

PROFIT SHARING SYSTEM AND COMPARATIVE INCOME OF RUBBER FARMING BUSINESS IN NURUSSALAM DISTRICT, EAST ACEH REGENCY

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Abstract

The form of cooperation in farming is a profit-sharing system, namely the cooperation between the owner of the rubber plantation as the owner of the cultivator and the cultivator. In the implementation of this profit sharing, the owner of the rubber plantation as the cultivator and the passive farmer make an agreement in advance. However, in the application of agribusiness farming applied by rubber farmers in Nurussalam District, not all owners carry out all farming activities, among others, on the grounds that they are unable to carry out these activities or want to help workers who do not have business land but have the ability to do farming.

This research was conducted in Nurussalam District, East Aceh Regency. The study aims to identify the system to distinguish between the farmers who owned the cultivators and the farmers of disease and the income differences between the cultivators and the diseases in the district of Aceh. The method of data analysis used is qualitative and quantitative descriptive. This study showed that the system for the results done by rubber farmers in the Aceh region was 50:50, which means 50% for garden owners and 50% for disease farmers. The average income produced by the cultivator will grow Rp. 23,083,955.35 /ha and the average profit from the ill farmers Rp. 23,852,354.70 /ha, and the results from the statistical test indicate a significant value (2-tailed) $0.673 > 0.05$, which means that the hypothesis is rejected which states that there is no significant difference in income from rubber farming between sharecroppers and smallholders in Nurussalam sub-district, East Aceh district.

Keywords: Profit Sharing System, Cultivator Owners and Captive Farmers, Comparative profit

1. INTRODUCTION

Indonesia is an agricultural country where the agricultural sector plays a very important role in the overall national economy. This is what causes most of the population to depend on the agricultural sector or national products derived from agriculture. With the characteristics of an agrarian economy, agricultural land is a very important production factor for farmers. Differences in control over the amount and quality of land result in differences in production and income in the agricultural sector. The income received by farmers determines the consumption and savings patterns of farmers.

Determining the leading sector in a region is the first step towards economic development based on the concept of efficiency to achieve comparative and competitive advantages in facing the globalization of trade faced. Steps towards efficiency can be taken by using sectors that have comparative advantages both in terms of land area, production, demand and supply (Puteri, 2019).

Rubber is an export commodity that can contribute to efforts to increase Indonesia's foreign exchange. Rubber plants play a major role in Indonesia's economic life. Many people live by relying on this latex-producing commodity. Rubber is not only cultivated by large state-owned plantations, but also by the private sector and the people. This commodity has been known and cultivated for a relatively long time compared to other commodities. Rubber is one of the strategic

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plantation commodities, meaning that plantations have an important role in social, economic and environmental development (Law Number 39 of 2014 concerning Plantations).

Aceh Province has a fairly large potential for developing rubber plants. People's rubber plantations in Aceh Province are spread across almost all districts, one of which is in East Aceh Regency with a rubber plantation area reaching 22,218.50 ha. Nurussalam District is one of the rubber plant centers that has good potential in the future in East Aceh Regency with the growth of rubber plant area from productive plants, unproductive plants and non-productive plants of 22,218.50 Ha, rubber production growth of 14,733.72 tons, average rubber productivity of 902.00 Kg with the number of farmers as many as 11,459

KK. Seen for Nurussalam District, the growth of rubber plantation area is 1,153.00 Ha, rubber production growth is 781.38 tons, average rubber productivity is 875.00 Kg with the number of farmers as many as 507 KK. (Central Statistics Agency of East Aceh in 2020).

