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ANALYSIS OF DRY LAND FARMING USING DIVERSIFIED AND INTEGRATIVE PEOPLE'S RUBBER PLANTATION BUSINESS SYSTEM FOR LARGE CHILI, TOMATO AND GOGO RICE CROP PRODUCTION IN TABALONG REGENCY, INDONESIA

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ABSTRACT
The area of rubber plantations in Tabalong Regency is 69,505 ha spread across 12 districts, 28.43% of the area of South Kalimantan rubber plantations which reached 244,421 ha. There are two rubber planting patterns, namely a single planting distance of 6 m, a distance between rows and 3 m, a distance between plants with a rubber population of 550 plants, while the SUPRADIN pattern, a double planting distance, a distance between double rows of 18 m, narrow rows of 2 m, and between plants of 2.5 m with a plant population of 400 / ha. Annuals that are intercropped from the SUPRADIN rejuvenation model in rubber plants in Tabalong Regency are gogo rice plants and tomato plants. Gogo rice, tomatoes and large chilies are crops that very suitable for planting in highland areas, so this is in accordance with land conditions in the Tabalong Regency area. The purpose of this study is to analyze the cost, income and profit structure, as well as the feasibility of farming gogo rice, tomatoes and large chilies as interstitial crops in dry land in the SUPRADIN (Diversified and Integrative People's Rubber Plantation Business System) pattern in Tabalong Regency. Based on the results of the study, it shows that the amount of gogo rice farming issued by rubber farmers in the SUPRADIN pattern is IDR 9,312,447 / ha, with an income of IDR 13,662,540 / ha, and a profit of IDR 6,841,930 / ha. In tomato farming, the farming costs incurred amounted to IDR 34,195,357 / ha, with income of IDR 54,726,372 / ha, and the profit amounted to IDR 34,599,528 / ha. Meanwhile, the cost of large chili farming is IDR 43,977,327 / ha, with income of IDR 97,258,483 / ha, and profits of IDR 74,392,969 / ha. In addition, in terms of feasibility, gogo rice, tomato and large chili can be said to be worth cultivating. The RCR value of large chili farming is 2.69, meaning that every IDR 1 of farm costs incurred provides revenue of IDR 2.69. The RCR value of tomato farming is 2.03, meaning that every IDR 1 of farming costs incurred provides revenue of IDR 2.03. While the RCR value of gogo rice farming is 1.76, meaning that every IDR 1 of farming costs incurred provides revenue of IDR 1.76.

KEY WORDS
Chili, farming, gogo rice, SUPRADIN, tomato.

Constraints and opportunities for the development of rubber intercropping technology – food crops in an effort to increase farmers' income and food production in a sustainable manner, several aspects need to be seen. One aspect that is of concern in this case is changing the single planting distance system (JT) to double planting distance (JG) so that the open space between rubber plants is wider to plant food crops as interstitial crops. In the area between JG system rubber plants, food crops are easier to get sunlight, temperature, and water, but the rubber plant population is slightly reduced, so latex yields are also relatively reduced compared to JT system rubber plants.

Intercropping rubber with annuals technically benefits the growth of rubber plants and economically supports the increase in rubber farming income. The main considerations in this intercropping are choosing a suitable intercropping system, market channels, labor availability

and security. The main purpose of intercropping is to increase the frequency of farmers' visits. In plantation crops, the more visited, the more successful it will be.

Intercropping is carried out in rubber rejuvenation with a single planting distance can only be done 1-2 years, after the third year only certain plants can because the rubber crown is closed. Research experience of Rubber Research Center and farmers shows that intercropping makes soil organic content high because the remaining annuals become organic fertilizer. Fertilization in annuals also has a good effect on rubber because it is fertilized.

The rubber center has conducted research on intercropping rubber with pineapple, sweet corn, cayenne pepper, soybeans, gogo rice, corn, sorghum, peanuts, peanuts, bananas, long beans. While in the third year intercropping can still be done with shade-resistant plants, namely turmeric, ginger, cardamom and what is popular now porang. Meanwhile, if rubber intercropping with annuals if you want to do permanently, the rejuvenation method chosen is with double planting spacing. The open area with this system is large enough so that tillage must use agricultural machinery. The rubber population itself reaches 400 sticks / ha.

