ANALYSIS OF ORGANIC VEGETABLE FARMERS INCOME DURING THE COVID 19 PANDEMIC  
(Case Study of Aunupe Village, Wolasi Sub District, South Konawe District)

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ABSTRACT  
This study aims to determine the income of farmers and the feasibility of farming organic vegetables in Aunupe Village, Wolasi Sub District, during the Covid 19 pandemic. The research was conducted in October-November 2020. The variables in this study included: Respondent identity, including (age, education, number of family dependents, farming experience), income indicators (land area, variable costs, fixed costs, production, revenue, and income). The population in this study were all organic vegetable farmers in Aunupe Village, Wolasi Sub District, Konawe Selatan District, 60 families with a sample of 38 households. The sample was determined by simple random sampling (Simple Random Sampling). The results showed that the income of organic vegetable farming in Aunupe Village, Wolasi Sub District during the Covid 19 pandemic in one production cycle (30 days) was IDR680,062 and the R / C ratio of organic vegetable farming was 3.28, so it is feasible to continue.  

Keywords: covid pandemic; income; organic vegetable farming; South Konawe District  

INTRODUCTION  
Indonesia is an agrarian country where most people live from agricultural production, or about 70.00% of the community as farmers. The agricultural sector is one of the sectors that support most of life. Therefore, development in agriculture should not only be focused on increasing production yields but should also be directed at increasing people's incomes, improving farmers' living standards, and increasing farmers' welfare (Pusdatin, 2013).  
Wolasi Sub District, South Konawe District with an area of 15,891,648 Ha and other vegetables covering an area of 1400.00 Ha or 8.8% (BPS Kabupaten Konawe Selatan, 2017). Wolasi Sub District is one of the areas in South Konawe District, which has sufficient potential for agricultural and agro-climatic resources suitable for developing vegetable crops. Six vegetable products produced in Wolasi Sub District are Chilli, Tomato, Long Bean, Mustard/Petsai, Pariah Vegetables, and Kale.  
Vegetable crops from the past until now are still one of the agricultural products with excellent prospects. The production of vegetable farming will undoubtedly be able to be absorbed by the market, but this can be inversely proportional because the emergence of the COVID-19 pandemic impacts the sale of organic vegetables (Nugroho & Yuliawati, 2020). Furthermore, (Nugroho & Yuliawati, 2020; Sarni & Sidayat, 2020) efforts to improve production, quality, and quality of vegetables continue to be enhanced so that the farmers' income during the covid 19 pandemic.  
Organic farming in Aunupe Village arises because of the awareness of the negative impact of modern agriculture. The negative impact that occurs is due to the existence of quality products and low selling prices. From an economic point of view, the initial capital is insufficient from the harvest, and there is dependence on chemical drugs, but the product produced is not good because not all pests can be overcome. This negative impact is a reflection of the green revolution process that occurs in society. So this is what encourages farmers in the village to implement an organic farming system with a pattern of returning to nature, especially during the Covid 19 pandemic where
consumers tend to look for healthy vegetables to increase their immune system against Covid 19 (Darmawan et al., 2020; Ritonga, 2021). The economic prospects of agriculture are pretty good along with the changing consumption patterns of the people during the Covid 19 Pandemic because people prefer healthy food even though at a higher price, especially during the covid 19 pandemic (Trianti et al., 2020). Therefore, organic farming has a good impact on the welfare of farmers because the products produced have high quality and quality. Based on the description above, the purpose of this study is to determine the income of organic vegetable farmers during the covid 19 pandemic (a case study of Aunupe Village, Wolasi Sub District, South Konawe District).

MATERIALS AND METHODS

This research will be conducted in Aunupe Village, Wolasi Sub District, South Konawe District, with the object of study being the income of organic vegetable farmers. The time of this research was carried out from October to November 2020. The population in this study were all organic vegetable farmers in Aunupe Village, Wolasi Sub District, South Konawe District, totaling 60 families. Determination of the sample using a simple random sampling technique (Simple Random Sampling) and the decision of the number of pieces is done using the formula proposed by Slovin (Rians & Abdi, 2012). The variables in this study are the identity of the respondents (age, education, number of family dependents, and farming experience). The characteristics of organic vegetable farming include land area, variable costs, fixed costs, total costs, total product, unit price, revenue, and income.

