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ANALYSIS OF HOUSEHOLD INCOME STRUCTURE, EXPENDITURE, AND WELFARE LEVEL OF CORN FARMERS IN LAREH SAGO HALABAN SUB-DISTRICT, LIMA PULUH KOTA REGENCY

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ABSTRACT

This study aims to analyze the structure of income, household expenses and the level of welfare of corn farmers in Lareh Sago Halaban District, Fifty City District. The method used is a survey method with a total sample of 60 respondents. Data analysis is descriptive quantitative. The results showed that the average income of large farmers (land area > 1 ha) was Rp. 79,271,571/year, the largest income came from corn farming income, namely 47%. While the average income of medium farmers (land area 0.51-1 Ha) is Rp. 57,605,290,-/year, the biggest contributor to household income is non-corn and non-agricultural income with a respective percentage of 38%, and the average income of smallholder households (land area 0.1-0.5 Ha) is Rp. 50,376,508, -/year, the largest percentage comes from non-agricultural income, namely as much as 66%. The expenditure structure of corn farmer households consists of food expenditures, non-food expenditures and production costs expenditures. The average household expenditure of large, medium and small farmers respectively is Rp. 73,377,904, -/year, Rp. 53,189,260,-/year and Rp. 40,906,654,/year. Overall, the biggest expenditure for farmers is for food needs and the smallest is for production costs. The level of farmer welfare is measured by the income share of the agricultural sector by 72% for farmers with large land areas and 62% for farmers with medium land areas and the rest is income from the non-agricultural sector. Meanwhile, for smallholder farmers, 34% of their income is from the agricultural sector and 66% is income from the non-agricultural sector. The share of expenditure on food for farmer households for all farmer categories is <60%, meaning that corn farming households are included in the food security category. The average NTPRP> 1, it can be concluded that the welfare level of farmers is included in the prosperous group.

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1. INTRODUCTION

The agricultural sector is one of the supporting sectors for the country's economy, where the majority of the Indonesian population relies on this sector for their livelihoods, especially rural communities. Agriculture is expected to be a backbone of the national economy and help alleviate poverty. The contribution of the agricultural sector to Indonesia's Gross Domestic Product (GDP) in 2021 was 13.28%, ranking second after the manufacturing industry. This indicates that the agricultural sector plays a significant role in Indonesia's economy (Central Statistics Agency, 2022).

The main actors in agricultural activities are rural communities, who are often associated with poverty. According to the Central Statistics Agency (2022), in September 2021, 47.39% of poor households in Indonesia were farming families whose main source of income relied on the agricultural sector. Agricultural development through various policies is one of the steps that can be taken to address the issue of poverty among rural farmers. Agricultural development is expected to improve the living standards and welfare of farmers.

Food crops are one of the key agricultural commodities in Indonesia. Corn is one of Indonesia's flagship food crops that plays a role in the development of the agricultural sector and is the second staple food after rice. Corn is also a primary ingredient in animal feed production and a raw material for the food industry. Corn holds a significant position in Indonesia's economy as a tradable commodity with high demand. West Sumatra is a province with a relatively high corn production in Indonesia, with a productivity

rate of 70.40 tons per hectare in 2021. The harvested area of corn in West Sumatra in 2021 was 134,671.20 hectares, with a total production of 948,063.16 tons (West Sumatra Provincial Central Statistics Agency, 2022).

Lima Puluh Kota Regency is one of the main corn-producing regencies in West Sumatra Province. Corn is the flagship commodity of the agricultural sector in Lima Puluh Kota Regency, particularly to support the rapidly growing poultry farming sector in the region. The corn cultivation areas in Lima Puluh Kota Regency are spread across 13 districts, with the highest harvested area and production in Lareh Sago Halaban Sub-District.

The increasing production costs, such as high prices of seeds and fertilizers, pose a challenging obstacle for corn farmers. The high production costs result in low net income for farmers, which ultimately affects the welfare of corn farmers. Additionally, the low production scale due to limited land ownership is another issue faced by farmers. Based on data from the Regional Potential Index (IPW) at the District Agricultural Extension Center (BPP) of Lareh Sago Halaban Sub-District, it is known that the average land ownership for corn farming by farmers is relatively small, ranging from 0.25 to 3 hectares. The broader the land ownership, the greater the contribution of the agricultural sector's income to the total household income of farmers [1]. Their research shows that one factor that causes farmers to be less prosperous, even in production centers, is the limited land ownership, particularly less than 0.5 hectares.