In this pattern, the Rubber Center has intercropped rubber with bananas, sugarcane as well as annual oil palm and cocoa crops. Meanwhile, Musi Rawas farmers intercrop rubber with corn, sugarcane and chili. Farmers in Tanah Laut and Tabalong intercrop rubber with gogo rice, chili and corn. Farmers in Muba intercrop rubber with gambier.

Rubber rejuvenation with a SUPRADIN pattern or double pattern will be more profitable for farmers to develop interstitial crop business to get results before rubber staple crops produce at the age of 4-5 years. after rubber crops production and plant growth reach 10-20 years in between – the strait of plants can still be planted interstitial crops for farmers' income with the term perennial land for business because the SUPRADIN pattern with the size of the planting distance is 2x2.5x18 M. This 18-meter branch will be used for unlimited interchangeable plants.

The area of rubber plantations in Tabalong Regency is 69,505 ha spread across 12 districts, 28.43% of the area of South Kalimantan rubber plantations which reached 244,421 ha. There are two rubber planting patterns, namely a single planting distance of 6 m, a distance between rows and 3 m, a distance between plants with a rubber population of 550 plants, while the SUPRADIN pattern, a double planting distance, a distance between double rows of 18 m, narrow rows of 2 m, and between plants of 2.5 m with a plant population of 400 / ha.

Annuals that are intercropped from the SUPRADIN rejuvenation model in rubber plants in Tabalong Regency are gogo rice plants and tomato plants. Gogo rice, tomatoes and large chilies are crops that are very suitable for planting in highland areas, so this is in accordance with land conditions in the Tabalong Regency area.

Rice plants can grow well in the South Kalimantan region. Likewise, chili and tomato plants, which are found in tropical regions such as in Indonesia, these plants have a relatively short lifespan, so they are suitable for research. According to (Wijayani & Widodo, 2005) tomato varieties are relatively many, including Ratna, Diamond, Pearl, Bonanza, Intan, Kaliurang 206 and others.

Based on the description above, and considering that the Tabalong Regency area has a relatively large rubber plantation area so that it has the potential to implement the SUPRADIN pattern (Diversified and Integrative People's Rubber Plantation Business System), research is needed on the analysis of dry land use farming in rubber rejuvenation land SUPRADIN pattern (diversified and integrative people's rubber plantation business system) large chili plant business, tomatoes and gogo rice in Tabalong Regency.

METHODS OF RESEARCH

This research will be carried out on rubber rejuvenation land owned by farmers in Tabalong Regency. The preparation and implementation of this research will be carried out from

October 2022 to March 2023. Data processing and report making will be carried out from April to May 2023.

There are two types of data used in this study, namely primary data and secondary data. What is meant by primary data is data obtained from direct interviews with farmers who are research samples. Meanwhile, what is meant by secondary data is data obtained based on institutional literature studies and related agencies in this study, such as the Central Bureau of Statistics of Tabalong Regency, the Tabalong Regency Agriculture Office, the Tabalong Kabuoaten Plantation Office, the District Extension Center (BPK) and other related agencies.

The method of drawing examples in this study was carried out through several stages. These stages consist of determining the sub-district area, determining the village, and then determining the research sampling unit. The sampling determination process is carried out as follows:

- First stage: choose 4 sub-districts (Bintang Ara District, Muara Uya District, Haruai District and Jaro District). These sub-districts were chosen with consideration, because the 4 sub-districts are sub-districts that carry out rubber rejuvenation with the SUPRADIN pattern (Tabalong Regency Plantation Office, 2022);
- The second stage: selecting villages that carry out rubber rejuvenation with the SUPRADIN pattern in the 4 sub-districts. The villages that carry out rubber rejuvenation with the SUPRADIN pattern with annuals cultivated in the form of tomatoes, gogo rice and large chilies are Usih Village and Argomulyo Village located in Bintang Ara District, Ribang Village located in Muara Uya District, Bongkang Village and Wirang Village located in Haruai District, and Solan Village located in Jaro District;
- The third stage selects a sample of farmers who carry out rubber rejuvenation with the SUPRADIN pattern as a sampling unit. The determination of rubber farmer samples is by simple random sampling with the number of samples taken by 150 farmers from 840 farmers who have implemented this SUPRADIN pattern. The number of 150 farmers sampled was taken in proportion to each selected village.