The analytical technique used in this study is to analyze the primary data collected through a questionnaire that has been made in advance, which contains a list of questions needed in the study. The data obtained are classified, tabulated, and processed according to the analytical tools used is. An analysis of farm income is analyzed by first knowing the level of total income and expenditure in a certain period (Soekartawi, 1995),

\[ I = TR - TC \]  

Where, \( I \) = Farming Income (IDR), \( TR \) = Total Revenue (IDR), \( TC \) = Total Cost (IDR), and financial feasibility analysis is calculated by comparing the total revenue with the total cost (Soekartawi, 1995).

\[ R/C = TR/TC \]  

Where, \( R/C \) = Revenue Cost Ratio, \( TR \) = Total Revenue (IDR), \( TC \) = Total Cost (IDR). If \( R/C > 1 \), then the business is run profitable or feasible to be developed. If \( R/C < 1 \), then the business is experiencing losses or is not feasible to be developed, then if \( R/C = 1 \), the business is at the break-even point (Break-Even Points).

RESULTS AND DISCUSSION

Respondent Identity

The identity of the respondents observed in this study included the farmer’s age, the level of formal education, the number of dependents in the family, and the experience of farming corn.

Table 1. Identity of respondents in Aunupe Village, Wolasi Sub District, South Konawe District in 2020

| Description                                   | Number of Respondents |
|-----------------------------------------------|-----------------------|
|                                               | Amount | Percentage (%) |
| Age (Years)                                   |         |                |
| 10-64 (Productive)                            | 37      | 97             |
| 65-70 (Not Productive)                        | 1       | 3              |
| Education                                     |         |                |
| Graduated from Elementary School/Equivalent   | 18      | 47             |
| Graduated from Middle School/Equivalent       | 12      | 32             |
| High school graduate/equivalent               | 5       | 13             |
| College                                       | 3       | 8              |
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| Family Dependents (Persons) | 1-3 | 4-6 | > 6 |
|-----------------------------|-----|-----|-----|
|                             | 20  | 16  | 2   |

| Farming Experience (Years) | 2-4 | 5-10 | 11-25 |
|----------------------------|-----|------|-------|
|                            | 19  | 17   | 2     |

Source: Data Processing, 2020

One factor that supports the success of making decisions or assessing an object is the physical ability to work and think. In general, those who are physically healthy and young have more excellent physical skills with a creative mindset and are responsive to technology to be more dynamic in managing their farms. On the other hand, older people tend to be more careful in acting and making decisions, especially those concerning technological changes in a farming business. The results showed that the age of the respondent farmers ranged from 25-70 years. Table 1 above indicates that respondents in the study area are dominated by the age of 10-64 years as many as 37 people (96.67%), while the age group of 65-70 years is only one person (3%). This situation shows that respondent farmers in Aunupe Village, Wolasi Sub District, South Konawe District, in general, are in the working-age group. Thus, most respondents have a more remarkable physical ability to work and are more responsive to new recommended innovations, so they have the potential and ability to develop organic vegetable farming they manage to increase production and income. This is by the opinion of Soeharjo & Patong, (1972) that the age level affects the activities of a farmer, both in work and in thinking. A young farmer has a more extraordinary physical ability than an old farmer. In addition, young farmers are more responsive to innovations that are recommended.

Education is one of the means to improve human intelligence and skills, so the quality of human resources is highly dependent on the quality of education. The importance of education is reflected in the 1945 Constitution, which states that education is the right of every citizen, aiming to educate the nation's life. Education programs have a significant impact on the socio-economic progress of a nation. A person's ability to process activity is primarily determined by education, both formal and non-formal. Through education, a person will gain more knowledge or information that can influence how he thinks about an activity he manages. Farmers will more quickly understand new technological innovations, and conversely, the low level of education will have difficulty understanding existing technology. Education is one of the determining factors in agricultural development. This is by explaining to A.T. Mosher, (1984) that one of the conditions needed in agricultural development is education. The education referred to in this study is the formal education that the respondent has attended. Farmers who have a relatively high level of education will cause them to be more dynamic, rational, and courageous in making decisions about managing their business and accepting innovations.

