

## ANALYSIS OF VEGETABLE FARMING INCOME AND ITS CONTRIBUTION TO FAMILY INCOME IN GEMPOL VILLAGE, PEJATEN VILLAGE, KRAMATWATU DISTRICT, SERANG REGENCY

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### Abstract

This study aims to analyze vegetable farming income and its contribution to household income in Gempol Hamlet, Pejaten Village, Kramatwatu Subdistrict, Serang Regency. The background of this study is based on the shift from rice to vegetable cultivation, which has a shorter growing cycle and the potential to increase household cash flow. The research method employs a quantitative approach with data collection through interviews, observations, and documentation. The results indicate that vegetable farming makes a significant contribution to household income, despite facing relatively high production costs and market price fluctuations. Family support for vegetable farming is also evident in social, economic, and educational aspects. The policy implications of this study highlight the need for local government support in the form of providing production facilities, more stable market access, and farmer empowerment programs to enhance the efficiency and competitiveness of vegetable farming. Thus, vegetable farming not only plays a role in improving the well-being of farming households but also supports rural economic development.

**Keywords:** *Vegetable farming, family income, economic contribution.*

### INTRODUCTION

The agricultural sector plays a vital role in national economic development. Agriculture not only provides food for the population but also serves as a supplier of raw materials for the processing industry, a source of foreign exchange through commodity exports, and a provider of employment for the majority of the rural workforce. In addition, the agricultural sector plays a crucial role in maintaining environmental balance and ecosystem sustainability. In Indonesia, the agricultural sector is divided into several subsectors, namely the food crops, horticulture, plantation, and livestock subsectors. Among these subsectors, horticulture makes a significant contribution to supporting national food security. Horticultural commodities, particularly vegetables, serve as a source of nutritious food, enhance dietary diversity, and provide opportunities for increased income for farmers. According to Saputri et al. (2018), the horticulture subsector not only increases the availability of vegetables and fruits but also improves the quality of life for communities by enhancing access to resources and technology. This aligns with 2023 data from the Central Statistics Agency (BPS), which states that the agricultural sector contributes approximately 13.5% to Indonesia's GDP and employs around 29% of the total national workforce.

Data from 2024 shows that Indonesia imported 935,000 tons of vegetables worth US\$1.09 billion. This situation indicates that while local production is significant, it has not yet been able to fully meet domestic demand, resulting in continued reliance on imports. One region showing great potential for horticultural development is Serang Regency, Banten Province. This region possesses agroclimatic conditions conducive to vegetable cultivation, as well as a socio-economic structure still dominated by the agricultural sector. Gempol Village, located in Pejaten Village, Kramatwatu Subdistrict, is one of the prominent vegetable production centers in the area.

According to the publication Kramatwatu Subdistrict in Figures (Volume 16, 2024), Gempol Village accounts for approximately 10.83% of the total population of Kramatwatu Subdistrict, with a population density of 3,367 people per square kilometer. The development of this area is marked by increased economic activity, diversification of livelihoods, and improvements in public facilities and infrastructure. Gempol Village in Pejaten Village, Kramatwatu Subdistrict, Serang Regency has experienced significant development in terms of population

density, livelihoods, and public facilities and infrastructure. The majority of residents still work as farmers and traders, but there are now also waste pickers and small business owners.

Data on the increasingly dense population and the region's geographical development show a growing number of public facilities and infrastructure in the Gempol Village area of Pejaten Village, Kramatwatu Subdistrict, Serang Regency. In the context of community development, the family plays a fundamental role as the smallest social unit supporting economic, social, and cultural life. Therefore, the contribution of the family is not only important within the household but also influences community development, including in supporting the agricultural sector and food security in rural areas such as Kampung Gempol. Thus, this article discusses: 1) how much income from vegetable farming is earned by farmers in Kampung Gempol, Pejaten Village, Kramatwatu Subdistrict, Serang Regency?; 2) What is the income from sources other than vegetable farming earned by farmers in Kampung Gempol, Pejaten Village, Kramatwatu Subdistrict, Serang Regency? and 3) What is the contribution of vegetable farming income to the total household income of vegetable farmers in Kampung Gempol, Pejaten Village, Kramatwatu Subdistrict, Serang Regency?.

## **METHOD**

This study employs a descriptive quantitative design. Sugiyono (2014) states that quantitative research involves studying a specific population or sample, collecting data using research instruments, and conducting quantitative analysis to test established hypotheses. This study began by reviewing existing theories and knowledge to identify the underlying causes of the problem. These issues were then tested to determine acceptance or rejection based on data collected from the field. The data obtained from the field consisted of reading interest scores and reading comprehension abilities, presented as quantitative numerical values. The type of research employed was ex-post facto research. Ex-postfacto research is used because, in this study, the research applies treatments to the variables under investigation. In this study, the independent and dependent variables have been explicitly stated, to be subsequently linked as a correlation study or to predict whether the independent variable has a specific influence on the dependent variable.