Table 1 – The arrangement of the number of research samples

No	District	Village	Population			Sample		
			Gogo Rice	Tomato	Big Chili	Gogo Rice	Tomato	Big Chili
1	Ara Star	Agromulyo	100	50	35	18	9	6
2		Usih	46	28	29	8	5	5
3	Uya Estuary	Ribang	28	79	58	5	14	11
4	Haruai	Bongkang	23	47	47	4	8	9
5		Wirang	33	50	46	6	9	8
6	Spring	Solan	50	28	63	9	5	11
Total			280	282	278	50	50	50

Data analysis used to answer the first objective is to analyze the cost, income and profit structure of farming gogo rice, tomatoes and large chilies carried out by tabulation and calculation processes. Tabulation and calculation process using *Microsoft Office Excel* 2021.

To find out the costs used in farming, identification of the types of costs used is carried out. All expenses from the farming process are also called the total cost of farming. The formula for the total cost of farming is as follows (Kasim, 2006):

$$TC = TC_e + TC_i$$

Where:

- TC: Total Cost of Farming (IDR);
- TC_e: Total Explicit Cost of Farming (IDR);
- TC_i: Total Implicit Cost of Farming (IDR).

Explicit costs are costs incurred in cash or real by farmers in farming activities. Explicit farming costs such as land rental costs, purchasing seeds, fertilizers, pesticides, wages for non-family labor, equipment depreciation costs, and others. The explicit cost of farming can be calculated using the following formula (Kasim, 2006):

$$TC_e = \sum X_i \, . \, P_i$$

Where:

- X i: Number of uses of i-th farm explicit inputs;
- P_i: The price of the i-th farm's explicit input.

To calculate the depreciation value of equipment used in farming using the *Straight Line Depreciation Method* formula. In general, the formula can be written as follows (Kasim, 2006):

$$D = \frac{A - R}{N} \text{ x } L$$

Where:

- D: The amount of depreciation value every year (IDR);
- A: Initial purchase value (IDR);
- R: Estimated residual value (IDR);
- N: Economic life of the item (years);
- L: Duration of effective use of the farm (years).

Implicit costs are costs that are not incurred in cash or real by farmers in agricultural activities, but only implicitly. The implicit costs of farming are such as the cost of own land, labor costs in the family, capital interest and others. The implicit cost of farming can be calculated using the following formula (Kasim, 2006):

$$TC_i = \sum X_{in} \, . \, P_{in}$$

Where:

- X i: Number of uses of i-th farm implicit inputs;
- P_i: I-th farm implicit input price.

Revenue is the multiplication between the physical amount of production and the price of the product per piece. Farm revenue is also called the value of farm production in currency. Acceptance can be calculated using the following formula (Eunuch, 2006):

$$TR = Y.P_{and}$$

Where:

- TR: Total *Revenue* (IDR);
- Y: Total farm production (kg);
- $P_{y:}$ Product price (IDR/kg).

Income is the income of farmers who have been reduced by explicit costs. To calculate income, the following formula can be used (Kasim, 2006):

$$I = TR - TC_e$$

Where:

- I: Farm income (IDR).

Profit is the total revenue that has been reduced by the total cost of the entire farm. This farming profit can be calculated using the following formula (Kasim, 2006):

$$\pi = TR - TC$$

Where:

- π: Farm profit (IDR).

To answer the second goal, namely analyzing the feasibility of farming, gogo rice and tomato plants as interstitial crops, it is carried out using the RCR (*Revenue Cost Ratio*) method. The calculation formula for the RCR (*Revenue Cost Ratio*) method is as follows (Soekartawi, 1995):

$$RCR = \frac{TR}{TC}$$

Where: RCR - Revenue Cost Ratio; TR - Total Revenue, TC = Total Cost, and If the RCR > 1 then farming is feasible, If RCR = 1, then the Break Event Point (BEP) farm, If RCR < 1, farming is not feasible.

RESULTS AND DISCUSSION

Explicit costs in farming gogo rice, tomatoes and large chilies consist of the cost of using seeds, fertilizers, pesticides, depreciation of tools, and labor costs outside the family. The explanation of these costs is presented as follows.

