

THE INFLUENCE OF VILLAGE ASSISTANCE FUNDS ON PRODUCTION, PRODUCTION COSTS AND FARMERS' INCOME

(Case Study: Kuta Bale Village, Tigapanah District, Karo Regency,
North Sumatra Province)

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Abstract

This study aims to determine the mechanism of development proposals to analyze the differences before and after the Village Fund Allocation to production costs, production, and farmers' income in the research area. The method of determining the area is done purposively. The method of determining the research sample is the census method by interviewing 32 sample farmers. The data collected are primary data and secondary data. The data analysis method was carried out using the one-sided average difference test using the Paired Sample T-test on SPSS. Based on the results of the study, it was found that (1) the development proposal was carried out by deliberation between the village apparatus and the village community, and (2) there was a significant difference in the production of chilli and tomato plants after the village assistance fund, (3) there was a significant difference in the cost of farming production chilli and tomatoes after the village assistance fund, (4) There is a significant difference in the income of chilli and tomato farmers after the village fund assistance.

Keywords: Village Assistance Fund; Production; Production Costs; Income

Introduction

The development strategy in Indonesia is to increase the equitable distribution of development and its results through sectoral development policies and community performance, especially in rural areas. Village development is a subject of development and a community movement in carrying out development based on awareness to improve a better life. It is known that almost all Indonesians live in rural areas with a population and natural components that have the potential to get assets through the Village Fund Allocation (ADD). Villages can be used as one of Indonesia's first steps in any development program, both natural and human resources. In addition, the village can also be used as a benchmark for the country's progress.

On the other hand, when the life of the village community does not develop and even tends to be bad, the state can be said to have failed. Article 1 of Law Number 6 of 2014 concerning Villages states that the village is a legal community unit that has territorial boundaries that are authorized to regulate and manage government affairs and the interests of the local community based on community initiatives, original rights, and traditional rights issued by the community—recognized and respected in the system of government of the Unitary State of the Republic of

Indonesia. In this regard, to carry out regional autonomy, villages need the authority and ability to find their financial sources and are supported by financial assistance from the centre and regions. Therefore, village finances are a subsystem of state finances. Based on article 71 of Law Number 6 of 2014 concerning villages, it is stated that "village finances are all village rights and obligations that can be valued in money and everything in the form of money or goods related to the implementation of village rights and obligations" (Azzahro, 2016).

Literature Review

The central government seeks development toward an autonomous regional government pattern. In principle, autonomous regions have the rights, authorities and obligations of the regions to regulate and manage their households following the applicable laws and regulations. Law Number 6 of 2014 raises villages to be subjects of government, that is, from just objects of development. The law is committed to protecting and empowering the community, creating a solid foundation for implementing governance and development towards a just, prosperous and prosperous (Maulana, 2017). In addition, based on Law Number 32 of 2004 concerning the government, regions are given the widest possible autonomy to manage all government administration outside the authority of the central government to make regional policies related to service improvement and community empowerment, as well as real and responsible autonomy. The real meaning of carrying out what is his business based on the authority given and the characteristics of a region while being responsible is autonomy which in its implementation must be in line with the aims and objectives of granting autonomy which advances the region and improves welfare (Erni, 2018).

Village development goals include; First, the economic objective is to increase productivity in rural areas to reduce poverty. Second, social goals are directed at the distribution of the welfare of the villagers. Third, cultural goals in the sense of improving the quality of life in general for rural communities. Fourth, the policy's purpose is to grow and develop maximum village community participation in supporting development efforts and utilizing and developing development outcomes (Nurman, 2012). Finally, village development needs to be directed at the realization of an "independent village", namely a village whose residents have a high enthusiasm for development, who can identify village problems, develop plans to solve problems and implement these plans as efficiently and effectively as possible, by first primarily relies on resources and funds from rural communities, and can maintain the continuity of the development process (Nurman, 2012).

