

Strategies for Sustainable Agriculture-Based Economic Development to Improve Community Welfare in East Luwu Regency



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Abstract

Sustainable agriculture-based economic development has become an important issue in efforts to improve community welfare, particularly in rural areas that heavily depend on the agricultural sector. However, optimizing agricultural potential often faces various constraints, both internal and external. This study aims to formulate strategies for sustainable agriculture-based economic development to improve community welfare in East Luwu Regency. This research employs a quantitative approach using SWOT analysis. The sample size was determined using the Lemeshow Formula, resulting in a total of 96 respondents who are active farmers, along with key informants involved in determining the weights of strategic factors. The results indicate that the internal score of 0.77 and the external score of 0.78 place the strategic position in Quadrant I (Strength–Opportunity), reflecting a strong and opportunity-driven condition. The recommended strategy is an aggressive, growth-oriented approach through the optimization of land utilization, development of leading commodities, improvement of market access, and adoption of agricultural technology. The implementation of this strategy has implications for increasing productivity, farmers' income, and strengthening the rural economy. This study contributes to the formulation of sustainable agriculture-based development strategies grounded in local potential to promote inclusive and sustainable community welfare.

Keywords:

Economic development, Farmers, Sustainable agriculture.

1. INTRODUCTION

The global development discourse has increasingly emphasized the importance of integrating economic growth with environmental sustainability and social welfare. Within the framework of Sustainable Development, agriculture plays a pivotal role as it not only serves as a primary source of livelihood for rural populations but also contributes significantly to food security and economic stability. However, conventional agricultural development models often prioritize productivity and economic output at the expense of environmental degradation and long-term sustainability. This imbalance has led to growing concerns regarding the resilience of agricultural systems and their ability to support community welfare in the long run (Xu et al., 2024).

In many developing countries, agriculture remains a dominant sector in economic development strategies, yet its contribution to improving community welfare is often constrained by structural limitations. Issues such as limited access to technology, market inefficiencies, land degradation, and climate change continue to hinder the effectiveness of agriculture-based economic development. Consequently, there is an increasing need to adopt sustainable approaches that integrate economic, social, and environmental dimensions to ensure inclusive and long-term development outcomes (Terán-samaniego et al., 2025).

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In the context of Indonesia, agriculture continues to play a strategic role in supporting national economic development and rural livelihoods. Despite various government initiatives aimed at promoting sustainable agricultural practices, challenges persist in aligning policy implementation with local conditions. The transition toward sustainable agriculture-based economic development remains uneven, particularly in rural and resource-dependent regions where economic vulnerability and environmental pressures coexist. These conditions highlight the need for context-specific development strategies that are responsive to local potentials and constraints (I et al., 2024; Terpadu, 2024).

At the regional level, South Sulawesi represents one of the key agricultural hubs in Indonesia, characterized by diverse agricultural commodities and significant rural populations. However, the region also faces challenges related to productivity gaps, limited value-added processing, and environmental sustainability. These issues indicate that agricultural development has not yet fully translated into optimal economic welfare for local communities, thereby requiring more strategic and integrated development approaches (Biba, 2022; Gita et al., 2025).

More specifically, East Luwu Regency possesses substantial agricultural potential, supported by the availability of land resources and leading commodities such as cocoa, rice, and plantation crops. Despite these advantages, the region still encounters several development challenges, including limited technological adoption, fluctuating commodity prices, and weak market linkages. These constraints hinder the ability of the agricultural sector to generate sustainable economic benefits and improve community welfare (Ilsan et al., 2020).

Furthermore, the implementation of sustainable agriculture-based economic development in East Luwu Regency has not been fully optimized due to the lack of comprehensive and strategic planning frameworks. Existing development efforts tend to focus on production enhancement rather than integrating sustainability principles and welfare-oriented outcomes. This condition underscores the importance of formulating strategic approaches that can effectively leverage local strengths while addressing existing weaknesses and external challenges.

From a theoretical perspective, this study is grounded in the integration of development economics theory and sustainability concepts. In the context of development economics, Walt Whitman Rostow explains that economic development is a staged process toward modernization through increased investment and structural transformation. Meanwhile, Michael Todaro emphasizes that the primary objective of development is not merely economic growth, but also the improvement of community welfare, including poverty reduction and inequality alleviation. In the agricultural context, Theodore Schultz argues that traditional farmers are economically rational; however, they require technological support and appropriate policies to enhance productivity and efficiency (Economics & Library, n.d.; Sechel & Mariasiu, 2022).

