



Analysis of Income Level and Welfare of Lada Farmer Household (*Piper Nigrum L.*) in Bantilang Village, Towuti Subdistrict, East Luwu Regency

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Abstract

East Luwu Regency is one of the largest pepper centers in South Sulawesi Province. This study aims to: (1) know the production pepper farming, (2) analyze farmers' income from pepper farming, (3) analyze the household income of pepper farmers and (4) analyze the level of welfare of pepper farmer households in Bantilang Village, Towuti District, East Luwu Regency. This research was conducted in Bantilang Village, Towuti District, East Luwu Regency from July to August 2021. The sample is 42 pepper farmers. The data was analysed using descriptive quantitative method. The results showed that (1) the level of pepper production in Bantilang Village, Towuti District, East Luwu Regency was quite high, that is 938.39 Kg/Ha. The income of pepper farmers is Rp. 4,353,953/month with the R/C-Ratio of 4.39, (2) household income of pepper farmers is relatively high, where their incomes are generated from pepper farming, other farming, outside farming and income of household members, with the average household income of pepper farmers is Rp. 13,544,548/month, (3) the welfare of farmer households is high, where as many as 41 farmers are included in the prosperous category (97.62%).

Keywords: Pepper, Income, Welfare

A. Introduction

Pepper (*Piper Nigrum L.*) is a spice plant that plays an important role in the Indonesian economy as the leading commodity of the plantation sector because it is of high economic value and becomes one of the world's trade commodities. More than 80% of Indonesia's pepper products are exported, making pepper a source of state foreign exchange. Even since ancient times Indonesia is known as the main producer of pepper in the world, besides that pepper is one of the most important spices among other spices in terms of its very distinctive use and cannot be replaced with other spices so it is nicknamed the king of spices or king of spices (Kementerian Pertanian, 2013).

South Sulawesi is one of the potential Indonesian regions in the development of pepper farming. One of the areas that cultivate pepper farming is East Luwu Regency. East Luwu Regency is one of the largest pepper centers in South Sulawesi Province. Head of East Luwu Agriculture Office, Muharif stated that pepper is a superior prima donna commodity that can

sustain the economy of the community, then Bantilang Village is one of the best quality pepper producing areas and also earned the nickname "pepper barn" in East Luwu Regency.

Table 1. Land Area, Production and Productivity of Pepper in East Luwu Regency 2016-2020

No	Year	Land(Ha)	Production(Ton)	Productivity(Ton/Ha)
1	2016	3.576	1.957	0,547
2	2017	3.822	2.691	0,704
3	2018	3.968	3.223	0,812
4	2019	3.966	3.073	0,774
5	2020	3.945	3.765	0,699
Average		3.855,4	2.741,8	0,7072

Source: Secondary Data: BPS Luwu Timur 2020

This penenlitian aims to find out the production and income of pepper farming businesses, analyze the household income of pepper farmers and analyze the level of welfare of pepper farmers' households in Bantilang Village, Towuti Subdistrict, East Luwu Regency.

B. Methodology

1. Location and Time

This research was conducted in Bantilang Village, Towuti Subdistrict, East Luwu Regency. This village is one of the largest pepper producing areas in East Luwu Regency. This study was conducted for 2 months from July to Agustus 2021.

2. Population and Sample

The sampling method used in this study is to use the slovin formula with the population in this study is 714 pepper farmers in Bantilang Village, Towuti Subdistrict, East Luwu Regency. Respondents are pepper farmers who are used as samples. Sampling / respondents in this study were randomized and sampled as many as 42 people.

3. Data Collection Techniques

The data collection technique used in this study is with the help of research instruments in the form of questionnaires. In addition, some secondary data was also collected by collecting data from related agencies such as BPS East Luwu Regency and East Luwu District Agriculture Office.

4. Data Analysis Methods

The analytical methods used to answer the purpose of this study are as follows:

Descriptive Analysis

Descriptive analysis is used to explain the production process of pepper farming in Bantilang Village, Towuti Subdistrict, East Luwu Regency.

Analysis of Production and Revenue

Income is the result of business, i.e. gross results with production assessed with money, then reduced by production costs so that net income is obtained by farmers (Mubyarto, 2003). Before calculating income, it is necessary to know the amount of total receipts. How to calculate the acceptance of farmers is to multiply the amount of production and price per kilogram, the formula used is as follows:

$$TR = Y \times Py$$

Information:

TR = Acceptance of Pepper Farm

Y = Pepper Farm Production

Py = Price of Pepper Farming

The formula for pepper farming income is calculated using the following formula (Zahara et al., 2016):

$$\pi = TR - TC$$

Information:

π = Lada Farm Income (Rp)

TR = Lada Farm Revenue (Total Revenue)

TC = Total Cost

Household Income Analysis

The income of a pepper farmer's household is calculated using the following formula:

$$Y = A + B + C + D$$

Information:

Y = Household income (Rp/Mon)

A = Income from pepper farming

B = Income from other farms

C = Income from non-farms

D = Income of other household members

Welfare Level Analysis

Answering the fourth goal is the analysis of the welfare level of pepper farmers in Bantilang Village, Towuti Subdistrict, East Luwu Regency measured using seven indicators of the Central Statistics Agency, namely population, health and nutrition, education, employment, standards and consumption patterns, housing and environment, and social and others. In this study, the classification of household welfare of pepper farmers used consists of two classifications, namely prosperous and not yet prosperous households.