One aspect that plays a role in village development is village finance and assets. Village finances are related to village rights and obligations which are valued in money. In contrast, village assets are derived from village assets (Rahmayanti, 2017). The Village Fund Allocation (ADD) is part of village finances obtained from regional tax revenue sharing and part of the central and regional financial balance funds received by districts/cities for villages distributed proportionally. The Village Fund Allocation (ADD) implies that the village has the authority to regulate and manage its household, which involves the role of the government as a public service provider in the planning and implementation process of regional development involving the community at the village level (Erni, 2018). The allocation of village funds is a stimulus for the independence of the village community in carrying out development in their area. The Village Fund Allocation (ADD) is a balancing fund received by the district in the district's regional revenue and expenditure budget after deducting the special allocation fund (Permendagri No. 113 of 2014 Article 1 Paragraph 10).

Kuta Bale Village is a village located in Tigapanah District, Karo Regency. This village has an area of 0.53 km² with a population of 222 people. Of the total population, 127 people work as farmers. The Village Fund Allocation (ADD) has been activated since 2015 by the central

government. All villages in Indonesia have received their share according to the regulations. Juma Talin Karo is a farming area for the residents of Kuta Bale Village, whose construction costs the most. In addition, researchers are interested in choosing Jalan Juma Tali Karo because it has a construction volume of 2.5 m x 560 m which is larger than other road constructions. With such a large development volume, the affected farmers are also greater than in other cultivated areas. Researchers are interested in examining the effect of the Village Fund Allocation on the costs, production and income in Kuta Bale Village because, before the construction of the Juma Talin Karo road, farmers experienced difficulties. The question difficulty is that the farmers who work in the Juma Talin Karo area have difficulty accessing them. They also have problems transporting their produce to the market because the roads are still not good. In addition, when there is no road construction, farmers need much time to reach their farm fields. Therefore, with the construction of this road, it is hoped that the problems experienced by farmers can be resolved. This study analyses the differences before and after the Village Fund Allocation in production, production costs and farmers' income.

Research Method

The data used in this study are primary data and secondary data. Primary data were obtained through direct interviews with the samples using a list of questions or questionnaires. At the same time, secondary data were obtained from publications published by the Central Statistics Agency of North Sumatra, Central Bureau of Statistics Kab. Karo and from the Kuta Bale Village Government and other literature to find out the data related to the research.

Results and Discussion

Cost Components of Chilli and Tomato Farming

The components of chilli and tomato farming include fixed costs and variable costs. Variable costs are costs whose value varies depending on the amount of use and production. If the number of production increases or increases, the variable costs will increase and vice versa. The variable costs in chilli and tomato farming are purchasing seeds, mulch, fertilizer, pesticide, machine rental, and labour.

Table 1. Average of Variable Costs of Chilli and Tomato Plants Before and After the Village Fund Assistance

Cost component	Village Fund Assistance		Transformation
	Before	After	
Seed			
a. Chilli	279,600	285,333	5,733
b. Tomato	234,412	248,235	13,824
Mulching	49,2941.20	529,411.80	36,470.59
Fertilizer			
a. Chilli	2,177,666.60	2,338,000	160,333.30
b. Tomato	2,715,705.9	2,878,823.5	163,118
c. Organic	308,823.52	370,588.23	61,765
Pesticide			
a. Chilli	1,909,133	2,130,667	221,533
b. Tomato	3,112,118	3,468,824	356,706
Rent Machine	0	141,176.47	141,176.47
Labour			
a. Chilli	5,921,667	5,970,000	48,333.33
b. Tomato	6,325,000	6,405,882.4	-80,882.4

Table 1 shows the cost of purchasing chilli and tomato seeds after the village fund assistance. The additional cost of purchasing chilli seeds is Rp 5,733, and tomato seeds are Rp 13,824. The cost of purchasing mulch also changed after the village fund assistance, which was Rp 36,470.59. This is due to an increase in market prices. For the use of fertilizers, there was an increase of Rp. 160,333.30 for chilli plants, Rp. One hundred sixty-three thousand one hundred eighteen for tomato plants, and Rp. 61,765 after the village fund assistance. This is because chilli farmers use fertilizers to increase their production. Meanwhile, pesticides changed by Rp. 221,533 for chilli plants and Rp. 356,706 for tomatoes after the village fund assistance. The use of machines or tractors can be carried out after the construction of the farm road. So it can be seen that the average cost of renting a machine or tractor is Rp. 141,176.5. The use of labour for chilli plants changed by Rp. 48,333.33. While for tomato plants decreased by -Rp. 80,882.4.