Table 1 shows that the education of the respondents varied. From the data above, it appears that the teaching of the respondents in the research area is dominated by education having graduated from elementary school/equivalent, namely 18 people (47%), followed by junior high school graduates/equivalent as many as 12 people (32%) and graduating from high school/equivalent as many as five people (13%) and the rest as many as three people (8%) have a college education. This situation illustrates that all respondents in the study area have formal education with different levels of education. Based on this situation, it is expected that farmers can reason and more quickly adopt innovations to improve organic vegetable farming management further. According to Soekartawi, (2002), a high level of education is relatively faster in adopting innovations. Vice versa, for those with low education, it isn't easy to adopt innovations quickly. Farmers with higher education can think better than farmers with low education, but according to (Karyani et al., 2021; Suryanti et al., 2020) through mentoring can increase the knowledge, attitudes, and skills of farmers in the proper cultivation of organic vegetables. by utilizing abundantly available raw materials.

The number of family dependents can affect the work production of farmers in carrying out their farming. The more family members, the more time must be devoted to taking care of the family, which impacts the lack of time available for other matters. The number of family dependents in question is the number of family members in one household or other places directly dependent on the family. Family members can be a guarantee in the provision of labor that helps in managing the farm. Family members have a considerable influence on one's farming activities because apart from being a
source of work, family members also often involve family members in making decisions so that the decision is a family decision. The greater the number of dependents in the family, the greater the effort made by a farmer in helping the family to meet their daily needs. The grouping of family dependents can be done based on the classification from the Central Statistics Agency (BPS), namely minor family dependents 1-3 people, medium family dependents 4-6 people, and large family dependents more than six people. Grouping of dependents. Table 1 shows that most of the respondents, namely 20 people (53%), have some family dependents 1-3 people (minor dependents), followed by respondents with 1-6 family dependents (moderate dependents) as many as 16 people (42%) and respondents with some dependents > six people (significant dependents) as many as two people (5%) of all respondents.

Based on the research results, the average number of dependents of the respondent’s family in Aunupe Village, Wolasi Sub District, South Konawe District is about four people (medium family dependents). With such some family dependents, the number of needs that must be met is increasing, so that it will encourage respondent farmers to manage their farms well to improve their farming production. Besides that, family dependents of productive age can assist farmers in carrying out farming activities and considering decisions related to farming management.

Farming experience is also one of the most important factors influencing the ability and accuracy of farmers in managing their farming. Experienced respondents are usually more capable and skilled in overcoming problems that occur in their agriculture. Farming owned by one person is also beneficial for other farmers in need. To find out the experience of a farmer in agriculture can be seen from the length of time a farmer carries out activities on his agricultural land. The longer the experience of a farmer in farming, it can be assumed that the farmer is more mature and stable in dealing with problems in his agriculture. In the end, it will affect the level of production of the managed farming. The grouping of business experience in this study was based on the category of inexperienced if in the field of work less than five years, experienced enough if 5-10 years, and experienced if over ten years (Soeharjo & Patong, 1972). The results showed that the experience of respondents in managing corn farming ranged from 2-25 years.

Table 1 shows that the largest number of respondents with 2-4 years of experience is 19 people (50), followed by respondents who have 5-10 years of experience as many as 17 people (45%), and those who have 11-25 years of farming experience are two people. (5%). Thus, the majority of respondents have had sufficient experience in managing corn farming. With this experience, it is hoped that organic vegetable farmers will be able to manage their farming well and solve all the problems faced during the production process to manage high production yields and income.

Land plays an essential role as a place for organic vegetable farming to be carried out to produce the desired product. Land area is one of the determining factors for whether or not farming runs. The land area referred to in this study is the area used as organic farming land. The land area has a close relationship with other inputs, so the more comprehensive the land used, the greater the information used. Hernanto, (1991) suggests three groups of farmers based on the area they work on, namely the narrow category <0.5 ha, the medium type 0.5-2 ha, and the wide variety> 2 ha. Table 1 shows that the highest level of land use in organic vegetable farming is in the narrow land category, namely 35 people (92%) and the remaining three people (8%) owning a medium land of 0.5 ha. This is due to the limited land available in Aunupe Village.

