



## Farmers' Motivation in Farming Horticultural Crops (Case Study: Indigenous Papuan Farmers in Aipiri Village, East Manokwari District)

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### ABSTRACK

This research was conducted in Aipiri Village, East Manokwari District, with the aim of examining the motivations of indigenous farmers (OAP) in horticultural farming in Aipiri Village, East Manokwari District. The research employed survey and case study methods. The sampling method used in this research was simple random sampling. The population of this study consisted of indigenous farmers (OAP) engaged in horticultural farming in Aipiri Village, East Manokwari District.

The results of this study indicate that farmers have a high motivation for existence needs, with 70.6% of farmers motivated to meet their children's educational expenses and 72.5% motivated to fulfill supporting educational needs for their children. For relatedness needs, 60.8% of farmers were motivated to gain new experiences from other farmers, and 70.6% were motivated to provide experiences to other farmers. For growth needs, 62.7% of farmers were motivated to use modern equipment, and 82.4% were motivated to implement the internet.

## INTRODUCTION

Agriculture is the primary livelihood for the majority of the population in Indonesia. Of the 135.3 million people working in Indonesia, 40.64 million are employed in the agricultural sector. The agricultural sector encompasses various subsectors such as horticulture, food crops, plantations, fisheries, livestock, and forestry.

Papua, as a region with agricultural potential, continues to develop agricultural programs to meet the needs of its community. Sadiyah & Irham, as cited in Yolanda Holle (2023), state that the income disparity experienced by the population in Papua can be mitigated by the agricultural sector's role, which contributes to the total Gross Regional Domestic Product (GRDP). Furthermore, the contribution of the agricultural sector to the economy of West Papua Province is 37.96% per year of the total GRDP.

Rural communities are generally those who utilize natural resources in the agricultural sector, where these communities have traditionally engaged in agricultural activities. For example, those living in rural and peripheral areas earn income or rely on businesses operating in the agricultural sector (Wanimbo, 2019).

Aipiri Village in Manokwari Regency is one of the seven villages located in the East Manokwari District, covering an area of approximately 46.54 km<sup>2</sup> (30.06%) of the total area of East Manokwari District (254.84 km<sup>2</sup>). Like other villages, Aipiri Village has a tropical climate with two seasons: the rainy season and the dry season.

Aipiri Village, like other villages, has a climate that falls within the tropical region, characterized by two seasons: the rainy season and the dry season. Although the differences between these seasons are sometimes not clearly noticeable, this area generally experiences a wet tropical climate with highly variable rainfall (Supriyanto et al., 2022).

Motivation is the main driver behind an individual's behavior to engage in an effort, including efforts to utilize land. The motivation present within a person will determine whether they are willing, able, diligent, and creative in managing that effort. The encouragement that can help farmers cultivate a piece of land can be derived from the farmers' own socio-economic factors (Sakinah et al., 2017).

Essentially, motivation consists of the factors within an individual that drive them to achieve or fulfill a specific goal. This work motivation primarily concerns the indigenous Papuan farmers whose horticultural farming serves as a source of livelihood to meet their family's needs. However, it holds special significance because these farmers have a strong desire to engage in farming so they can continue to provide for their families. As a result, horticultural farmers persist in their farming endeavors despite facing challenges such as limitations in the technology they use and diseases that consistently affect their crops.

Horticultural farming is an activity carried out by both adults and youth. This is seen among the indigenous Papuan farmers in Aipiri Village, Manokwari Regency, who have a strong desire to continue cultivating horticultural crops despite facing challenges related to the technology they use and diseases

affecting their plants. These obstacles do not hinder their determination to engage in horticultural farming.

## METHODOLOGY

This research was conducted in Aipiri Village, East Manokwari District, from June to July 2024. The approach taken is a quantitative approach using survey and case study methods. Data collection was carried out using the simple random sampling method.

The population in this study consists of indigenous Papuan farmers engaged in horticultural farming in Aipiri Village, East Manokwari District.

The analysis technique used is simple tabulation analysis descriptively to determine the objective of examining the motivations of indigenous Papuan farmers in horticultural farming in Aipiri Village, East Manokwari District.

## RESULT AND DISCUSSION

### Motivation of Indigenous Papuan Farmers for Needs Existence

#### 1. Meeting Food Needs

Indigenous Papuan farmers (OAP) in Aipiri Village, East Manokwari District, cultivate horticultural crops to meet their families' food needs, ensuring they have nutritious and healthy meals three times a day.