Fixed costs are costs that are not used up in one production period. The amount of fixed costs do not depend on the amount of output produced. Fixed costs must be incurred even though there is no production. The fixed cost in this chilli and tomato farming is equipment depreciation. The depreciation cost is the value contained in a tool by looking at the initial price of the item and the duration of its use. The purpose of this depreciation cost is to determine the cost of maintaining the equipment used in the production process.

Table 2. Equipment Depreciation Costs Before and After Village Fund Assistance

Cost component	Village Fund Assistance	
	Before	After
Depreciation Costs	37,372.3	37,372.3

Table 2 shows that the average depreciation cost in chilli and tomato farming is Rp. 37,372.3. The depreciation of the tool in question is in the form of a hoe, a sprayer and a bucket.

Total production costs are the costs incurred in chilli and tomato farming, consisting of variable and fixed costs. Variable costs include seed, mulch, fertilizer, pesticides, machine rental, and labour. Fixed costs consist of equipment depreciation costs. The details of the total costs for chilli and tomato plants can be seen in Table 3.

Table 3. Total Cost of Chilli Plant Production Before and After the Village Fund Assistance

Component	Before		After		Transformation (Rp)
	Total (Rp)	Average (Rp)	Total (Rp)	Average (Rp)	
Variable cost (VC)					
Seed	4,194,000	279,600	4,280,000	285,333	86,000
Mulching	3,725,000	248,333.33	3,900,000	260,000	175,000
Organic Fertilizer	2,325,000	155,000	2,760,000	184,000	435,000
Fertilizer	32,665,000	2,177,666.7	35,070,000	2,338,000	2,405,000
Pesticide	28,637,000	1,909,133	39,350,000	2,623,333	10,713,000
Rent Machine	0	0	750,000	50,000	750,000
Labour	88,825,000	5,921,666.67	89,550,000	5,970,000	725,000
Total	160,371,000	10,691,400	175,660,000	11,710,666	15,289,000
Fixed cost (FC)					
Depreciation	564,397.07	37,626.47	564,397.07	37,626.47	0
Total	564,397.07	37,626.47	564,397.07	37,626.47	0
Total (VC+FC)	160,935,397	10,729,026	176,224,397	11,748,293	15,289,000

Table 3 shows that the total cost of production before the village assistance fund for chilli plants was Rp. 160,935,397. The results obtained from the variable cost of Rp. 160,371,000, totalled with a fixed cost of Rp. 564,397. While the total cost of producing chilli plants after the village assistance fund was Rp. 176,224,397. These results are obtained from the sum of the variable costs of Rp. 175,660,000 and a fixed fee of Rp. 564,397. The total cost of production of tomato plants before and after the village fund assistance can be seen in Table 4.

Table 4. Total Production Cost of Tomato Plants Before and After the Village Fund Assistance

Component	Before		After		Transformation (Rp)
	Total (Rp)	Average (Rp)	Total (Rp)	Average (Rp)	
Variable cost (VC)					
Seed	3,985,000	234,412	4,220,000	248,235	86,000
Mulching	4,655,000	273,823.52	5,100,000	300,000	175,000
Organic Fertilizer	2,925,000	172,058.82	3,540,000	208,235.29	435,000
Fertilizer	46,167,000	2,715,705.88	48,940,000	2,878,823.52	2,405,000
Pesticide	52,906,000	3,112,118	58,970,000	3,468.82	10,713,000
Rent Machine	0	0	16,950,000	97,058.82	750,000
Labour	107,525,000	6,325,000	108,900,000	6,405,882.4	
Total	218,163,000	12,559,295	231,320,000	13,607,059	725,000
Fixed cost (FC)					15,289,000
Depreciation	635,328	37,372.27	635,328	37,372.27	
Total	635,328	37,372.27	635,328	37,372.27	0
Total Cost (VC+FC)	218,798,328	12,870,490	231,955,328	13,644,431	26,314,000

Table 4 shows that the total production cost of tomato plants before the village fund assistance was Rp. 218,798,328 obtained from the sum of the variable costs of Rp. 218,163,000 and fixed costs of Rp. 635,328. The total cost of production of tomato plants after the village fund assistance is Rp. 231,955,328 obtained from the sum of the variable costs of Rp. 231,320,000 and a fixed fee of Rp. 635,328.