**Organic Vegetable Farming Income Analysis**

Characteristics of organic vegetable farming from farmers in the study there are several aspects. Several aspects included in the analysis of agriculture in this study are costs (variable and fixed costs), revenue, and income.

| Description | IDR/Planting Season |
|-------------|---------------------|
| Variable Cost |                      |
| Seed        | 25.517              |
| Transportation | 100.000            |
| Labor wages | 30.000              |
| Total Variable Cost | 155.517          |
| Fixed cost  |                     |
| Sickle      | 8.421               |
| Machete     | 6.857               |

Table 2. Average variable costs, fixed costs, and total costs in organic vegetable farming in Aunupe Village, Wolasi Sub District, South Konawe District in 2020
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| Description          | (IDR/Planting Season) |
|----------------------|------------------------|
| Hoe                  | 38.381                 |
| Total Fixed Fee      | 53.659                 |
| Total Cost           | 208.885                |

Source: Data Processing, 2020

Based on Table 2, the highest variable costs for organic vegetable farming are transportation costs, IDR100,000, labor costs are IDR30,000, but not all farmers use labor because of the difference in land area. The lowest cost is the cost of seeds, amounting to IDR25,517. Still, some farmers no longer buy seeds in stores for the next farming because farmers use the last sources, so that the total variable cost of organic vegetable farming is IDR155,517. Based on the study results, it can be seen that the number of variable costs for organic vegetable farming is minimal. This is due to the small number of additional expenses on varying costs. The wages of labor in question are the wages of post-harvest workers, both external workers, and family workers. Table 2 shows that the highest fixed cost in organic vegetable farming is the cost of the sickle, an average of IDR8,421/planting season, and the lowest cost is the cost of a machete, which is on average IDR6,857/planting season. This is also due to its low price and long economic life.

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The income received by organic vegetable farmers in one production depends on the area of land used. The income received by farmers must have been reduced by all costs used during the production process. Based on the results of the analysis, the revenue of organic vegetable farming is obtained as follows:

Table 3. Details of the average cost of organic vegetable farming per planting season (30 days) in Aunupe Village, Wolasi Sub District, South Konawe District in 2020

| Description          | Unit            | Amount     |
|----------------------|-----------------|------------|
| Total Cost           | (IDR/Planting Season) | 208.885   |
| Total Revenue        | (IDR/Planting Season) | 868.947   |
| Total Income         | (IDR/Planting Season) | 680.062   |

Source: Data Processing, 2020

Table 3 shows that the average income of organic vegetable farmers in Aunupe Village, Wolasi Sub District, South Konawe District is IDR868,947, with a total cost of IDR208.885. Thus, the average income received by organic vegetable farmers is IDR680.062 when compared with the results of research (Sarni & Sidayat, 2020; Slamet, 2021), where the revenue of organic vegetable farmers during the covid 19 pandemic ranged from 3-4 million rupiahs and when compared to the UMP of South Konawe District in 2020 of IDR2,552,081, the income vegetable farmers in Aunupe Village is still low.

R/C ratio

The value of revenue over costs (RC ratio) is the ratio between revenue and production costs. Based on the revenues and expenses incurred, the value of revenue to costs (RC) is the ratio of the total expenses obtained by organic vegetable farming in Aunupe Village, Wolasi Sub District, Konawe District. The results of the revenue-to-cost analysis (RC ratio) are presented in Table 4.

Table 4. Results of the analysis of revenue to costs (RC ratio) of organic vegetable farming in Aunupe Village, Wolasi Sub District, South Konawe District in 2020

| Description          | Amount |
|----------------------|--------|
| RC Ratio             | 3.28   |

Source: Data Processing, 2020
Table 4 above shows that to assess whether a farm to be implemented is profitable or feasible, and it is necessary to know by using revenue cost ratio (RC.ratio) analysis. The feasibility of farming is measured by dividing the farm income by the total costs incurred in one business—planting season. Revenue is obtained by multiplying the production obtained with the selling price of the product, while the total cost consists of fixed costs and variable costs. Based on the study results in Table 4, the revenue-to-cost ratio (RC ratio) of 3.28 indicates that organic vegetable farming in Aunupe Village, Wolasi Sub District, South Konawe District is profitable and feasible to develop because each cost incurred will generate 3.28 revenue. The results of this study are in line with research (Slamet, 2021) that based on the value of the RC ratio, organic vegetable farming during the Covid 19 pandemic is feasible to continue.

CONCLUSIONS

Based on the results of research on income analysis of organic vegetable farmers in Aunupe Village, Wolasi Sub District, it can be concluded that the income received by organic vegetable farming in Aunupe Village, Wolasi Sub District in one production cycle (30 days) is IDR680,062 from the value of the revenue-to-cost ratio (R/C ratio) organic vegetable farming is 3.28, and this shows that with an acceptance of costs (R/C ratio) of 3.28, it can be interpreted that for every IDR100,000 costs incurred, organic vegetable farming provides an income of IDR328,000, so it is feasible. To be developed.

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