Seeds are a factor of production that determines the production results that will be obtained by farmers. The wider the agricultural land used by farmers, the wider the seed needs that will be needed by farmers. Based on data processing, it shows that the need for gogo rice seeds per hectare is 40.12 kg with a seed price of IDR 9,000 / kg, so the seed costs incurred are IDR 361,105 / ha. While the seed requirement for tomatoes is 5.65 packs with contents per pack of 20 grams of tomato seeds and the price per pack is IDR 81,400. So that the cost of tomato seeds needed is IDR 459,666 / ha. In large chili farming requires seeds per hectare of 6.07 packs with contents per pack of 20 grams and a price per pack of IDR 100,200, thus the cost of large chili seeds is IDR 613,425 / ha.

Fertilizer serves as a production factor that supports plant growth, by supplementing the nutrients that are lacking in the soil. Through the provision of fertilizers, the production of cultivated commodities can provide better results. The fertilizer needs used in the cultivation of gogo rice, tomatoes and large chilies in the SUPRADIN pattern in the research area are presented in Table 2.

Table 2 – The cost of fertilizer in the cultivation of gogo rice, tomatoes and large chilies

No	Types of fertilizers	Gogo Rice		Tomato		Big Chili	
		Per Farm	per hectare	Per Farm	per hectare	Per Farm	per hectare
1	Cultivate NPK						
	Volume (kg)	51,25	51,23	58	200	54,32	201
	Price (IDR/kg)	3.500	3.500	3.500	3.500	3.500	3.500
	NPK Costs	179.375	179.298	203.000	698.967	190.120	703.404
2	Urea Fertilizer						
	Volume (kg)	100,80	100,76				
	Price (IDR/kg)	3.000	3.000				
	Urea Cost	302.400	302.270				
3	Liquid Fertilizer						
	Volume (L)			1,77	6,09	1,80	6,64
	Price (IDR/L)			61.700	61.700	61.700	61.700
	Liquid Fees			109.050	375.480	110.700	409.567
Total Cost of Fertilizer		481.775	481.569	312.050	1.074.447	300.820	1.112.970

Source: Primary Data Processing, 2023.

Based on the data presented in Table 2, it shows that the cost of fertilizer in large caba and tomato farming activities per hectare is greater than the use of fertilizer for gogo rice farming. The total cost of large chili farming fertilizer is IDR 1,112,970 / ha, consisting of NPK fertilizer costs of IDR 703,404 / / ha and liquid fertilizer of IDR 409,567 / ha. The total cost of tomato farming fertilizer is IDR 1,074,447/ha, consisting of NPK fertilizer of IDR 698,967/ha and liquid fertilizer of IDR 375,480/ha. Meanwhile, the cost of fertilizer in gogo rice farming is only IDR 481,569/ha, consisting of NPK fertilizer of 179,298/ha and urea fertilizer of IDR 302,270/ha.

Pesticides are used to reduce the risk of decreased production resulting from attacks from organisms that disturb staple crops, both weeds, pests and diseases caused by fungi and viruses. The use of pesticides used by farmers in this study area is presented in Table 3.

Table 3 – The cost of pesticides on the farming of gogo rice, tomatoes and large chilies

No	Types of Pesticides	Gogo Rice		Tomato		Big Chili	
		Per UT	For Ha	Per UT	For Ha	Per UT	For Ha
1	Contact herbicides						
	Volume (liter)	1,79	1,78	1,46	5,01	1,37	5,05
	Price (IDR/liter)	75.000	75.000	75.000	75.000	76.200	76.200
	Contact herbicide cost	133.875	133.818	109.125	375.738	104.150	385.333
2	Systemic herbicides						
	Volume (liter)	2,02	2,02				
	Price (IDR/liter)	80.000	80.000				
	Cost of systemic herbicides	161.600	161.531				
3	Insecticide						
	Volume (bottle)	1,79	1,78	3,55	12,22	6,66	24,64
	Price (IDR/bottle)	60.000	60.000	80.000	80.000	79.900	79.900
	Cost of insecticide	107.100	107.054	284.000	977.865	533.200	1.972.727
4	Rodentisida						
	Volume (bgks)	1,79	1,78				
	Price (IDR/bgks)	25.000	25.000				
	Cost of rodenticides	44.625	44.606				
5	Fungicide			3,55	12,22	6,66	24,64
	Volume (bottle)			50.000	50.000	62.300	62.300
	Price (IDR/bottle)			177.500	611.166	416.700	1.541.702
	Cost of fungicide						
Total Cost of Pesticides		447.200	447.008	570.625	1.964.769	1.054.050	3.899.762

Source: Primary Data Processing, 2023.