The economic growth and welfare of farmers depend on their income levels and profits derived from the agricultural sector. Farmers' income is one of the indicators used to assess their level of welfare. Research conducted states that the contribution of corn farming income to household income in Bongka Makmur Village is 69.10%, while the remainder comes from the non-agricultural sector [2]. This indicates that corn farming makes a significant contribution to farmers' household income.

Household expenditures are also an indicator that can measure welfare. Household expenditures can be used as a measure of welfare, where higher expenditures on non-food items indicate greater household prosperity [3]. The shift in consumption patterns from food to non-food items occurs because the demand elasticity for food is lower compared to non-food items.

The fulfillment of household needs and the improvement of family welfare are attractive incentives for farmers to continue cultivating corn and expanding corn farming. Based on the issues described, the objectives of this study are: 1) to analyze the income structure of corn farming households in Lareh Sago Halaban Sub-District, Lima Puluh Kota Regency, 2) to analyze the expenditure structure of corn farming households in Lareh Sago Halaban Sub-District, Lima Puluh Kota Regency, and 3) to analyze the welfare level of corn farmers in Lareh Sago Halaban Sub-District, Lima Puluh Kota Regency.

2. METHOD

This research was conducted in Lareh Sago Halaban Sub-District, Lima Puluh Kota Regency, West Sumatra Province. The research location was deliberately selected (purposive sampling) based on the following considerations: (1) Lima Puluh Kota Regency is a corn development area as stated in the Lima Puluh Kota Regency Medium-Term Development Plan for 2021-2026, which aims to open 20,000 hectares of idle land for increasing corn and horticulture production; (2) Lareh Sago Halaban Sub-District is a center of corn production with the highest production in Lima Puluh Kota Regency, and (3) Lareh Sago Halaban Sub-District has the highest number of poor families in 2021.

This study employed a quantitative descriptive research design. The method used was a survey method. A survey method is an examination conducted to obtain facts about existing phenomena and gather factual information about a randomly selected sample from the population that can represent the overall research object, such as social, economic, or political institutions [4].

The data used in this study were cross-sectional data. The data sources consisted of secondary data and primary data. Secondary data were obtained from relevant institutions to provide a detailed overview and information related to the research. Meanwhile, primary data were obtained from structured interviews with the research respondents.

The population of this study consisted of corn farmers in Lareh Sago Halaban Sub-District, Lima Puluh Kota Regency, totaling 1,563 farmers, classified as follows:

Table 1. Number of corn farmers based on land size in Lareh Sago Halaban Sub-District.

No	Farmer Category	Number of Farmers
1	Big Farmer (Land >1 Ha)	127
2	Middle Farmer (Land 0,51 – 1 Ha)	478
3	Small Farmers (Land 0,1 – 0,5 Ha)	958

amount	**1.563**

Source: Lareh Sago Halaban Sub-District Agricultural Extension Center (2022).

The sampling technique used in this research was purposive sampling with the criteria that the farmers must be categorized as corn owners or cultivators who have been engaged in corn farming for at least 1 year. The research sample consisted of 60 corn farmers. The sample was divided into groups based on the size of their corn farming land, with 20 samples of farmers with land size > 1 hectare, 20 samples with land size ranging from 0.51 to 1 hectare, and 20 samples with land size ranging from 0.1 to 0.5 hectares.