On the other hand, the concept of sustainable development introduced by the World Commission on Environment and Development highlights the importance of meeting present needs without compromising the ability of future generations to meet their own needs. The integration of economic growth, social equity, and environmental sustainability constitutes the fundamental pillars of modern development. Therefore, sustainable agriculture-based economic development is not solely oriented toward increasing output, but also toward ensuring resource sustainability and long-term community welfare. This approach reflects a more inclusive, adaptive, and sustainable development paradigm (Alva, 2008).

Previous studies have examined agricultural development strategies and their impact on economic growth and rural welfare. However, most of these studies tend to focus on partial aspects, such as productivity improvement or policy evaluation, without comprehensively integrating sustainability dimensions and strategic analysis frameworks. Additionally, limited research has specifically addressed the contextual dynamics of agriculture-based economic development in local regions, particularly using structured strategic approaches (Biba, 2022; Chen et al., 2024; Germanier, 2023; Gita et al., 2025; Ilsan et al., 2020).

This gap indicates the need for research that not only analyzes the internal and external factors influencing agricultural development but also formulates strategic directions that are

adaptive, context-specific, and sustainability-oriented. Therefore, this study offers a novel contribution by integrating a strategic analytical approach with the concept of sustainable agriculture-based economic development, particularly in the context of a developing rural region. The novelty of this research lies in its comprehensive approach that combines sustainability principles with strategic economic development analysis to enhance community welfare. Unlike previous studies that focus on isolated variables, this study emphasizes a holistic perspective that considers economic, social, and environmental dimensions simultaneously. Moreover, the study provides empirical insights from a specific regional context, thereby enriching the existing literature on localized development strategies.

Accordingly, the objective of this study is to formulate effective strategies for sustainable agriculture-based economic development to improve community welfare in East Luwu Regency. The findings of this research are expected to contribute both theoretically and practically by providing strategic recommendations for policymakers and stakeholders in designing more inclusive and sustainable agricultural development policies., methodology, and research findings. The article should be written within a total length of 8,500–11,000 words, including all main sections, to ensure sufficient depth of analysis while maintaining focus and readability.

2. METHODOLOGY

This study employs a quantitative approach with a descriptive design aimed at formulating strategies for sustainable agriculture-based economic development to enhance community welfare. This approach was selected as it enables the systematic and measurable identification and evaluation of strategic factors influencing agricultural sector development.

The study was conducted in East Luwu Regency, which was purposively selected due to its significant agricultural potential and the challenges it faces in achieving sustainable agricultural development. The data used in this study consist of both primary and secondary data. Primary data were collected through questionnaires and interviews, while secondary data were obtained from official reports, publications from statistical agencies, and relevant government documents. The sample size was determined using the Lemeshow Formula for an unknown population, resulting in a total of 96 respondents. A purposive sampling technique was employed with the criteria that respondents were active farmers, had at least three years of farming experience, and were directly involved in farm management. The respondents consisted of food crop and plantation farmers distributed across several districts within the study area.

In addition to respondents, this study involved key informants (expert judgment) who were responsible for determining the weights of internal and external factors. A total of five key informants were selected, consisting of: (1) a representative from the local agricultural office, (2) agricultural extension officers, (3) an academic specializing in agricultural or development economics, and (4) a local agricultural practitioner or agribusiness actor. The selection of key informants was based on their expertise, experience, and direct involvement in agricultural sector development.

Data collection techniques included questionnaires, interviews, and documentation. The questionnaire served as the primary instrument for obtaining quantitative data related to internal and external factors affecting agriculture-based economic development. The instrument was designed using a five-point Likert scale to measure respondents' perceptions of current conditions, ranging from very low to very high.

The variables in this study consist of internal factors, including strengths and weaknesses, and external factors, including opportunities and threats. The weighting of each factor was determined through expert judgment by the key informants based on their relative importance, with the total weight equal to one. Meanwhile, rating values were obtained from respondents' (farmers') assessments of actual conditions in the field.

Data analysis was conducted using a quantitative SWOT analysis through the construction of IFAS (Internal Factor Analysis Summary) and EFAS (External Factor Analysis Summary) matrices. Each factor was assigned a weight and a rating, and the score was calculated by multiplying the two values. The results were then used to determine the strategic position within the SWOT matrix,

consisting of SO, WO, ST, and WT strategies. Finally, priority strategies were formulated based on the most dominant combinations of internal and external factors to generate appropriate policy recommendations for sustainable agriculture-based economic development.