Based on the data presented in Table 3, it shows that the need for pesticide costs per hectare for large chili plants is much greater than the pesticide costs incurred by tomato and gogo rice farmers. The cost of pesticides in large chili farms is IDR 3,899,762 / ha, consisting of contact herbicide costs of IDR 385,333 / ha, insecticide costs of IDR 1,972,727 / ha, and fungicide costs of IDR 1,541,702 / ha. The cost of pesticides in tomato farming is IDR 1,964,769 / ha, consisting of contact herbicide costs of IDR 375,738 / ha, insecticide costs of IDR 977,865 / ha, and fungicide costs of IDR 611,166 / ha. While the cost of pesticides for gogo rice plants is IDR 447,008 / ha, consisting of contact herbicides of IDR 133,818 / ha, systemic herbicide costs of IDR 161,531/ha, insecticide costs of IDR 107,054/ha, and rodenticide costs of IDR 44,606/ha.

Equipment used in agricultural activities tends to have an economic life that can be used up to several years, so in calculating the cost it is necessary to calculate depreciation costs. The depreciation cost of equipment used in the farming activities of gogo rice, tomatoes and large chilies of the SUPRADIN pattern is presented in Table 4.

Based on the data presented in Table 4, it shows that the total cost incurred for depreciation costs for tools in large chili and tomato farming activities is greater than the depreciation cost of tools for gogo rice farming activities per hectare. The depreciation cost of equipment in large chili farming is IDR 5,997,917 / ha, with the largest component being the

depreciation cost of mulch. In tomato farming activities, the depreciation cost of the tool is IDR 5,518,648 / ha, with the largest component of equipment depreciation costs for the depreciation of black silver plastic mulch. Meanwhile, the depreciation cost of equipment in gogo rice farming is IDR 361,674 / ha.

Table 4 – Depreciation of tools in the cultivation of gogo rice, tomatoes and large chilies

No	Types of Tools	Gogo Rice		Tomato		Big Chili	
		Per UT	For Ha	Per UT	For Ha	Per UT	For Ha
1	Sounds like	32.635	32.621	28.270	97.339	26.560	98.266
2	Gold	19.581	19.572	19.221	66.181	16.561	61.271
3	Hoes	24.473	24.463	24.013	82.682	27.073	100.165
4	Sprayer	65.270	65.242	129.680	446.513	125.400	463.953
5	Mulch			1,315,450	4.866.887	1.319.800	4.882.981
6	Boots	22.650	22.640	22.883	78.792	22.433	82.999
7	Lanjung	22.845	22.835				
8	Sack	43.934	43.916				
9	Glove	5.441	5.439	5.489	18.900	6.424	23.767
10	Desire	13.333	13.328				
11	Sheeting	111.667	111.619	35.933	123.725	47.733	176.603
12	Arko			21.833	75.176	29.167	107.911
Total Depreciation		361,829	361.674	1.602.773	5.518.648	1.621.151	5.997.917

Source: Primary Data Processing, 2023.

Workers outside the family (TKLK) are workers who come from outside the family, who carry out activities paid with a wage value. Workers outside the family are needed in land clearing / processing, planting, weed weeding and HPT control, as well as harvesting. The cost of non-family labor in rice gogo farming activities, tomatoes and large chilies are presented in Table 5.

Table 5 – TKLK cost of farming gogo rice, tomatoes and large chilies

No	Activities	Gogo Rice		Tomato		Big Chili	
		Per UT	For Ha	Per UT	For Ha	Per UT	For Ha
1	Land clearing / tillage	342.000	341.853	786.800	2.709.100	757.600	2.802.960
2	Planting	408.640	408.465	786.800	2.709.100	608.400	2.250.951
3	Weeding and HPT control			813.200	2.800.000	836.800	3.095.983
4	Harvest	90.200	90.161	395.600	1.362.125	361.600	1.337.844
Total Cost of TKLK		840.840	840.480	2.782.400	9.580.325	2.564.400	9.487.738

Source: Primary Data Processing, 2023.

