

Income Analysis Of Coffee Farmers In The Albizia Forest Area Based On Agroforestry

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Abstract.

Coffee is one of the sufficient non-timber forest product commodities potentials. Indonesia is one of the largest coffee-producing countries in the world after Brasi. One of the uses of coffee is as a mixed drink that can be served at various banquets in a relaxed atmosphere. This study aims to determine people's income from coffee production in Kendal District, Ngawi Regency. The research was conducted from January to April 2020 with the research location located in Kendal District, Ngawi Regency, East Java Province. Research population These are all those in the Kendal District area. Technique Sampling in this study was the census method, namely 50 people who grow coffee. The research results show that acceptance obtained by respondents growing coffee in Kendal District Ngawi Regency IDR 763.080,000 per year, while expenses from coffee production of IDR. 61.150,000, - per year, so the income from coffee production of IDR. 701.930.000.

Keywords: *Income, Coffee., community, commodity and production.*

I. INTRODUCTION

Forests have significant and comprehensive enough resources to be managed and used to meet human needs. The area under the sengon stands can produce food ingredients, including beans, rice, and coffee [1]. Sengon forest has enough potential to develop non-timber forest products [2]. The development of forest area management is currently quite diverse, apart from producing wood and coffee gardening education areas [3]. Forest products in Indonesia are estimated to be quite large, having an economic value of around 90%, and in the form of wood products, around 10% of the total monetary value of forest ecosystems. However, it has not been optimally managed and utilized to improve people's welfare [4]. Management of non-timber forest products in business development requires relatively little business capital. It can use simple processing tools compared to the business capital of forest products in wood and more modern processing tools, making it possible for the community to broadly develop non-timber forest product businesses [5]. However, non-timber forest products still need to be considered the principal product even though they have a high economic value compared to wood [6]. The non-timber forest product industry can produce products with high economic value and environmentally friendly products.

This is because non-timber forest products generally do not require sophisticated technology and are labor-intensive in their management [7]. Non-timber forest products that have been used by communities around the forest among them are sandalwood, aloes, sago, rattan, sugar palm, breadfruit, bamboo, natural silk, coffee, eucalyptus, various medicinal plants, and honey [8].. Soil fertility in sengon forests that is more than five years old must maintenance is carried out to overcome the relatively low yields achieved because the cultivation technology is elementary, high-dose fertilization treatment and other maintenance are needed so that it is not far under intensive [9]. Coffee beans have been a necessity for the world's people for a long time and have been widely used and enjoyed by people as a source of their income. In addition, coffee is widely enjoyed by various groups, from young people to the elderly. Indonesia is a coffee-producing country with various types, including robusta coffee, arabica coffee, and luck coffee, a mixture of robusta coffee and arabica coffee that badgers have digested.

Robusta coffee is more widely cultivated in Indonesia because it has superior properties to Arabica coffee, which is more prone to disease [10]. One of Indonesia's best local coffees is coffee from Toraja. Compared to coffee from other regions, the advantage of Toraja coffee is that it has low acid content, sufficient weight, fragrant aroma, and a bright color tends to be dark black or brown. The pungent aroma of Toraja coffee is also a characteristic of this coffee for coffee lovers. The advantages of Toraja coffee are inseparable from planting, collecting coffee beans, and making coffee until it becomes good ground coffee . This is because coffee harvesting increases the community's income around the forest. Coffee harvesting can occur continuously so that the community around the forest obtains the harvest results throughout the year. Based on this background, research was conducted on people's income from coffee harvesting. This study aims to determine how much income the production community has coffee in Kendal District, Ngawi Regency

II. METHODS

2.1 Study area

The research was carried out from January to April 2020 with the research location located in Kendal District, Ngawi Regency, East Java Province.

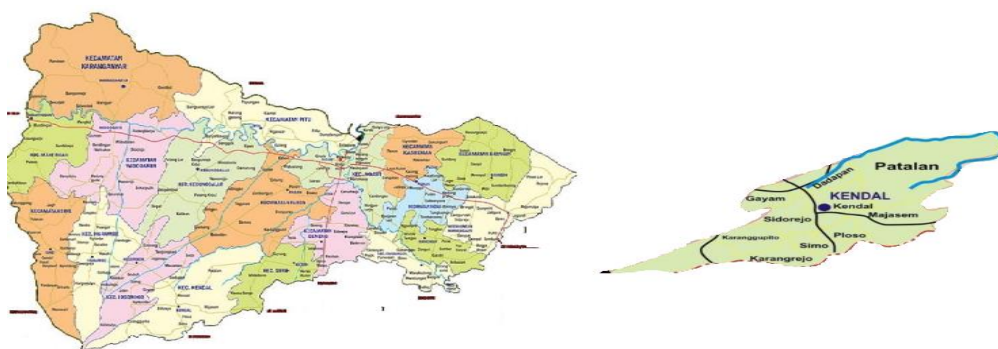


Fig 1. Location map of the study areas

2.2 Research Procedure

This research was conducted using primary and secondary data; preliminary data were obtained through direct observation by observing or candid interviews with respondents on the object under study—a form of identity for respondents, coffee production, and some branches of coffee plants. Secondary data, namely data obtained from related agencies and in the form of documents and literature relevant to this research. The population is the whole object that functions as an informant or object who can provide information related to the subject matter. According to [11] , population means all research objects. The population of this study is all the people in the Kendal District area. Retrieval technique The sample used in this study is a formula-based sampling method Slovin; the number of samples taken was 50 people. Some of the analytical tools used in this research are cost analysis and income. Fixed costs in coffee production are costs that do not vary and are influenced by the amount produced. In contrast, variable costs are costs that constantly change according to the amount of coffee paid.