Table 1: Planted Area, Production, Average Productivity and Number of Rubber Farmers (People's Plantation Crops) in Nurussalam District 2016-2020

No	Year	WidePlant (Ha)	Production(Ton)	AverageProductivity (Kg)	Amountfarmer Rubber (KK)
(1)	(2)	(3)	(4)	(5)	(5)
1	2016	1143.00	742.00	649.16	477
2	2017	1143.00	742.00	649.16	477
3	2018	1153.00	742.00	643.53	477
4	2019	1153.00	781.38	677.69	507
5	2020	1153.00	781.38	677.69	507

Source: Central Bureau of Statistics of East Aceh in figures 2021

The implementation of agribusiness farming has various business patterns, including business owners doing every part of the farming activities themselves, business owners doing some of their farming activities with the rest being done by workers, business owners only controlling the business capital and all farming activities being done by cultivators. Seen from the table above, in Nurussalam District, the planting area has increased over the past six years, but the implementation of agribusiness farming that is applied is not all owners carrying out all farming activities, among others, for reasons of not being able to do these activities or wanting to help workers who do not have land but have the ability to farm.

One form of cooperation in farming is the profit sharing system, namely cooperation between rubber plantation owners as cultivators and tenant farmers. The implementation of this profit sharing, rubber plantation owners as cultivators and tenant farmers make an agreement in advance and in the agreement it is determined when to start cultivating and what percentage of the results will be shared. After an agreement is made, the tenants begin to carry out their duties, namely from cultivating the garden to harvest. It can be seen that Nurussalam District is not a district that has a large land area, but apart from being more dominant for rubber farmers, Nurussalam District also implements farming with a profit sharing system between tenant farmers and tenant farmers.

Nurussalam District has 31 villages, of which 4 villages are rubber plantation centers, namely Alue Siwah Serdang Village, Seunebok Rambong Village, Gampong Lhee and Beurandang

Village. The village, most of whose residents work as rubber farmers and villages that implement a profit-sharing system from rubber plants. The rubber tapping process has two patterns of rubber plantation management, namely plantations managed by rubber farmers and also by employing other people to work on the rubber plantation land. Therefore, the distribution of results will also be different between farmers who own land who manage their own land and farmers who own land and employ people to work on their land, with the existence of a profit-sharing system, this will certainly provide a difference in income between farmer owners and farmers.

2. LITERATURE AND THEORETICAL REVIEW

Isranti (2016), in a study entitled "Profit sharing system on the income of rubber farmers with tappers in Sungai Kuning Village, Singingi District, Kuantan Singingi Regency". The purpose of this study was to determine whether there was an influence of the profit sharing system on the income of rubber farmers with tappers. The analysis method used was a qualitative and quantitative descriptive analysis method. Agricultural results showed that the income of tappers that was the largest was when the one-third profit sharing system was implemented. While the income of landowners was the largest when the one-half profit sharing system was implemented.

Yunitasari Eka Putri (2020), in a study entitled "Analysis of profit sharing and farmer income on rubber plantations (Case study in Batanghari Leko District, Musi Banyuasin Regency)". The purpose of this study was to determine the profit sharing system and farmer income on smallholder rubber plantations in Batanghari Leko District, Musi Banyuasin Regency. The analysis method used was qualitative and quantitative descriptive analysis methods. The results of the study showed that the profit sharing cooperation system between owners and cultivators on smallholder rubber plantations in Batanghari Leko District used the Aqad Musaqah agricultural profit sharing system. The profit sharing ratio used was 50:50, 60:40 and 70:30. The profit sharing system used by smallholder plantation farmers in Batanghari Leko District, Musi Banyuasin Regency was Profit loss sharing. No one used revenue sharing, the impact of the profit sharing system on farmer income was very positive. However, it is called the price of rubber which is sometimes uncertain, farmers must have other side jobs to get additional income.

Fahrudin et al (2019), in a study entitled "Comparative Analysis of Income from Side Grafting and Top Grafting Cocoa Farming in Sidole Barat Village, Ampiado District, Parigi Mautong Regency". The purpose of the study was to determine the difference in income between side grafting and top grafting cocoa farming. The data analysis method used was income analysis and comparative analysis with t-test of two independent samples separated variance (separate variance). The results showed that the average income from side grafting cocoa farming was IDR 42,304,095.12/ha/year while top grafting cocoa farming was IDR 22,563,561.09/ha/year. The t-count value (5.93) is greater than the t-table (1.701), it can be concluded that the income from top grafting cocoa farming is greater than that from top grafting cocoa farming.