Based on the data presented in Table 5, it shows that the cost of out-of-family labor in large chili and tomato farming is greater than that of the SUPRADIN pattern of gogo rice farming. The cost of non-family labor in tomato farming is IDR 9,580,325 / ha, with a large TKLK cost, namely in weed weeding and HPT control activities. The cost of out-of-family labor in large chili farming is IDR 9,487,738/ha, with the largest TKLK costs in weed weeding and HPT control activities. The cost of labor outside the gogo rice farming family is IDR 840,480 / ha, with a large TKLK cost, namely in planting activities.

Self-owned land is not paid directly as an expense, but is still counted as an implicit cost. Based on data processing, it shows that the cost of one's own land of gogo rice per farm is larger than that of large tomatoes and chili farmers; this is because the average area of gogo rice farming is larger than tomatoes and large chili. The cost of owning land in gogo rice farming is IDR 2,501,071/ha, while the cost of owning land in tomato farming is IDR 726,071/ha, and the cost of owning large chili farming is IDR 675,714/ha.

Labor in the family (TKDK) is labor sourced from within the family whose wages are not paid directly. The activities in the cultivation of gogo rice, tomatoes and large chilies carried out by TKDK consist of clearing / processing land, seeding, planting, fertilizing, weeding weeds and controlling HPT, harvesting, transportation, and post-harvest. The TKDK costs of farming gogo rice, tomatoes and large chilies of the SUPRADIN pattern are presented in Table 6.

Table 6 – TKDK cost of farming gogo rice, tomatoes and large chilies

No	Activities	Gogo Rice		Tomato		Big Chili	
		Per UT	For Ha	Per UT	For Ha	Per UT	For Ha
1	Land clearing / tillage	803.200	802.856	813.200	2.800.000	783.200	2.897.674
2	Seeding			204.800	705.165	209.200	773.996
3	Planting	956.480	956.070	813.200	2.800.000	627.600	2.321.987
4	Fertilization	244.000	243.895	408.800	1.407.575	418.400	1.547.992
5	Weeding and HPT control	482.240	482.033	1.626.400	5.600.000	1.673.600	6.191.966
6	Harvest	1.205.200	1.204.684	813.200	2.800.000	1.046.000	3.869.979
7	Transport	122.000	121.948	204.800	705.165	418.400	1.547.992
8	Post-harvest	366.000	365.843				
Total Cost of TKDK		4.179.120	4.177.330	4.884.400	16.817.905	5.176.400	19.151.586

Source: Primary Data Processing, 2023.

Based on the data presented in Table 6, it shows that labor costs in the family incurred from large chili and tomato farming activities are greater than those of gogo rice farming. The cost of labor in the family in large chili farming is IDR 19,151,586 / ha, with the largest component of TKDK costs being weed weeding and HPT control activities of IDR 6,191,966 / ha. Labor costs in families in tomato farming amounted to IDR 16,817,905 / ha, with the largest component of TKDK costs found in weed weeding and HPT control activities amounting to IDR 5,600,000 / ha. While labor costs in the family in gogo rice farming amounted to IDR 4,177,330 / ha, with the largest component of TKDK costs found in harvesting activities amounting to IDR 1,204,684 / ha.

Interest on own capital is a cost that is not incurred directly, so it is calculated as an implicit cost. The interest rate calculated using the BI 7-Day Reverse Repo Rate (BI7DRR) is 5.75%. Based on data analysis, it shows that the interest on own capital in large chili and tomato farming activities is greater than that of gogo rice farming, this is because the capital needed for large chili and tomato farming is greater than the capital of gogo rice farming. Interest on own capital in large chili farming activities is IDR 1,213,515 / ha and tomato farming is IDR 808,939 / ha, while interest on own capital in rice gogo farming activities is IDR 143,281 / ha.

Farm income is farm revenue after deducting explicit costs. While farm profits are farm income that has been reduced by implicit costs or farm revenues after deducting the total cost of farming. Farm revenue itself is the product of physical production at the unit price of production. The income & profit of gogo rice, tomato and large chili farmers, the SUPRADIN pattern is presented in Table 7.