3. RESULT

3.1. Respondent Characteristics

The respondents in this study consisted of 96 farmers in East Luwu Regency who are actively engaged in agricultural activities. The majority of respondents have more than three years of farming experience and are involved in both food crop and plantation farming. In terms of gender distribution, male farmers dominate the sample, reflecting the general structure of agricultural labor in rural areas. Overall, these characteristics indicate that the respondents possess sufficient experience and practical knowledge to provide reliable information regarding the current conditions of agriculture-based economic development. A summary of the characteristics of the respondents in this study can be seen in table 1 below.

Table 1. Respondent Characteristics

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	70	72.9
	Female	26	27.1
Farming Experience	< 3 years	20	20.8
	≥ 3 years	76	79.2
Type of Commodity	Food Crops	50	52.1
	Plantation Crops	46	47.9

Source; *research result*

3.2. Identification of Internal Factors

The identification of internal factors in sustainable agriculture-based economic development was conducted based on data obtained from questionnaires and interviews. These internal factors consist of strengths and weaknesses that influence the capacity of the agricultural sector to support community welfare in East Luwu Regency.

Table 2. Internal Factors (Strengths and Weaknesses)

Code	Internal Factors	Description
S1	Strength	Availability of extensive agricultural land
S2	Strength	Presence of leading commodities (cocoa, rice, etc.)
S3	Strength	Availability of local labor
S4	Strength	Government support in the agricultural sector
W1	Weakness	Low adoption of agricultural technology
W2	Weakness	Limited market access
W3	Weakness	Limited capital among farmers
W4	Weakness	Low value-added of agricultural products

Source; *research result*

The internal factor analysis indicates that the agricultural sector in East Luwu Regency possesses considerable strengths, particularly in terms of natural resource availability and institutional support. The presence of extensive agricultural land and leading commodities provides a strong foundation for developing a sustainable agriculture-based economy. Additionally, the availability of local labor and government support further enhances the sector's development potential. However, these strengths are counterbalanced by several significant weaknesses. The low adoption of agricultural technology limits productivity and efficiency, while restricted market access hinders farmers from obtaining optimal prices. Furthermore, limited capital and the low value-added

of agricultural products reduce income-generating opportunities for farmers. These findings suggest that although the region has strong internal potential, structural constraints must be addressed to fully optimize agricultural development.

3.3. Identification of External Factors

The identification of external factors was carried out to examine opportunities and threats that may influence sustainable agriculture-based economic development. These factors originate from outside the agricultural system but significantly affect its performance and long-term sustainability.

Table 3. External Factors (Opportunities and Threats)

Code	External Factors	Description
O1	Opportunity	High market demand for agricultural products
O2	Opportunity	Government development programs
O3	Opportunity	Export potential of agricultural commodities
O4	Opportunity	Advancement of agricultural technology
T1	Threat	Climate change impacts
T2	Threat	Fluctuation of commodity prices
T3	Threat	Land conversion
T4	Threat	Global market competition

Source; *research result*

The external factor analysis reveals that significant opportunities exist to support the development of a sustainable agriculture-based economy. Increasing market demand and export potential provide strong incentives for expanding agricultural production and improving competitiveness. Government programs and technological advancements further create favorable conditions for innovation and sectoral growth. Nevertheless, these opportunities are accompanied by substantial threats that may hinder development efforts. Climate change poses serious risks to agricultural productivity and sustainability, while price volatility creates income uncertainty for farmers. In addition, land conversion and intensifying global competition present long-term challenges that require strategic responses. Therefore, the ability to capitalize on opportunities while mitigating external threats is essential for achieving sustainable agricultural development in the region.

3.4. IFAS Analysis (Internal Factor Analysis Summary)

The Internal Factor Analysis Summary (IFAS) matrix is used to evaluate the relative strengths and weaknesses influencing sustainable agriculture-based economic development. Each internal factor is assigned a weight based on its importance and a rating based on its current condition, allowing for the calculation of a weighted score that reflects the overall internal strategic position.