The data analysis method used in this study was a quantitative descriptive analysis approach. The data analysis conducted in this study included:

1. Analysis of Household Income Structure of Farmers

The income structure analyzed includes income from corn farming, non-corn agricultural income, and non-agricultural income. The analyzed income is the net income, which can be formulated as follows:

PRTP = PUJ + PPNJ + PNP

Explanation:
PRTP = Household Income of Farmers (Rp/year)
PUJ = Income from Corn Farming (Rp/year)
PPNJ = Income from Non-Corn Agriculture (Rp/year)
PNP = Non-Agricultural Income (Rp/year)

The analysis of the farmers' income structure is conducted as follows:

a. Income from Corn Farming

Income from corn farming refers to the total income obtained by farmers from cultivating corn during one farming season. The calculation of income from corn farming is as follows:

Calculation of Production Costs

Production costs refer to the expenses required to add capital goods for corn farming. These costs include seed costs, fertilizer costs, pesticide costs, herbicide costs, labor costs, and equipment costs (both rental and depreciation costs). The production cost is calculated using the formula:

TC = (Q1.PQ1) + (Q2.PQ2) + (Q3.PQ3) + (Q4.PQ4) + (Q5.PQ5) + (Q6.PQ6) + SA + D

Explanation:
TC = Total Cost (Rp/MT)
Q1 = Quantity of Seed Used (Kg/MT)
Q2 = Quantity of Fertilizer Used (Kg/MT)
Q3 = Quantity of Pesticide Used (Liter/MT)
Q4 = Quantity of Herbicide Used (Liter/MT)
Q5 = Quantity of Labor Used (HOK/MT)
PQ1 = Seed Price (Rp/Kg)
PQ2 = Fertilizer Price (Rp/Kg)
PQ3 = Pesticide Price (Rp/Liter)
PQ4 = Herbicide Price (Rp/Liter)
PQ5 = Labor Wage (Rp/HOK)
SA = Agricultural Machinery Rental Cost (Rp/MT)
D = Equipment Depreciation Cost (Rp/MT)

The equipment depreciation cost can be calculated using the formula:

D = (NB - NS) / N

Explanation:
D = Equipment Depreciation Cost (Rp/Year)
NB = Purchase Value (Rp)
NS = Residual Value (which is 20% of the Purchase Price) (Rp/Year)
N = Economic Life (Years)

The determination of depreciation cost per planting season is calculated by dividing the total annual depreciation by the number of planting seasons in a year.

1) Total Revenue

Total revenue refers to the income obtained from corn farming during one farming season and can be calculated using the formula:

TR = Q x P

Explanation:

TR = Total Revenue (Rp)
Q = Quantity of Production (Kg)
P = Price (Rp)

2) Net Income

Net income received by farmers can be determined by calculating the difference between revenue and total costs. It can be calculated using the formula:

Net Income = Total Revenue - Total Costs

b. Non-Corn Agricultural Income

Non-corn agricultural income refers to the income received by farmers from agricultural activities other than corn farming, such as rice cultivation, horticulture, plantation crops, income as farm labor, land rental, and others. It can be calculated using the formula:

Net Income = Total Revenue - Total Costs

To determine whether the farming activity is profitable or not, an R/C Ratio analysis needs to be conducted. Return Cost (R/C) analysis is the comparison (ratio) between revenue and costs. The R/C ratio value is obtained using the formula [5]:

R/C = Total Revenue / Total Costs

The criteria for R/C ratio are as follows:

If R/C > 1, then the farming activity is profitable.
If R/C < 1, then the farming activity is experiencing losses.
If R/C = 1, then the farming activity is at the break-even point.

c. Non-Agricultural Income

Non-agricultural income refers to the income obtained by farmers from other occupations or businesses outside of agricultural activities, such as providing services, trading, household industries, employment, and others, summed up over one year.

2. Analysis of Household Expenditure Structure of Farmers

Household expenditure refers to the total costs incurred by farmer households to meet their living needs, including food and non-food expenditures, expressed in rupiah per year.