**Table 1. Farmers' Motivation for Food Needs of Farmers in Aipiri Village, East Manokwari District**

Score	Clothing Needs	Housing Needs
1	72,5%	70,6%
2	27,5%	29,4%
Total	100%	100%

*Source: Data Processing 2024*

From the data produced in Table 1 above, it can be seen that the motivation of farmers to meet their family's food needs, including rice, fish, vegetables, and tubers, has a very high score of 72.5% for eating three times a day. Additionally, the motivation of farmers to fulfill the nutritional and healthy food needs of their families, such as eggs, meat, and fruits, has a very high score of 70.5%. In conclusion, the motivation of farmers for food needs is very high, indicating that farmers are motivated to eat three times a day and to meet their nutritional and healthy food requirements. Farmers always prioritize their physical condition to be able to carry out their activities effectively.

#### 2. Meeting Clothing and Housing Needs

Farmers in Aipiri Village focus on horticultural farming as an effort to meet the clothing and housing needs of their families. Various types of crops, such as vegetables and fruits, are grown, taking advantage of the fertile land and supportive climate in the area.

**Table 2. Farmers' Motivation to Meet Clothing and Housing Needs in Aipiri Village, East Manokwari District**

Score	Clothing Needs	Housing Needs
1	53,6%	41,2%
2	45,4%	58,8%
Total	<b>100%</b>	<b>100%</b>

*Sumber: Olah Data 2024*

From the data in Table 2 above, it can be seen that the motivation of farmers to meet clothing needs, in the form of wearable clothing such as shirts, pants, and shoes, has a very high score of 53.6%. Additionally, the motivation of farmers to meet housing needs, in the form of homes and household items such as chairs, cabinets, and tables, has a high score of 58.8%. In conclusion, the motivation of farmers to fulfill clothing needs for wearable items is very high and essential for farmers and their families. However, the need for housing, such as household equipment, is not as critical for farmers and their families as long as the living conditions remain comfortable and suitable for habitation.

### **3. Meeting the Costs of Children's Education.**

Farmers from the Indigenous People of Papua (OAP) in Aipiri Village manage horticultural farming to cover the education costs of their children. By planting various types of vegetables and fruits, the farmers aim to obtain a sufficient harvest to sell at the district market. The income from the sale of these horticultural products becomes the primary source used by farmers to finance their children's school education, covering expenses from purchasing books, uniforms, to school fees.

**Table 3. Farmers' Motivation to Meet Education Costs for Farmers' Children in Aipiri Village, East Manokwari District.**

Score	Children's Education Costs	Supporting Needs for Children's Educatio
1	70,6%	72,5%
2	29,4%	27,7%
Total	<b>100%</b>	<b>100%</b>

*Source: Data Processing 2024*

From the data in Table 3 above, it shows that the motivation of farmers to meet children's education costs, in the form of school fees (SPP), is 70.6%. Additionally, the motivation of farmers to fulfill supporting needs for children's education, such as school uniforms, bags, and writing supplies, has a very high score of 72.5%. The motivation of farmers to meet the costs of children's education and their supporting needs is very high and is prioritized by farmers to ensure that their children can focus on their education.

#### 4. Memenuhi Kebutuhan Keamanan

Farmers from the Indigenous People of Papua (OAP) in Aipiri Village engage in horticultural farming not only to meet food needs but also to support security needs. Through the harvest of horticultural products such as vegetables and fruits, they generate income that is used to strengthen home protection, such as installing fences around their houses and gardens. Farmers also save money in banks or at home for their needs.

**Table 4. Farmers' Motivation to Meet Security Needs in Aipiri Village, East Manokwari District.**

Score	Having Savings in the Bank	Preparation for Health Care Costs
1	33.3%	29,4%
2	66.7%	70,6%
Total	100%	100%

*Sumber; Olah Data 2024*

From the data in Table 4 above, it shows that the motivation of farmers to meet security needs by having savings in the bank, specifically retirement savings for future needs, has a high score of 66.7%. Additionally, the motivation of farmers for preparing health care costs, such as through BPJS (Indonesia's Health Insurance), has a high score of 70.6%. The motivation of farmers to meet security needs is carried out by saving in the bank, while the need for preparing health care costs is not considered an urgent requirement for farmers; instead, it will be utilized at the right time and situation when needed.