Table 4. IFAS Matrix

Factors	Weight	Rating	Score
Strengths			
Availability of extensive agricultural land	0.15	4	0.60
Presence of leading commodities (cocoa, rice, etc.)	0.12	4	0.48
Availability of local labor	0.10	3	0.30

Government support in the agricultural sector	0.13	3	0.39
Total Strengths			1.77
Weaknesses			
Low adoption of agricultural technology	0.12	2	0.24
Limited market access	0.10	2	0.20
Limited capital among farmers	0.14	2	0.28
Low value-added of agricultural products	0.14	2	0.28
Total Weaknesses			1.00
Internal Score (X)	Strengths - Weaknesses = 1.77 - 1.00 = 0.77		

Source; research result

The results of the IFAS matrix indicate that the total score for strengths (1.77) is significantly higher than that for weaknesses (1.00), resulting in a positive internal score of 0.77. This finding suggests that the internal conditions of the agricultural sector in East Luwu Regency are relatively strong and supportive of development efforts. The dominance of strengths, particularly in terms of land availability and leading commodities, reflects a solid foundation for advancing agriculture-based economic development. However, the presence of notable weaknesses, such as low technological adoption and limited market access, indicates that internal improvements are still required. Overall, the positive internal score demonstrates that the region has the capacity to leverage its strengths while addressing its weaknesses to achieve sustainable development outcomes.

3.5. EFAS Analysis (External Factor Analysis Summary)

The External Factor Analysis Summary (EFAS) matrix is utilized to assess the opportunities and threats that influence the development of the agricultural sector. Similar to the IFAS matrix, each external factor is evaluated using assigned weights and ratings to determine its relative impact on the strategic environment.

Table 5. EFAS Matrix

Factors	Weight	Rating	Score
Opportunities			
High market demand for agricultural products	0.15	4	0.60
Government development programs	0.13	4	0.52
Export potential of agricultural commodities	0.12	3	0.36
Advancement of agricultural technology	0.10	3	0.30
Total Opportunities			1.78
Threats			
Climate change impacts	0.12	2	0.24
Fluctuation of commodity prices	0.14	2	0.28
Land conversion	0.12	2	0.24
Global market competition	0.12	2	0.24
Total Threats			1.00

External Score (Y)
Opportunities - Threats = 1.78 - 1.00 = 0.78

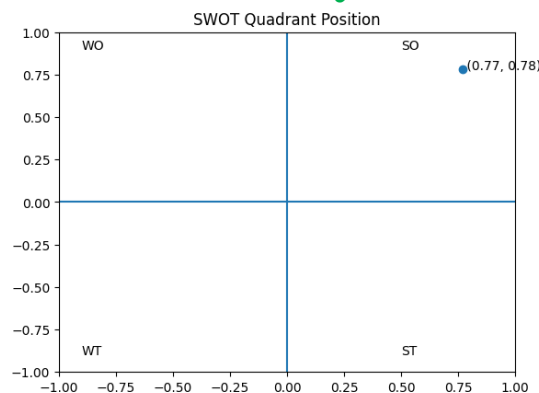
Source; *research result*

The EFAS matrix results show that the total score for opportunities (1.78) exceeds that of threats (1.00), yielding a positive external score of 0.78. This indicates that the external environment provides favorable conditions for the development of a sustainable agriculture-based economy in East Luwu Regency. High market demand and strong government support emerge as key drivers that can be leveraged to enhance agricultural productivity and competitiveness. Nevertheless, several external threats, particularly climate change and price volatility, pose significant risks that may disrupt development progress. Despite these challenges, the overall positive external score suggests that existing opportunities outweigh the threats, thereby creating a conducive environment for strategic expansion and development.

3.6. Strategic Position (SWOT Quadrant)

The strategic position of sustainable agriculture-based economic development was determined based on the results of the IFAS and EFAS analyses. The internal score (X) of 0.77 and the external score (Y) of 0.78 were plotted on a Cartesian diagram to identify the appropriate strategic quadrant. This positioning provides a clear indication of the strategic direction that should be adopted to optimize agricultural development.

Picture 1. SWOT Quadrant



Source; *research result*

Based on the SWOT quadrant diagram, the strategic position is located in Quadrant I (SO quadrant), which represents a strong internal condition combined with favorable external opportunities. This position indicates that the agricultural sector in East Luwu Regency is in a highly advantageous situation, where strengths can be maximized to exploit existing opportunities. The dominance of strengths, such as land availability and leading commodities, along with opportunities like market demand and government support, suggests that an aggressive or growth-oriented strategy is most appropriate. Therefore, development efforts should focus on expansion, innovation, and optimization of available resources to accelerate sustainable economic growth and improve community welfare.