Household Expenditure is calculated using the formula:

CT = CP + CNP + CUT
CP = CP1 + CP2 + CP3 + CP4 + CP5
CNP = CNP1 + CNP2 + CNP3 + CNP4 + CNP5 + CNP6 + CNP7
CUT = CUTJ + CUNJ

Explanation:

CT = Total Household Expenditure of Farmers (Rp/Year)
CP = Expenditure for Food (Rp/Year)
CNP = Expenditure for Non-Food (Rp/Year)
CP1 = Expenditure for Rice (Rp/Year)
CP2 = Expenditure for meat, vegetables & fruits (Rp/Year)
CP3 = Expenditure for beverages and prepared food (Rp/Year)
CP4 = Expenditure for cooking oil and spices (Rp/Year)
CP5 = Expenditure for cigarettes and other consumption (Rp/Year)
CNP1 = Housing and facilities expenses (repairs, electricity, gas, and water) (Rp/Year)
CNP2 = Education expenses (Rp/Year)

CNP3 = Healthcare expenses (Rp/Year)
CNP4 = Transportation expenses (Rp/Year)
CNP5 = Communication expenses (Rp/Year)
CNP6 = Clothing expenses (Rp/Year)
CNP7 = Tax, insurance, and social funds
CUJT = Corn Farming Costs (Rp/Year)
CUTNJ = Non-Corn Farming Costs (Rp/Year)

3. Analysis of Farmers' Well-being Level

a. Development of Income Structure (PSP)

After knowing the income structure of farmers, the next step is to analyze the Development of Income Structure (PSP) to measure the well-being level of farmers. The main source of family farmers' income derived from the agricultural sector and non-agricultural sector that affects the family farmers' income is referred to as the income structure. The income structure of farmer households from the agricultural sector can be determined using the following formula (Nurmanaf, 2007 in [1]:

PSP = TPSP/TP x 100%

Explanation:
PSP = Share of agricultural sector income (%)
TPSP = Total income from the agricultural sector (Rp/Year)
TP = Total income of farmer households (Rp/Year)

b. Expenditure Share for Food (ESF)

The development of expenditure for food is one indicator that can be used to assess the level of welfare of farmers. A large share of expenditure for food indicates that a significant portion of farmers' household income is allocated to meeting basic needs. Conversely, if non-food expenditure is larger, it indicates a shift in the position of farmers from subsistence to commercial and a higher level of farmer welfare. This is because, fundamentally, humans will always strive to fulfill their primary needs first. Once the primary needs are met, they will shift their focus to fulfilling secondary needs if their income is sufficient. The expenditure share for food among farmers can be calculated using the following formula [1]:

PPP = TCP/CT x 100%

Explanation:
PPP = Share of expenditure on food (%)
TCP = Total expenditure on food consumption (Rp/Year)
CT = Total expenditure of farmer households (Rp/Year)

The calculation result of Share of Expenditure on Food (PPP) can be presented according to the following criteria [6]:

1) If PPP < 60% of total expenditure, it falls into the category of Low Food Expenditure, meaning the family is food secure.
2) If PPP > 60% of total expenditure, it falls into the category of High Food Expenditure, meaning the family is vulnerable to food insecurity.

c. Household Farmer Income Exchange Rate (NTPRP)

The Household Farmer Income Exchange Rate (NTPRP) is an indicator used to compare the relevance of farmers' welfare. The formula used to calculate NTPRP is as follows [7] :

NTPRP = Y/E
Y = Yp + Ynp
E = Ep + Enp

Explanation:
NTPRP = Net Income per Unit of Expenditure of Farmer Households
Y = Income of Farmer Households (Rp)
Yp = Total income obtained by farmers from agricultural activities (Rp)
Ynp = Total income from non-agricultural sources (Rp)
E = Total expenditure of farmer households (Rp)
Ep = Total expenditure on agricultural activities (Rp)
Enp = Total expenditure outside of agricultural activities (Rp)

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The determination of farmers' welfare level using the NTPRP indicator is based on the following criteria:

1) If the obtained NTPRP > 1, it can be concluded that the farmers' welfare level falls into the prosperous category.
2) If the obtained NTPRP < 1, it can be concluded that the farmers' welfare level falls into the non-prosperous category.

4. RESULT AND DISCUSSION

a. Household Income Structure of Corn Farmers

1) Corn Farming Income

Income structure is the composition of income sources that indicate where the household income comes from for all members of the household during a specific period of time. In addition to the head of the household's earnings, the earnings of other family members such as the spouse and children are also sources of family income [8].

The following is the income structure of corn farming households in Lareh Sago Halaban District.