Intan Zahara (2021), in a study entitled "Comparative Analysis of Fermented Cocoa Farming Profits with Non-Fermented Cocoa in Juli District, Bireuen Regency". This study aims to determine whether there is a difference in profits between fermented cocoa farming and non-fermented cocoa farming in Juli District, Bireuen Regency. The data analysis method used in this study is profit analysis and profit difference test. The results of the study showed that the average profit of fermented cocoa farming was IDR 17,760,786/ha/year and the average profit of non-fermented cocoa farming was IDR 10,398,462/ha/year. The results of the statistical test showed a

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significant value (2-tailed) of $0.002 \leq$ from α (0.05) which means that the hypothesis is accepted which states that there is a difference in profits between fermented cocoa farming and non-fermented cocoa farming in Juli District, Bireuen Regency.

3. IMPLEMENTATION METHOD

This research was conducted in Nurussalam District, East Aceh Regency, where Nurussalam District has four villages, namely Alue Siwah Serdang Village, Seunebok Rambong Village, Gampong Lhee and Beurandang Village. The scope of the research is limited to the profit sharing system and comparative analysis of rubber farming income in Nurussalam District. The objects of this research are sharecroppers and sharecroppers in rubber farming in Nurussalam District, East Aceh Regency. The types of data used in this study consist of primary data and secondary data.

The sampling method used is Snowball Sampling. According to Sugiyono (2010), Snowball Sampling is a sampling technique that initially starts with the smallest number, then increases. This pattern of sampling is done by determining the first sample. The next sample is determined based on information from the second sample, the third sample is determined based on information from the second sample, and so on so that the number of samples increases as if there was a snowball effect. So the number of samples in this study was 27 sharecroppers and 13 sharecroppers.

4. RESULTS AND DISCUSSION

Analysis of Rubber Farming Income Based on Land Use Status

1. Fixed Costs

Fixed costs are costs that, regardless of the amount, do not affect production results. Fixed costs in rubber farming are equipment depreciation costs incurred by sharecroppers and sharecroppers. The availability of adequate equipment and raw materials will facilitate the production process. The details of the average equipment depreciation can be seen in table 11.

Table 1. Average depreciation of rubber farming equipment.

(1)	(2)	FarmerCultivator (Rp/Ha)	FarmerThe Scammer (Rp/Ha)
(1)	(2)	(3)	(4)
1	Tapping Knife	70,370.37	87,179.46
2	Mug	62,629	59,782
3	Gutter	10,609.05	10,222.15
4	Wire	16,806.56	16,000
5	Bucket	42.222	52,307.67
6	Shoe	63.333	78,461.53
Amounttotal		265,970.5	303,952.9

The average amount of depreciation costs incurred in rubber farming in Nurussalam District for tenant farmers is Rp. 265,90.5 per year and the depreciation costs incurred by tenant farmers are Rp. 303,952.9 per year. The average largest depreciation costs incurred by tenant farmers and tenant farmers are for the cost of tapping knives of Rp. 70,370.37 per year for tenant farmers and Rp. 87,179.46 per year for tenant farmers. The average smallest depreciation costs incurred by tenant farmers are gutters with a cost of Rp. 10,609.05 per year and for tenant farmers

also in gutter costs with a cost of Rp. 10,222.2 per year. The equipment used in this rubber farming business each has a fairly long economic life, namely 5 years or even 15 years depending on the type of equipment used in rubber farming.

2. Variable Costs

Variable costs are costs that the amount spent affects the results of production. The variable costs used in this rubber farming business are only fertilizer and transportation (gasoline). The following are the variable costs incurred by rubber farmers in Nurussalam District, East Aceh Regency.

(1)	(2)	FarmerCultivator (Rp/Ha) (3)	FarmerThe Scammer (Rp/Ha) (4)
1	TSP Fertilizer	380,444.4	379,076
2	Transportation (petrol)	1,235,555.5	1,409,230.76
	Depreciation	1,615,999.9	1,788,306.76

The average amount of variable costs incurred by sharecroppers is Rp. 1,625,999.9 per year and the average variable costs incurred by sharecroppers is Rp. 1,788,306.76 per year. The largest cost used for sharecroppers is transportation costs (gasoline) of Rp. 1,235,555.5 per year for sharecroppers the largest cost incurred is transportation costs (gasoline) of Rp. 1,788,306.76 per year. The use of transportation costs such as gasoline is greater because the distance traveled to the rubber plantation is quite far from the farmer's residence.