Average Farming Income

The revenue results from the amount of production multiplied by the price expressed in the rupiah. The total revenue before and after for chilli and tomato plants can be seen in Table 5.

Table 5. Average Chilli and Tomato Farming Income Before and After Village Fund Assistance

Description	Before	After	Transformation
Chilli			
Production (kg)	2,133.33	2,146.66	13.33
Price (Rp)	18,200	41,333.33	23,133.33
Revenue	38,826,666.61	94,515,272.37	55,688,605.76
Production cost (Rp)	10,729,026	11,748,293	1,019,267
Income (Rp)	28,237,640.2	83,685,040.2	55,447,400
Tomato			
Production (kg)	8,582.35	8,611.76	29.41
Price (Rp)	4,147.05	2,352.94	-1,794.11
Revenue	35,591,434	22,145,306	-13,446,128
Production cost (Rp)	12,870,489.88	13,644,431	773,941.12
Income (Rp)	22,673,627.76	8,326,157.17	-14,347,470.58

Table 5 shows that chilli production before the village fund assistance was 2,133.33 kg for Rp. 18,200/kg. The revenue obtained for chilli plants before the village fund assistance was Rp. 38,826,666.61. Meanwhile, after the village fund assistance, the production of chilli plants is 2,146.66 kg for Rp. 41,333.3 with average revenue of Rp. 94,515,272.37. The average income received by chilli farmers before the village fund assistance was IDR 28,237,640.2. While the average income of chilli farmers after the village fund assistance is Rp. 83,685,040.2. In tomato farming, the production before the village fund assistance was 8,582.35 kg for Rp. 4,147.05/kg. The revenue obtained for tomato plants before the village fund assistance was Rp. 35,591,434. Meanwhile, after the village fund assistance, the production of tomato plants is 8,611.76 kg at a price of Rp. 2,352.94/kg with a total of Rp. 22,145,306. the average income received by tomato farmers before the village fund assistance was Rp. 22,673,627.76. While the average income of tomato farmers after the village fund assistance is Rp. 8,326,157.17.

Mean Difference Test (Paired Sample T-test)

The difference in chilli production before and after the village aid fund was analyzed using the Paired Sample T-test; the significance value was 0.010. The significance value is smaller than the alpha (α) value, which is 0.05. This shows that there is a significant difference between chilli production before village fund assistance and after village fund assistance. For the difference in the production of tomato plants before and after the village assistance fund, a significance value of 0.001 was obtained. This value is smaller than the alpha value (α), which is 0.05. This shows that there is a significant difference in tomato production before the village fund assistance and after the village fund assistance.

The difference in the production costs of chilli plants before and after the village aid fund was analyzed using the Paired Sample T-test; the significance value was 0.00. The significance value is smaller than the alpha (α) value, which is 0.05. This shows that there is a significant difference between the production costs of chilli before the village fund assistance and after the village fund assistance. The difference in production costs of tomato plants before and after the village aid fund was analyzed using the Paired Sample T-test; the significance value was 0.01. Again, the significance value is smaller than the alpha (α) value, which is 0.05. This shows that there is a significant difference between the cost of tomato production before the village fund assistance and after the village fund assistance.

Furthermore, the difference in the income of chilli plants before and after the village assistance fund was analyzed using the Paired Sample T-test; the significance value was 0.00. The significance value is smaller than the alpha (α) value, which is 0.05. This shows that there is a significant difference between chilli farming income before village fund assistance and after village fund assistance. Moreover, the difference in the income of tomato farming before and after the village aid fund was analyzed using the Paired Sample T-test; the significance value was 0.00. The significance value is smaller than the alpha (α) value, which is 0.05. This shows that there is a significant difference between the income of tomato farming before the village fund assistance and after the village fund assistance.

Conclusion

This study concludes that there are significant differences in the production of chilli and tomato plants before and after the village aid fund. The production of chilli and tomato plants both experienced an increase in yield after the assistance of village funds. Significant differences also occur in chilli and tomato farming production costs before and after the village aid fund. The production costs of chilli and tomato plants have increased after the assistance of village funds due to the increase in the prices of production factors. In addition, significant differences also occur in the income of chilli and tomato farmers before and after the village assistance fund. The

income of farmers has increased after the assistance of village funds. Tomato farmers' income has decreased after the village fund assistance due to the low selling price of tomatoes.

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