Table 2. Average Income Structure of Corn Farming Households in Lareh Sago Halaban District.

No	Source of Income	Big Farmer		Middle Farmer		Small Farmers	
		Value (Rp/Year)	Percentage (%)	Value (Rp/Year)	Percentage (%)	Value (Rp/Year)	Percentage (%)
1	Corn Farming	37,316,790	47	13,895,710	24	4,093,938	8
2	Non Corn Agriculture	18,914,781	24	21,879,580	38	12,952,570	26
3	Non Corn Agriculture	23,040,000	29	21,830,000	38	33,330,000	66
Amount		79,271,571	100	57,605,290	100	50,376,508	100

In Table 2 above, the income of corn farming households with large land area amounts to Rp. 79,271,571. It can be observed that in the research area, the main source of income for farmers with large land area is corn farming income, accounting for 47%. Furthermore, the income from non-corn farming contributes 24% to the income of farmers with large land area, while non-agricultural income accounts for 29%. This means that farmers with large land area place high hopes on their corn farming as the main source of household income for the respondents.

Table 2 shows that the land ownership size of farmers affects the income structure of their households. The larger the land area owned, the greater the contribution of the agricultural sector to the family income. The research conducted indicates that the land size owned by farmers has an impact on their well-being [9]. The larger the land ownership, the greater the contribution of the agricultural sector's income to the total household income of farmers.

2) Expenditure Structure of Corn Farming Households

The overall average total expenditure of corn farming households, including both food and non-food expenses, as well as farming production costs in Lareh Sago Halaban District, can be seen in the following table.

Table 3. Total Average Expenditure of Corn Farming Households in Lareh Sago Halaban District.

No	Expenditure Type	Big Farmer		Middle Farmer		Small Farmers	
		Value (Rp/Year)	Percentage (%)	Value (Rp/Year)	Percentage (%)	Value (Rp/Year)	Percentage (%)
1	Food Production	25,098,900	34	21,169,200	40	19,341,050	47
2	Non-Food Expenditure	25,074,950	34	17,407,600	33	12,858,950	32
3	Production Cost Expenditures	24,204,054	32	14,612,460	27	8,706,654	21
Amount		74,377,904	100	53,189,260	100	40,906,654	100

In Table 3, it can be seen that the largest expenditure of corn farmers in Lareh Sago Halaban District is on food expenses. Among the three categories of farmers, those with small land area have the highest food expenditure. Respondent households with small corn plantations have relatively low incomes, so most of their income is used to meet their basic needs, particularly food. Basic food needs, such as rice and side dishes, are prioritized. On the other hand, farmers with large corn plantations, due to their higher income, are not only able to purchase essential household consumption items but also afford a greater quantity of non-food necessities. For households with higher income and fewer members, they have more flexibility in budgeting their family expenses and may even have the ability to save. However, for households with lower income and relatively larger family sizes, they face limitations in budgeting their household expenses. Their income can only cover basic household needs.

According to Ghanshyam Pandey (2016), there is a significant variation in the income and expenditure levels between large and small-scale farmers, with large-scale farmers spending more on domestic consumption compared to small-scale farmers. To reduce the gap between income and consumption levels, income must be increased by creating non-agricultural job opportunities. To alleviate poverty and enhance the income of small-scale farmers, the government should provide inputs such as better seed quality, subsidized fertilizer prices, and ensure price stability.

b. Welfare Level of Corn Farmers

Welfare level is defined as a family's ability to fulfill all the necessary requirements for a decent, healthy, and productive life [10]. According to the Central Statistics Agency (2014), welfare is a condition where all the physical and spiritual needs of a household are met according to the standard of living.

One of the important indicators to assess the level of farmers' welfare is through the development of Income Structure (PSP), Development of Expenditure for Food (PPP), and Household Income Exchange Rate (NTPRP).

1) Development of Income Structure (PSP)

The income of corn farming households in Lareh Sago Halaban District comes from agricultural and non-agricultural sources. Agricultural income includes income from corn farming, plantations, and horticulture. Non-agricultural income, on the other hand, comes from sources other than farming. The income structure of farming households can be seen in the following table.