#### Motivation of Indigenous Papuan Farmers for Needs *Relatedness*

##### 1. Building Relationships with Others

Farmers from the Indigenous People of Papua (OAP) in Aipiri Village engage in horticultural farming as the main source of livelihood for their families to improve their well-being and build relationships with the broader community. Horticultural crops, such as vegetables and fruits, not only serve as a source of income for farmers but also create opportunities for social interaction with people outside the village.

**Table 5. Farmers' Motivation to Build Relationships with Others**

Score	Sharing Results with Other Farmers	Gaining Experience with Consumers
1	52,9%	43,1%
2	47,1%	56,9%
Total	100%	100%

*Source: Data Processing 2024*

From the data in Table 5 above, it shows that the motivation of farmers to build relationships by sharing results with other farmers, in the form of horticultural production such as vegetables and fruits, has a very high score of 52.9%. Additionally, the motivation of farmers to gain experience with consumers, through responsiveness to feedback and comfort in interaction, has a score of 56.9%. In conclusion, the motivation of farmers to share agricultural results with other farmers is prioritized, while the motivation to gain experience with consumers is not given high priority.

## **2. Familiarity and Sharing Experiences with Other Farmers**

Farmers from the Indigenous People of Papua (OAP) in Aipiri Village cultivate horticultural crops not only for economic benefits but also to create opportunities to strengthen relationships with other farmers both within and outside the village. Farmers often exchange experiences regarding cultivation techniques, plant maintenance, and ways to tackle pests and diseases.

**Table 6. Farmers' Motivation to Be Familiar with Other Farmers**

<b>Score</b>	<b>To Interact Well with Other Farmers</b>	<b>To Participate in Agricultural Extension Activities with Other Farmers</b>
1	39,2%	29,4%
2	60,8%	70,6%
Total	<b>100%</b>	<b>100%</b>

*Source: Data Processing 2024*

From the data in Table 6 above, it shows that the motivation of farmers to interact with other farmers, such as sharing experiences and knowledge, has a high score of 60.8%. Additionally, the motivation of farmers to participate in agricultural extension activities, such as wanting to befriend farmers from outside the village, has a high score of 70.6%. In conclusion, the motivation of farmers to be close to other farmers does not lead them to prioritize interaction with other farmers, and they also do not place a high emphasis on conducting extension activities with other farmers. Farmers have the motivation to build relationships and interact with others, but this motivation is not very strong.

**Table 7. Farmers' Motivation to Use Modern Equipment**

<b>Score</b>	<b>To Use Modern Equipment</b>	<b>To Be Able to Apply the Internet in Farming</b>
1	37,3%	17,6%
2	62,7%	82,4%
Total	<b>100%</b>	<b>100%</b>

*Source: Data Processing 2024*

From the data in Table 7 above, it shows that the motivation of farmers to use modern equipment, such as sprayers, small tractors, and farming tools, has a

high score of 62.7%. Additionally, the motivation of farmers to apply the internet, specifically through the use of smartphones in farming, is significantly higher at 82.4%. In conclusion, the motivation to use modern equipment is not given much attention, and farmers also do not prioritize the ability to apply the internet in their farming practices. While farmers have motivation for technology use and internet application, this motivation is not particularly strong.

### **Motivation of Indigenous Papuan Farmers for Needs Growth**

#### **1. Using Modern Equipment.**

The motivation of farmers in Aipiri Village to cultivate horticultural crops using modern equipment is driven by various interconnected factors. One of the primary motivations is the desire to increase agricultural productivity

**Table 8. Farmers' Motivation to Use Modern Equipment.**

<b>Score</b>	<b>To Use Modern Equipment</b>	<b>To Be Able to Apply the Internet in Farming</b>
1	37,3%	17,6%
2	62,7%	82,4%
Total	100%	100%

*Source: Data Processing 2024*

From the data in Table 8 above, it shows that the motivation of farmers to use modern equipment, such as sprayers, small tractors, and farming tools, has a high score of 62.7%. Additionally, the motivation of farmers to apply the internet, specifically through the use of smartphones in farming, is significantly higher at 82.4%. In conclusion, the motivation to use modern equipment is not given much attention, and farmers also do not prioritize the ability to apply the internet in their farming practices. While farmers have motivation for technology use and internet application, this motivation is not particularly strong.