Table 7 – Income & profit of gogo rice, tomato and chili farming

No	Description	Gogo Rice		Tomato		Big Chili	
		Per UT	For Ha	Per UT	For Ha	Per UT	For Ha
1	Acceptance	16.161.300	16.154.377	19.980.000	68.794.884	31.993.800	118.370.296
2	Explicit Costs	2.492.904	2.491.836	4.085.898	14.068.513	5.706.221	21.111.813
3	Implicit Costs	6.823.533	6.820.610	5.845.411	20.126.844	6.180.222	22.865.515
4	Total Farm Cost	9.316.438	9.312.447	9.931.309	34.195.357	11.886.443	43.977.327
5	Income	13.668.396	13.662.540	15.894.102	54.726.372	26.287.579	97.258.483
6	Advantage	6.844.862	6.841.930	10.048.691	34.599.528	20.107.357	74.392.969

Source: Primary Data Processing, 2023.

Based on the data presented in Table 7, it shows that the income and profit of large chili and tomato farming are greater than the SUPRADIN pattern of gogo rice farming. The income of large chili farming is IDR 97,258,483 / ha, tomato farming is IDR 54,726,372 / ha, while gogo rice farming is IDR 13,662,540 / ha. The profit of large chili farming is IDR 74,392,969 / ha, tomato farming is IDR 34,599,528 / ha, while gogo rice farming is IDR 6,841,930 / ha.

Farm feasibility is measured using the ratio of revenue to *total farm costs (revenue cost ratio*). The greater the revenue compared to the cost, the greater the RCR value. If the RCR value is greater than 1, then farming is said to be feasible. Conversely, if the RCR value is smaller than 1, then farming is said to be not feasible. Meanwhile, if the RCR value is equal to 1, then the farm is at the break-even point (BEP). The feasibility of gogo rice farming, tomato farming and large chili farming is presented in Table 8.

Table 8 – Feasibility in the farming activities of gogo rice, tomatoes and large chilies

No	Commodities	RCR	Information
1	Gogo Rice	1,76	Proper
2	Tomato	2,03	Proper
3	Big Chili	2,69	Proper

Source: Primary Data Processing, 2023.

Based on the data presented in Table 8, it shows that gogo rice farming, tomato farming and large chili farming are worth cultivating. The RCR value of large chili farming is greater than that of tomato and gogo rice farming. The RCR value of large chili farming is 2.69, meaning that every IDR 1 of farm costs incurred provides revenue of IDR 2.69. The RCR value of tomato farming is 2.03, meaning that every IDR 1 of farming costs incurred provides revenue of IDR 2.03. While the RCR value of gogo rice farming is 1.76, meaning that every IDR 1 of farming costs incurred provides revenue of IDR 1.76.

CONCLUSION

The cost of gogo rice farming incurred by SUPRADIN pattern rubber farmers is IDR 9,312,447 / ha, with income of IDR 13,662,540 / ha, and profits of IDR 6,841,930 / ha. In tomato farming, the farming costs incurred amounted to IDR 34,195,357 / ha, with income of IDR 54,726,372 / ha, and the profit amounted to IDR 34,599,528 / ha. Meanwhile, the cost of large chili farming is IDR 43,977,327 / ha, with income of IDR 97,258,483 / ha, and profits of IDR 74,392,969 / ha.

Gogo rice farming, tomato and large chili farming are worth cultivating. The RCR value of large chili farming is 2.69, meaning that every IDR 1 of farm costs incurred provides revenue of IDR 2.69. The RCR value of tomato farming is 2.03, meaning that every IDR 1 of farming costs incurred provides revenue of IDR 2.03, while the RCR value of gogo rice farming is 1.76, meaning that every IDR 1 of farming costs incurred provides revenue of IDR 1.76.

The advice that can be given based on the results of research that farming activities intercropping annuals (gogo rice, tomatoes and large chili) can be recommended to be applied to other farmers in the SUPRADIN pattern rubber planting, because the results of the analysis show that these commodities are worth cultivating. In addition to these recommendations, there also needs to be support for access to farming capital for farmers, considering that the cost structure incurred in seasonal farming activities is quite large, especially in large chili and tomato farms. In addition, the government still has to provide assistance either through local agricultural extension workers or in collaboration with universities. And it is also necessary to conduct further research or study, making optimization models for various combinations of seasonal farming branches that can be applied to rubber plants with the SUPRADIN pattern in Tabalong Regency.

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