Table 4. Development of Income Structure (PSP) of Corn Farming Households in Lareh Sago Halaban District.

Description	Value (Rp/Year)		
	Large Farmers	Medium Farmers	Small Farmers
Total income from the agricultural sector (Rp/year)	56,231,571	35,775,290	17,046,508
Total farmer household income (Rp/yr)	81,145,571	57,605,290	50,376,508
Agriculture sector revenue share (%)	72	62	34

Table 4 shows that the share of agricultural sector income is 72% for farmers with large land sizes, meaning that 72% of the total income comes from the agricultural sector, while the remaining 28% is sourced from the non-agricultural sector. For farmers with medium-sized land, the share of agricultural sector income is 62%, indicating that 62% of the total income comes from the agricultural sector, and 38% is derived from the non-agricultural sector. Meanwhile, for farmers with small land sizes, the share of agricultural sector income is 34%, meaning that 34% of the income comes from the agricultural sector, and 66% is from the non-agricultural sector. This implies that large and medium-sized corn farmers still rely on agricultural sector income, both from corn farming and non-corn agricultural activities. However, small-scale farmers have not made the agricultural sector their primary source of income, as the non-agricultural sector remains the largest contributor to their income.

Based on these results, it is evident that the share of agricultural sector income is closely related to the size of the cultivated land by farmers. The larger the land size, the higher the share of agricultural sector income. this phenomenon can be explained by the fact that with relatively small land holdings, the production value of farming is also small and does not significantly contribute to household income [11]. Therefore, small-scale farmers with limited land will strive to engage in other commodity farming or even non-agricultural activities to increase their income.

2) Share of Expenditure on Food (PPP)

One of the indicators of farmers' well-being to assess the concentration of income allocation is by examining the expenditure structure of farming households, specifically the share of expenditure on food. Household expenditures can serve as a measure of well-being, where higher expenditures on non-food items indicate a higher level of well-being. The shift in consumption patterns from food to non-food items occurs because the demand elasticity for food is lower compared to non-food items [3].

The expenditure structure for food can be seen in the following table.

Table 5. Share of Expenditure on Food (PPP) of Corn Farming Households in Lareh Sago Halaban District.

Description	Farmer Category		
	Large Farmers	Medium Farmers	Small Farmers
Total spending on food (Rp/year)	25,098,900	21,169,200	19,341,050
Farm household total expenditure (Rp/year)	79,271,571	57,605,290	50,376,508
Share of expenditure on food (%)	32	37	38

Farmers' well-being can be assessed based on the household expenditure structure. If the share of expenditure on food is smaller compared to non-food items in the household, it indicates a higher level of well-being for farmer families. Conversely, if the share of expenditure on food is larger compared to non-food items, it indicates a lower level of well-being for the family. Farmers' well-being can be determined by their ability to meet their clothing, food, and shelter needs. The share of expenditure on food is used as a measure of food security because food security has a negative relationship with expenditure share. The larger the household expenditure share, the lower the food security of that household. Based on the research results, it is known that the development of expenditure on food for all categories of corn farmers, including large-scale, medium-scale, and small-scale farmers, is <60%. This means that farmer households fall into the low expenditure on food category or food-secure households.

3) Household Income Exchange Rate for Farmers (NTPRP)

Revealed that the Household Income Exchange Rate for Farmers (NTPRP) is an indicator used to compare the relevance to farmers' well-being [7]. NTPRP is an analysis to measure the level of farmers' well-being. The larger the NTPRP value, the higher the level of farmers' well-being. Based on land categories, whether it's small-scale, medium-scale, or large-scale farming households, the average NTPRP value is >1, indicating that corn farming households in Lareh Sago Halaban District are classified as prosperous. The NTPRP mentioned above represents the income exchange rate against the total expenditure of farmer households. In addition to total household expenditure, the sought-after NTPRP value is the NTPRP value against production costs, food consumption, non-food consumption, and total consumption.

Table 6. Household Income Exchange Rate for Corn Farmers (NTPRP) in Lareh Sago Halaban District.