#### **2. Increasing Knowledge About Agriculture.**

Farmers from the Indigenous People of Papua (OAP) in Aipiri Village not only focus on harvest results but also have a strong motivation to enhance their knowledge about agriculture, particularly in the field of horticulture. With the advancement of technology and the challenges of modern agriculture, these farmers realize that traditional knowledge passed down through generations is not sufficient to face climate change and increasingly resistant pests. Therefore, farmers want to participate in agricultural extension programs that utilize farming tools

**Table 9. Farmers' Motivation to Increase Knowledge About Agriculture."**

Score	To Participate in Extension Programs on Agricultural Tools.	To Seek Information About Agriculture from Experts."
1	33,3%	33,3%
2	66,7%	66,7%
Total	100%	100%

Source: Data Processing 2024

From the data in Table 9 above, it shows that the motivation of farmers to participate in training on agricultural tools, which includes knowledge about using small tractors, sprayers, and other farming equipment, has a high score of 66.7%. Additionally, the motivation of farmers to seek information about horticultural crops from experts, such as agricultural extension workers and agricultural offices, also has a high score of 66.7%. In conclusion, the motivation of farmers to enhance their knowledge by attending training on agricultural tools is not strongly emphasized, and farmers do not place much importance on seeking information from experts. While farmers have motivation to participate in such training and seek information, this motivation is not particularly strong.

### 3. To Own or Develop Agricultural Enterprises

Farmers from the Indigenous People of Papua (OAP) in Aipiri Village cultivate horticultural crops as a step to own and develop sustainable agricultural enterprises. With favorable natural conditions and fertile land, they plant various types of vegetables and fruits that have high demand in the Wosi market, the district market. Horticulture is chosen not only because it provides quick yields but also because it offers more stable profits compared to other commodities. The farmers realize that horticultural crops, such as vegetables and fruits, have significant economic potential due to their increasing demand in local and regional markets.

**Table 10. Farmers' Motivation to Own or Develop Agricultural Enterprises.**

Score	To Open a New Business from Agricultural Products	To Develop Existing Businesses.
1	39,2%	25,5%
2	60,8%	74,5%
Total	100%	100%

Sumber: Olah Data 2024

From the data in Table 10 above, it shows that the motivation of farmers to open new businesses from horticultural agricultural products, such as opening kiosks and restaurants, has a high score of 60.8%. Additionally, the motivation of farmers to develop existing businesses, such as betel nut and sirih (betel leaves),

has a higher score of 74.5%. In conclusion, the motivation of farmers to open new businesses from agricultural products is not strongly considered, and farmers also do not place much emphasis on developing existing businesses. While farmers have motivation to open new ventures from agricultural products and to develop existing enterprises, this motivation is not particularly strong.

#### 4. Motivation for Health

Farmers from the Indigenous People of Papua (OAP) in Aipiri Village cultivate horticultural crops with the primary motivation of creating a healthier life for both the farmers' families and the surrounding community. These farmers understand that fresh vegetables and fruits produced from horticultural gardens are rich in essential nutrients that can support a healthy lifestyle. By growing their own crops, such as tomatoes, chilies, and various types of fruits and vegetables, they not only reduce their dependence on external food products but also ensure the quality and cleanliness of the food they consume.

**Table 12. Farmers' Motivation for Health**

Score	To Consume Healthy Food	To Be Able to Preserve the Environment
1	39,2%	45,1%
2	60,8%	54,9%
Total	100%	100%

*Source: Data Processing 2024*

From the data in Table 12 above, it shows that the motivation of farmers to consume healthy food, in the form of organic vegetables and fruits, has a high score of 60.8%. Additionally, the motivation of farmers to preserve the environment, through cooperation in cleaning up trash on the streets within the village and around residents' homes, has a high score of 54.9%. In conclusion, the motivation of farmers to consume healthy food is not strongly emphasized, and farmers do not place much importance on preserving the village environment. While farmers have motivation to consume healthy food and to maintain the village, this motivation is not particularly strong.

## CONCLUSION

The highest motivation of farmers for Existence needs is to meet the costs of their children's education, which is 70.6%, and the motivation of farmers to fulfill supporting educational needs for their children is 72.5%. The high motivation of farmers for Relatedness needs includes the motivation to gain new experiences from other farmers, which is 60.8%, and the motivation to provide experiences to other farmers, which is 70.6%. The high motivation of farmers for Growth needs is reflected in their motivation to use modern equipment, which is 62.7%, and the motivation to be able to implement the internet, which is 82.4%.

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