2.3 Data Analysis

Reception

Acceptance is the result of multiplying the number of products with the selling price product. Acceptance of coffee production in the working area of the District Kendal can be calculated using the following formula [12]

$$TR = P \times Q$$

Where :

TR : Total Revenue (total revenue), (IDR)

P : Price (price), (IDR)

Q : Quantity (amount of goods) (Kg)

b. Cost

$$TC = \sum x_i \cdot P_{X_i}$$

Where :

TC = Total Cost

x_i = Data input type

P_{X_i} = Cost input price

c. Income

Net income or business profit is obtained from the difference between receipts total with total expenses.

Income is mathematically formulated as follows. Production income is calculated by the formula:

$$I = TR - TC$$

Where :

I = Income (income)

TR = Total receipts

TC = Total cost

III. RESULTS AND DISCUSSIONS

3.1 Respondent Education

Education is critical for someone to have. A person's level of education will affect managing their business to increase production and income. The story of education and the size of a person's income also have a relationship. The higher a person's education. Sengon forest management with adequate resources will understand knowledge and experience more quickly (Indah et al, 2022) so that they can apply in life, especially in managing forests. For more details, classification based on the respondent's education level can be seen in Figure. 1.

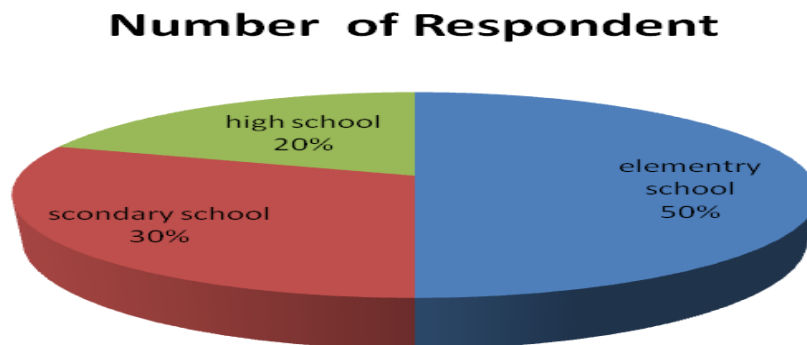


Fig 1 shows that of the 50 respondents in the District Kendal, Ngawi Regency, who graduated from elementary school, as many as 15; at the secondary school level, as many as 25; and at high school, as many as 10 respondents. Level education in the research location still needs to be improved because most producers did not continue school because of financial problems and help parents earn a living. Coffee Harvesting The amount of receipt of business results depends on the number of goods that can be produced and the selling price obtained. Managed land use is quite helpful for farmers in developing coffee production [13]. Based on the research results, acceptance of coffee production in Kendal District, Ngawi Regency seen in Table 1

Table 1. Acceptance of Coffee Production Respondents for a Year.

No	Description	Total (IDR)
1	Number of harvested trees (trees/year)	Amount 220.012
3	of coffee harvested (Kg/year)	Price of 38.154
	coffee (IDR/Kg)	20.000
	Total incom(IDR/year)	763.080.000

Table 1 shows that the income from coffee harvesting is IDR .763,080,000,-/year, with the number of trees planted being 220,012 trees/year. The amount of coffee harvested is 38,154 kg/year for IDR 20,000/kg. Acceptance is obtained by multiplying production by the selling price. The size of the acceptance value obtained by respondents depends on the number of trees and the amount of coffee produced from the

tree. This is in line with research conducted that the results of coffee acceptance are obtained by farmers depending on the price and the amount of weight of coffee produced by the coffee tree. Revenue will be more significant if the resulting production is large and the selling price is high, and vice versa. Acceptance will be small if the show and the selling price are low. The Cost Of Harvesting Coffee Cost is the total cost incurred by someone to fund production activities [14]. Production costs incurred by respondents consist of fixed costs and variable costs. The price of harvesting coffee can be seen in Table 2.

Table 2. The cost of harvesting coffee

No	Description	Total (IDR)
1	Fixed Costs (IDR/year)	48.550.000
2	Cost	12.600.000
Total cost (IDR/year)		61.150.000

Fixed costs are costs that do not change with increased or decreased goods or services produced. Fixed costs are tools used in harvesting, such as buckets and matches. Production costs are costs that depend on the volume of production. Cost Variable costs are costs whose magnitude depends on the importance of output. Variable costs in the form of buckets and hoes. Based on Table 2, it is known that the total costs incurred by the respondents during harvesting are IDR . 61,150,000,-/year with an average cost per respondent IDR . 1.223.000,-/year. Cost is obtained by adding up the costs variable and fixed costs. Income from Coffee Harvesting The process of marketing coffee products is significant to expedite trade routes. The respondent's income from marketing coffee harvesting is obtained from the difference between revenue and total costs derived from the harvest.

Results Community income from coffee harvesting can be seen in Table 3.

Table 3. Community Income from Coffee Harvesting

No	Description	Total(IDR)
1	Incom (IDR/year)	763.080.000
2	Total cost	61.150.000
Total incom (IDR/year)		701.930.000

Table 3 shows that the respondents' income from coffee harvesting is IDR . 701,930,000, -/year with an average income of IDR . 14,038,000,-/year or IDR .1,169,883-/month.

IV. CONCLUSION

Based on the results of the study, it can be concluded that the acceptance obtained by coffee farmer respondents in Kendal District, Ngawi Regency IDR . 763,080,000 per year, while expenses come from coffee production IDR . 61,150,000 per year, so the income from coffee production is IDR . 701,930,000, - per year, with an average income of IDR . 1.223.000,- /respondent/year. Based on the research results conducted in Kendal District, the local government and related agencies will likely provide Ngawi Regency counseling to the public to increase coffee production.

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