## **RESULTS AND DISCUSSION**

### **Differences in Income Between Rice and Vegetables**

Rice farming generates gross revenue of approximately Rp25–30 million per hectare per year, with net revenue of IDR15–18 million, resulting in a net profit margin of only **60–72%**. Vegetable farming is more profitable, with gross revenue of IDR40–50 million per hectare per year and net revenue of IDR25–30 million, yielding a profit margin of **50–75%**. This difference indicates that **vegetables are more efficient and liquid**, as the short growing cycle (25–30 days) enables rapid cash flow and allows for repeated harvests up to 8–10 times per year.

### **Contribution to Household Income**

Total household income ranges from IDR35–40 million per year, with vegetable farming accounting for 65–75%. This confirms that vegetable farming is the mainstay of the household economy, while non-farming income (motorcycle taxi driving, construction work, small-scale trading) serves as a supplement and a means of diversifying income sources.

**Table 4.10**  
**Contribution of Farming and Non-Farming Household Income from Vegetable Production**

No	Revenue Categories	Number (of people)	Percentage (%)	Description (%)
1	Vegetable Farming ( $\leq 1$ person)	3	17,85	The mainstay of the household economy
2	Vegetable Farming (2–3 people)	9	56,25	Most families rely on vegetables
3	Vegetable Farming (4 or more people)	4	25,00	The significant contributions of many family members
4	Non-agricultural $\leq 1$ person	5	31,25	Additional income from motorcycle taxi drivers, laborers, and small-scale traders
5	Non-farm workers: 2–3 people	7	43,75	Diversifying sources of income
6	Non-agricultural workers $\geq 4$ people	4	25,00	Large families contribute to the non-agricultural sector
<b>TOTAL</b>		<b>16</b>	<b>100,00</b>	

From the table above, researchers can conclude that total household income ranges from Rp35–40 million per year, with the primary contribution coming from vegetable farming, which accounts for 65–75%. This indicates that vegetable farming serves as the backbone of the household economy, as the majority of the family's financial needs are supported by the output of this sector. Meanwhile, non-farming income derived from informal jobs such as motorcycle taxi drivers, construction workers, and small-scale traders serves as a supplement and a form of income diversification. The role of the non-farming sector is not dominant, but it remains important in maintaining household economic stability, especially during fluctuations in vegetable prices or harvest yields. The majority of families have 2–3 household members who actively contribute to both the agricultural and non-agricultural sectors. This situation reflects families' adaptive strategies in optimally utilizing household labor and demonstrates a pattern of economic diversification aimed at reducing the risk of dependence on a single source of income.

### Positive Factors

Short growing cycles accelerate cash flow; high market demand for fresh vegetables; and crop diversification (Chinese cabbage, water spinach, spinach) strengthen economic resilience and reduce the risk of crop failure.

### Negative Factors/Risks

Production costs are relatively high (seeds, fertilizers, pesticides, labor); market price fluctuations reduce income certainty; and dependence on climate and water makes farming vulnerable to extreme weather.

### Implications

- Economy: Vegetables have an edge in terms of liquidity and profit margins, while rice has an edge in terms of long-term food security.

- Social: Agriculture remains central to the community's identity, even though non-agricultural jobs are becoming increasingly prevalent.
- Sustainability: Consistent policies—such as input subsidies, price stabilization, and market access—are needed to maintain farmers' competitiveness.

Vegetable farming has proven to be an **adaptive and efficient household economic strategy**, making a dominant contribution to family income. However, the sustainability of this enterprise depends heavily on **external risk management** and government policy support. The combination of farming (rice and vegetables) with side jobs serves as a form of **household economic diversification**, which strengthens farmers' socioeconomic resilience amid market and climate dynamics.

## CONCLUSION

Based on the results of the study titled Analysis of Vegetable Farming Income and Its Contribution to Household Income in Gempol Hamlet, Pejaten Village, Kramatwatu Subdistrict, Serang Regency, it can be concluded that:

1. Rice farming still contributes to household income, but profit margins are relatively lower than those of vegetable crops due to the long production cycle and dependence on rainfall.
2. Vegetable farming (Chinese cabbage, water spinach, spinach, red onion) generates higher and faster income due to its short growing cycle, even though production costs are higher.
3. Income from vegetable farming has proven to be the primary source of household cash flow, enabling families to meet their daily needs and improve their well-being.

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