Observational variables are accompanied by classifications and scores that can represent the magnitude of the indicator's classification. Classification level scores on seven indicators of the welfare of rubber farmers are calculated by the guidelines for determining the Range Score (BPS, 2014).

$$RS = \frac{SkT - SkR}{JKI}$$

Information:

RS = Range Score

SkT = Highest Score (7x3=21)

SkR = Lowest Score (7x1=7)

7 = Number of bps welfare indicators (population, health and nutrition, education, employment, consumption patterns or household expenditures, housing and environment, and other social

3 = Highest score in BPS indicator (High)

2 = Medium score in BPS (Medium) indicator

1 = Lowest score in BPS indicator (Low)

JKI = Number of calcifications used (2)

The results of calculations based on the formula obtained Range Score (RS) equal to seven (7), so it can be seen the interval of the score that will describe the level of welfare of the household of pepper farmers. The relationship between the score interval and the level of well-being is as follows:

1. If the score is between 7-14 it means that the farmer's household is not yet prosperous.
2. If the score is between 15-21 means that the farmer's household is prosperous

C. Findings and Discussion

1. Findings

Production and Income of Pepper Farm

Table 1. Production and Income of Lada Farm in Bantilang Village, Towuti Subdistrict, East Luwu Regency.

No.	Description	Average	Per hectare
1.	Production (Kg)	1.051	938,39
2.	Acceptance (Rp)	66.888.793	59.722.136
3.	Variable Cost (Rp):		
a.	Outpouring of Work	5.839.048	5.213.435
b.	Production Costs	9.318.750	8.320.312
4.	Fixed Costs (Rp):		
a.	Land Tax	85.476	76.317
b.	Tool Shrinkage	156.249	139.508
5.	Total Cost (Rp)	15.399.523	13.749.574
6.	Revenue/year(Rp)	52.247.440	46.649.500
7.	Revenue/month (Rp)	4.353.953	3.887.458
8.	R/C Ratio	4,39	3,91

Source: Primary Data, 2021.

Analysis of Pepper Farmers' Household Income

Table 3. Indicators of The Level of Welfare of Pepper Farmers in Bantilang Village, Towuti Subdistrict, East Luwu Regency

Indicators of Well-being	Class			Percentage Amount(%)
	High (%)	Medium (%)	Low (%)	
Population	71,43	4,76	23,81	100
Health & Nutrition	62,5	27,08	10,41	100
Education	33,83	13,10	3,17	96,83
Employment	53,17	19,31	13,76	86,24
Level & Consumption Pattern	49,40	50,60	0,00	100
Housing & Neighborhoods	85,08	14,92	0,16	100
Social & Others	20,00	60,00	20,00	100
Average	53,63	27,11	10,18	97,58

Source: Primary Data, 2021.

Table 4. Category of Welfare Level of Pepper Farmers in Bantilang Village, Towuti Subdistrict, East Luwu Regency

Category	Interval	Sum	Percentage (%)
Prosperous	15-21	41	97,62%
Not yet prosperous	7-14	1	2,38%
Amount		42	100%

Source: Primary Data, 2021.

2. Discussion

Pepper production produced by pepper farmers in Bantilang Village is 1,051 Kg with a productivity of 938.39 Kg. The income obtained by pepper farmers is Rp. 52,247,440 / year and an average of Rp. 4,353,953 / month. Furthermore, it can also be seen that the value of R / C-Ratio of 4.39 which means that the average pepper farming in Bantilang Village is included in the profitable category because the R / C-Ratio value is more than one. The feasibility of farming (R / C- Ratio) is the total revenue divided by the total cost, the results that have been obtained will show the farm is profitable or not economically (Saadudin, 2017).

The income of pepper farmers' households comes from the income of pepper farmers, other farming businesses, outside the farm and the income of household members with an average of Rp. 13,544,548 / month where the income is classified as high. The largest income comes from pepper farming, which is 32.14% of the total family income, while the lowest contribution is income from family members as much as 10.64%.

Welfare indicators based on population, health and nutrition indicators, education, employment, and housing and the environment are in the high class. The level and pattern of consumption, as well as social and others are in the moderate class. The high class obtained the highest percentage of 53.63% so it can be concluded that the average pepper farmer's household in Bantilang Village is in the prosperous category based on the BPS category.

There are 97.62% of pepper farmers' households in Bantilang Village which belong to the prosperous category, and 2.38% fall into the category of not prosperous. The driving factor in the level of welfare of pepper farmers in Bantilang Village is the indicator of population, health and nutrition, education, employment, and housing and environment indicators that are considered worthy to be said to be prosperous, while indicators of levels and consumption patterns, as well as social and others are considered less and categorized as not prosperous according to BPS measurements.

D. Conclusion

This study concludes several things as follows:

1. Pepper production in Bantilang Village is 1,051 Kg / Year and the average productivity is 938.39 Kg / Ha.
2. The income of pepper farmers in Bantilang Village is quite high. The average income of farmers in Bantilang Village, Towuti Subdistrict, East Luwu Regency in one year amounted to Rp 52,247,440 and the average per month was Rp. 4,353,953 with an R / C-Ratio of 3.39.
3. The income of pepper farmers in Bantilang Village is high. The income of pepper farmers' households comes from pepper farming businesses, other farming businesses, outside farming and household members' income, where the average income of pepper farmers' households is Rp. 568,871,042 / Year and the average monthly income is Rp. 13,544,548.
4. A total of 41 pepper farmers in Bantilang Village fall into the prosperous category with a percentage of 97.62%.

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