Farming activities carried out by rubber farmers in Nurussalam District for the maintenance of their own gardens such as providing fertilizer for plants and cleaning weeds, tenant farmers and tenant farmers do not use special labor to maintain their gardens, but the farmers themselves carry out garden cleaning activities if the farmers feel that their gardens are very overgrown and are carried out when they are working in the gardens, so the farmers themselves do not spend money on garden maintenance or fertilizing their own rubber plants.

3. Total Production Cost

The total cost of rubber farming production is the total cost of expenses incurred during one year of production. The average cost of rubber farming based on land use is as follows.

Table 3. Total Production Costs of Rubber Farming

(1)	(2)	FarmerCultivator (Rp/Ha) (3)	FarmerThe Scammer (Rp/Ha) (4)
1	Fixed Costs	265,970.5	303,952.9
2	Variable Costs	1,615,999.9	1,788,306.76
		1,881,970.4	2,092,259.68

Source: Primary Data (processed) 2022

The average cost incurred by rubber farmers in Nurussalam District shows that the average cost incurred by tenant farmers is greater than the cost of tenant farmers. The average cost incurred by tenant farmers is Rp. 2,092,259.68 per year while the cost of tenant farmers is Rp. 1,881,970.4 per year.

4. Rubber Farming Business Revenue

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The average income from rubber farming carried out by tenant farmers and subsistence farmers can be seen in the table below.

Table 4. Average Income from Rubber Farming in Burussalam District, East Aceh Regency

		FarmerCultivator (Rp/Ha/Year)	FarmerThe Scammer (Rp/Ha/Year)
(1)	(2)	(3)	(4)
1	Production (kg)	2,660	2,892.3
2	Price (Rp/kg)	9,407	9,077
3	Receipts (Rp)	24,965,925	25,944,615.36

Source: Primary Data (processed) 2022

The average production carried out by sharecroppers is 2,660 kg/ha/year with a selling price of Rp. 9,407/kg, for sharecroppers the average production is 2,892.3 kg/year with an average selling price of Rp. 9,077/kg. The result of multiplying the price by production shows that the average income of sharecroppers' rubber farming business is Rp. 24,965,925/ha and the average income of sharecroppers' rubber farming business is Rp. 25,944,615.36/ha. From the data above, it can be seen that the average income of sharecroppers is greater than sharecroppers, because when viewed from the results of rubber plant production, sharecroppers have greater production than sharecroppers.

5. Rubber Farming Income

Income is the difference between income and costs incurred. Farmers act as managers and investors in their farming activities, so it can be said that income is a reward for the cooperation of production factors used in the farming activities. The reward received by the owners of production factors is calculated in a certain period of time (Prasetyo, 2005). The following is the average income of rubber farming carried out by sharecroppers and sharecroppers can be seen in the table below.

Table 5. Average Income of Rubber Farming Business in Nurussalam District, East Aceh Regency

		Farmer Cultivator(Rp/Ha/Yea r)	FarmerThe Scammer / For Results 50%(Rp/Ha/Year)
(1)	(2)	(3)	(4)
1	Receipts (Rp)	24,965,925	25,944,615.36
2	Farming Costs (Rp)	1,881,970.4	2,092,259.68
3	Income (Rp/Ha)	23,083,955	11,926,177.5

Source: Primary Data (processed) 2022

The average income of rubber farming carried out by sharecroppers is Rp. 23,083,955/ha and the income of rubber farming carried out by sharecroppers is Rp. 23,852,355-/ha. The difference in income is caused by the costs incurred and the amount of income received by rubber farmers. Income has a positive relationship to income and costs and has a negative relationship to income. The greater the costs incurred and not balanced by the amount of income, the more it results in an income that is not comparable (low).

