilities, and structural constraints (Fahad et al., 2023; Cutillo et al., 2022). The logistic regression results indicate that variables such as the education of the household head, household size, vulnerable employment, and the presence of seriously ill members were statistically insignificant. Similar conclusions were drawn by Bandha and Moelyono (2022) and Manangkalangi et al. (2020), who found that basic demographic factors do not consistently predict poverty because their impacts are often mediated by access to resources and livelihood opportunities.

In contrast, asset-based variables from the Sustainable Livelihoods Framework showed a stronger association with poverty. Human capital, which includes knowledge, skills, and health, demonstrated a negative and nearly significant effect on poverty, supporting the argument that improvements in education and skills are essential for increasing household resilience (Wang et al., 2021; Singh & Chudasama, 2020). This is consistent with studies showing that households with stronger human capital are better equipped to diversify income sources and adapt to economic shocks (Apergis et al., 2022). Financial capital also exhibited a significant negative effect on poverty, confirming the role of financial inclusion in reducing vulnerability, as highlighted by Dogan et al. (2022) and Wang and Lin (2022). Households with access to credit, savings, or financial instruments are more capable of managing risk, investing in productive activities, and absorbing sudden shocks.

Physical capital, on the other hand, showed a positive and nearly significant relationship, suggesting that households with limited infrastructure—such as inadequate housing, poor sanitation, or lack of productive assets—are more likely to fall into poverty. Similar findings were reported by Gafa and Egbendewe (2021) in rural West Africa and by Mulder et al. (2023) in the context of energy poverty, where inadequate physical capital restricts productivity and increases household expenditures. Social capital, although insignificant in this study, remains an important dimension in broader literature, as other studies argue that networks and community support can reduce vulnerability by facilitating access to information, markets, and opportunities (Zatz et al., 2021; Papilaya, 2020). However, its limited effect in Lumbudolo may reflect weak institutional networks or low levels of community-based cooperation.

The analysis of poverty and inequality indicators further reinforces the multidimensional challenges faced by households. The Gini Ratio of 0.549 indicates moderate inequality, a pattern consistent with findings from Italy (Cutillo et al., 2022) and other developing regions where structural disparities remain persistent. The Head Count Index (P0) of 0.469 shows that fewer than half of households are categorized as poor, yet the Poverty Gap (P1 = 0.319) and the Poverty Severity Index (P2 = 0.260) highlight that many poor households are significantly below the poverty line. This reflects the argument of Prasetyoningrum and Sukmawati (2018) and Astuti (2024) that poverty is not only about incidence but also the depth and intensity of deprivation, requiring more targeted interventions.

The severity of poverty aligns with studies showing that inadequate or uneven distribution of energy, infrastructure, and economic opportunities contributes to persistent deprivation (Charlier & Legendre, 2021; Mulder et al., 2023; Wang & Lin, 2022). The structural nature of poverty in Lumbudolo also resonates with findings from rural land consolidation research, where livelihood capital endowments significantly influence household welfare outcomes (Wang et al., 2021). Meanwhile, Nahe et al. (2024) highlight how poverty is intertwined with broader social issues such as unemployment and crime, suggesting that multidimensional interventions are required to address both economic and social vulnerabilities.

These findings collectively indicate that poverty alleviation efforts must prioritize strengthening households' asset portfolios rather than focusing solely on demographic factors. Enhancing human capital through education and skills training, improving access to financial services, and expanding physical infrastructure are crucial strategies. This is supported by international evidence showing that integrated, asset-based, and sustainable livelihood interventions have greater capacity to lift households out of poverty (Fahad et al., 2023; Singh & Chudasama, 2020). In line with Astuti (2024), program convergence and innovation are essential to ensuring that interventions address the real drivers of poverty rather than its symptoms. Therefore, policies in Lumbudolo Village should shift from general poverty reduction programs toward targeted, multidimensional, and sustainable strategies that reduce not only the incidence but also the depth and severity of poverty.

6. Conclusions

The findings of this study indicate that inequality in Lumbudolo Village falls within the low–medium range, as reflected by the Gini Ratio of 0.549, which demonstrates that expenditure distribution remains uneven. In addition, the proportion of poor households does not constitute a majority, as shown by the Head Count Index (P0) of 0.469, thereby not supporting the hypothesis that most of the population is poor. However, poverty in the village is still substantial in depth and severity. The Poverty Gap Index (P1) value of 0.319 suggests that poor households experience an average shortfall of 31.9% from the poverty line, while the Poverty Severity Index (P2) value of 0.260 indicates the presence of households living significantly below the poverty threshold. These findings should be interpreted with caution due to several research limitations, particularly the reliance on cross-sectional data, which restricts the ability to capture changes in poverty dynamics over time. Furthermore, the measurement of welfare based solely on expenditure may not fully reflect multidimensional aspects of poverty such as health, education, and living conditions.

Based on these conclusions, several policy recommendations can be proposed. Village governments are encouraged to enhance human resource capacity through skills training, non-formal education, and programs aimed at productive economic empowerment. Access to financial capital should also be expanded by strengthening microcredit schemes, savings and loan groups, and village-based financial institutions to support small-scale entrepreneurial activities. Improving basic infrastructure such as road connectivity, production facilities, and economic service centers is essential to prevent mobility barriers that hinder community productivity. Targeted interventions for extremely poor households, including conditional assistance, food support, and health services, are crucial to alleviating expenditure burdens. Moreover, welfare equalization efforts should be reinforced through small business development, broader employment opportunities, preventive health initiatives, and the empowerment of productive social groups to mitigate both poverty and inequality effectively.

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