No	Description	Farmer Category		
		Large Farmers	Medium Farmers	Small Farmers
A	Household Income	79,271,571	57,605,290	50,376,508
	1. Corn farming income	37,316,790	13,895,710	4,093,938
	2. Non-corn agricultural income	18,914,781	21,879,580	12,952,570
	3. Non-farm income	23,040,000	21,830,000	33,330,000
B	Production cost	24,204,054	14,612,460	8,706,654
C	Consumption	50,173,850	38,576,800	32,200,000
	1. Food	25,098,900	21,169,200	19,341,050
	2. Non Food	25,074,950	17,407,600	12,858,950
D	Total Expenses	74,377,904	53,189,260	40,906,654
E	Household Income Exchange Rate (NTPRP)			
	1. Against production costs (A/B)	3.3	3.9	5.8
	2. Against total consumption (A/C)	1.6	1.5	1.6
	3. Against food consumption (A/C.1)	3.2	2.7	2.6
	4. Against non-food consumption (A/C.2)	3.2	3.3	3.9

5. Against total expenses (A/D)	1.1	1.1	1.2

The NTPRP values for each land category in relation to total consumption are smaller (NTPRP = 1.5 - 1.6) compared to the NTPRP values in relation to total production costs (NTPRP = 3.3 - 5.8). This indicates that in order to meet the well-being level of their households, farmers in each land stratum allocate a relatively larger portion of their income to meet consumption needs rather than production needs. However, the NTPRP values for food and non-food expenditures are relatively balanced, although the allocation for food expenditures remains larger. Nonetheless, households in each land category strive to balance the size of both consumption components relative to the income they earn.

5. CONCLUSION

The income structure of corn farming households in Lareh Sago Halaban District comes from three sources: income from corn farming, income from non-corn farming, and non-agricultural income. The average income of large-scale farmers (land area >1 Ha) is Rp. 79,271,571 per year, with the largest income coming from corn farming at 47%, followed by non-corn farming income at 24%, and non-agricultural income at 29%. The average income of medium-scale farmers (land area 0.51-1 Ha) is Rp. 57,605,290 per year, with the highest percentage coming from non-corn farming and non-agricultural income, each at 38%, while the remaining 24% comes from non-agricultural income. The average income of small-scale farming households (land area 0.1-0.5 Ha) is Rp. 50,376,508 per year, with the largest percentage coming from non-agricultural income at 66%, the smallest income coming from corn farming at 8%, and the remaining 26% coming from non-corn farming. Small-scale farmers do not consider farming as the main source of household income. The expenditure structure of corn farming households in Lareh Sago Halaban District consists of food expenditure, non-food expenditure, and production costs. The average expenditure of large-scale farming households is Rp. 73,377,904 per year, with 34% for food expenditure, 34% for non-food expenditure, and 32% for production costs. The total expenditure of medium-scale farmers is Rp. 53,189,260 per year, with 40% for food, 33% for non-food, and 27% for farming costs. The average expenditure of small-scale farmers is Rp. 40,906,654 per year, consisting of 47% for food expenditure, 32% for non-food expenditure, and 21% for production costs. Overall, the largest expenditure for farmers is for food needs, while the smallest is for production costs. Income Structure Development (PSP), The agricultural sector contributes 72% to the income of large-scale farmer households, while the remaining 28% comes from the non-agricultural sector. Medium-scale farmer households have a 62% share of income from the agricultural sector and 48% from the non-agricultural sector. Large-scale and medium-scale farmers rely on the agricultural sector as their main source of family income. On the other hand, for small-scale farmers, the share of income from the agricultural sector is 34%, while the remaining 66% comes from the non-agricultural sector. The non-agricultural sector serves as the source of income for small-scale farmer households. Expenditure Share for Food (PPP), The expenditure share for food for large-scale, medium-scale, and small-scale farmers is 32%, 37%, and 38% respectively. Based on the research findings, it can be concluded that corn farming households, across all categories of farmers based on corn land size, are considered food secure families, as indicated by the food expenditure share being less than 60%. Household Farmer Income Exchange Rate (NTPRP), Based on land categories, whether it is small, medium, or large-scale households, if the average value of NTPRP is >1, it can be concluded that the farmers' welfare level falls into the prosperous category.

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