3.7. SWOT Strategy Formulation

Based on the identified internal and external factors, as well as the strategic position in the SWOT quadrant, a set of strategic alternatives was formulated using the SWOT matrix. This matrix integrates strengths, weaknesses, opportunities, and threats to generate comprehensive strategies that can support sustainable agriculture-based economic development.

Table 6. SWOT Strategy Matrix

Strategy Type	Strategy Formulation
SO (Strength–Opportunity)	Optimize agricultural land and leading commodities to meet increasing market demand and expand export opportunities
WO (Weakness–Opportunity)	Improve the adoption of agricultural technology to overcome limited market access and enhance productivity
ST (Strength–Threat)	Utilize government support and local resources to mitigate risks from climate change and price fluctuations
WT (Weakness–Threat)	Strengthen farmers’ capacity and improve farm management efficiency to reduce vulnerability to external threats

Source; *research result*

The SWOT strategy matrix highlights several strategic priorities based on the interaction between internal and external factors. The SO strategy emerges as the most dominant approach, emphasizing the importance of leveraging existing strengths to capitalize on available opportunities. This includes optimizing land use and enhancing the competitiveness of leading commodities in both domestic and international markets. Meanwhile, WO strategies focus on addressing internal weaknesses, particularly through technological improvements and better market access. ST strategies aim to use internal strengths to mitigate external risks, such as climate change and price instability, while WT strategies emphasize defensive measures to minimize vulnerabilities. Overall, the combination of these strategies provides a comprehensive framework for achieving sustainable agriculture-based economic development and improving community welfare.

3.8. Main Strategy Analysis (SO Strategy)

Based on the results of the quantitative SWOT analysis, the strategic position of sustainable agriculture-based economic development in East Luwu Regency is located in Quadrant I (Strength–Opportunity), with positive values on both the internal and external axes. This position indicates that the region possesses strong internal capabilities supported by significant external opportunities. Therefore, the most appropriate strategic approach is an aggressive or growth-oriented strategy, which emphasizes leveraging existing strengths to maximize available opportunities.

Substantively, strengths such as the availability of extensive agricultural land, the presence of leading commodities, and strong government support serve as key drivers for sustainable agricultural development. At the same time, opportunities such as increasing market demand, export potential, and advancements in agricultural technology provide a favorable environment for enhancing productivity and competitiveness. Accordingly, the primary strategy should focus on expanding production capacity, improving product quality, and strengthening market access at both domestic and international levels. These efforts are expected to promote inclusive and sustainable economic growth while improving community welfare.

Table 7. SO (Strength–Opportunity) Strategy

No	SO Strategy	Implementation Description
1	Optimization of agricultural land utilization	Increasing land productivity through efficient and sustainable cropping patterns
2	Development of leading commodities	Enhancing the quality and quantity of key commodities such as cocoa and rice to meet market demand
3	Improvement of market access and export expansion	Expanding marketing networks through partnerships and digital market platforms
4	Adoption of agricultural technology	Utilizing modern technologies to improve production efficiency and product quality
5	Strengthening government policy support	Optimizing government programs, subsidies, and farmer training initiatives

No	SO Strategy	Implementation Description
6	Development of value-added agribusiness	Promoting agro-processing to increase the economic value of agricultural products
7	Enhancement of farmers' capacity	Providing training and assistance in farm management and agricultural innovation

Source; *research result*

The SO strategy matrix highlights a set of proactive and growth-oriented strategies that prioritize the optimization of internal strengths to capitalize on external opportunities. The emphasis on land utilization and the development of leading commodities reflects the importance of maximizing existing resource potential to meet increasing market demand. Furthermore, improving market access and promoting export expansion are essential for enhancing competitiveness and ensuring sustainable income for farmers. The adoption of modern agricultural technologies and the strengthening of institutional support play a crucial role in improving efficiency and resilience within the agricultural sector. Additionally, the development of value-added agribusiness and the enhancement of farmers' capacity contribute to long-term sustainability by increasing productivity, innovation, and economic diversification. Overall, these strategies provide a comprehensive framework for achieving sustainable agriculture-based economic development and significantly improving community welfare.

4. DISCUSSION

The selection of the SO (Strength–Opportunity) strategy as the primary approach is strongly justified by the results of the SWOT analysis, which indicate a dominant internal strength and favorable external opportunities. This strategic position suggests that the agricultural sector in East Luwu Regency is in a progressive and advantageous condition, allowing for expansion-oriented development. The presence of extensive agricultural land, leading commodities, and institutional support provides a solid foundation for accelerating agricultural-based economic growth.