The farmer is a farmer who does not have his own land but works on land owned by other people using a profit-sharing system, where the profit sharing is carried out according to the agreement between the landowner and the farmer in Nurussalam District, namely divided into two or 50%:50%. So, from the income received by the farmer of Rp. 23,852,355.-/ha divided by 2 or 50%, the income received by the farmer is Rp. 11,926,177.5 ha.

The difference in average income and costs in rubber farming carried out by sharecroppers and sharecroppers results in differences in income obtained by farmers. Based on the value of the average income and costs of farming, it shows the difference in the average income of rubber farming carried out by sharecroppers and sharecroppers of Rp. 768,400/ha. Meanwhile, if we look at the difference in income of rubber farmers who apply the profit sharing system, the difference between sharecroppers and sharecroppers is Rp. 11,157,777.5/ha.

Comparative Analysis of Rubber Farming Income

Independent t-test is a parametric test used to determine whether there is a difference in the average of two independent groups or two unpaired groups with the aim that the two groups of data come from different subjects. This analysis was conducted to compare income between sharecroppers and sharecroppers. Proof to determine whether there is a difference in income is carried out by statistical testing using the t-test. The hypothesis used in this study is that there is a difference in income between sharecroppers and sharecroppers in Nurussalam District, East Aceh Regency as in table 16

Table 16. Comparison of Rubber Farming Income between Sharecroppers and Penyakap Farmers.

Description	FarmerCultivator	FarmerThe Scammer
(1)	(2)	(3)
Income	23,083,953.35	23,852,354.70
Standard deviation	7,950,092	6,728,446
t-count		-,300

Each rubber farming business that carries out rubber farming activities in Nurussalam District between sharecroppers is Rp. 23,083,953.35 -/ha higher than the rubber farming business carried out by sharecroppers, which is Rp. 23,852,354.70/ha. The results of the statistical test show that the sig F value is $0.673 > \alpha(0.05)$ which means that the variance in the study is homogeneous and the significant value (2-tailed) is $0.766 > \alpha(0.05)$ which means that the hypothesis is rejected which states that there is no significant difference in income between rubber farming carried out by sharecroppers and sharecroppers in Nurussalam District, East Aceh Regency.

Differences in land ownership status will affect the farming activities carried out by farmers, these differences will cause differences in farmer motivation and response to advanced production facilities which will then affect production levels (Hermanto, 1989). The difference in income between sharecroppers and sharecroppers in Nurussalam District is the enthusiasm for caring for and maintaining their rubber gardens, seen from these results that the income of sharecroppers is greater because sharecroppers have their own land so the enthusiasm they have is higher and will be better maintained in caring for their rubber gardens while sharecroppers do not have land and only work on land owned by others, therefore sharecroppers are better at caring for their own gardens than sharecroppers.

Being a sharecropper is more profitable than being a tenant farmer, because it is based on the fact that tenant farmers have the freedom to carry out farming activities. Tenant farmers will receive full net profits. Tenant farmers will be enthusiastic in increasing their production results depending on the profit sharing system that has been promised. In addition, tenant farmers will feel the burden of responsibility to produce maximum production.

5. CONCLUSION

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Based on the results of research on rubber farming carried out by sharecroppers and sharecroppers in Nurussalam District, East Aceh Regency, the following conclusions can be drawn:

1. The profit sharing system used by rubber farmers in Nurussalam District, East Aceh Regency, uses a 50:50 profit sharing system, which means 50% for plantation farmers and 50% for plantation farmers.
2. The results of the statistical test showed a significant value (2-tailed) of $0.766 > \alpha 0.05$, which means that the hypothesis is rejected, stating that there is no significant difference in income from rubber farming between sharecroppers and sharecroppers. The difference in income between sharecroppers and sharecroppers in Nurussalam District is the enthusiasm for caring for and maintaining their rubber gardens. From these results, it can be seen that the income of sharecroppers is greater because sharecroppers have their own land, so the enthusiasm they have is higher and will be better maintained in caring for their rubber gardens, while sharecroppers do not have land and only work on other people's land. Therefore, sharecroppers are better at caring for their own gardens than sharecroppers.

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