The implementation of the SO strategy involves several key actions. First, optimizing land utilization through improved cropping patterns and sustainable practices can significantly enhance productivity. Second, strengthening the development of leading commodities such as cocoa and rice is essential to meet increasing market demand and improve competitiveness. Third, expanding market access through partnerships and digital platforms enables farmers to reach broader markets and obtain better prices. Additionally, the adoption of modern agricultural technologies and the strengthening of government support programs are crucial to improving efficiency, resilience, and sustainability. These integrated efforts ensure that the agricultural sector not only grows but also adapts to dynamic economic and environmental conditions.

The findings of this study are consistent with the principles of Sustainable Development, which emphasize the integration of economic growth, social equity, and environmental sustainability. The SO strategy reflects a development approach that maximizes existing resources while ensuring long-term sustainability. This aligns with the perspective of Michael Todaro, who argues that development should focus not only on economic growth but also on improving the quality of life and reducing inequality (Economics & Library, n.d.; Githongo et al., 2023; Xu et al., 2024).

Furthermore, the emphasis on strengthening agricultural productivity and innovation is in line with the ideas of Theodore Schultz, who highlighted the importance of human capital and technological advancement in transforming traditional agriculture into a more productive sector. Previous empirical studies have also shown that regions with strong internal capacities and access to market opportunities tend to achieve more sustainable agricultural development outcomes. Thus,

this study reinforces existing literature while providing contextual evidence from a local perspective, particularly in developing regions (Chen et al., 2024; Sechel & Mariasiu, 2022).

The implementation of the SO strategy has significant implications for improving community welfare, particularly among farmers. By optimizing agricultural production and enhancing market access, farmers are likely to experience increased income and economic stability. The development of value-added agribusiness further contributes to income diversification, reducing dependence on raw commodity sales and increasing resilience against price fluctuations.

In addition, the adoption of modern agricultural technologies and capacity-building programs can improve farmers' skills, productivity, and efficiency, leading to better resource management and higher yields. From a broader perspective, these improvements contribute to rural economic growth, job creation, and poverty reduction. Therefore, the SO strategy not only supports agricultural sector development but also plays a crucial role in promoting inclusive and sustainable welfare improvements within the community.

5. CONCLUSION

Based on the results of the study, it was found that sustainable agriculture-based economic development in East Luwu Regency is positioned in a strong strategic condition, namely in Quadrant I (Strength–Opportunity). This indicates that the agricultural sector in the region possesses dominant internal strengths, such as the availability of extensive agricultural land, the presence of leading commodities, and strong government support, which are supported by external opportunities including high market demand, export potential, and advancements in agricultural technology. These findings confirm that the most appropriate strategy is an aggressive, growth-oriented approach that leverages strengths to maximize existing opportunities. This represents a significant finding, as it demonstrates that agricultural development in the region not only has strong potential but also a high level of readiness for progressive and sustainable advancement.

The results of this study have significant implications, particularly in improving community welfare. The implementation of development strategies focused on optimizing agricultural resources, increasing productivity, and strengthening market access has the potential to enhance farmers' income and create economic stability at the household level. Furthermore, the development of value-added agribusiness can expand employment opportunities and stimulate rural economic growth. Therefore, sustainable agriculture-based economic development not only contributes to increased agricultural output but also plays a crucial role in poverty reduction and improving the overall quality of life.

From a policy perspective, local governments need to strengthen development strategies that are oriented toward optimizing local potential while maintaining sustainability principles. This can be achieved through improving farmers' access to modern agricultural technologies, strengthening marketing systems through digitalization and partnerships, and enhancing human resource capacity through training and continuous assistance. In addition, policies that support the development of downstream agricultural industries are essential to increase product value-added and competitiveness in the market. Synergy among government, business actors, and the community is crucial to ensure the effective and sustainable implementation of these strategies.

For future research, it is recommended to develop more comprehensive studies by integrating quantitative and qualitative approaches, as well as expanding the scope of research areas to obtain more generalizable findings. Further studies may also explore in greater depth the social and institutional factors influencing the success of sustainable agricultural development strategies. Moreover, the application of more advanced analytical methods, such as econometric models or system dynamics analysis, could provide broader insights into the relationship between agricultural development and community welfare.

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