

CONTRIBUTION OF RAIN-FEED RICE FARMING TO HOUSEHOLD INCOME IN RANTO DISTRICT PEUREULAK, EAST ACEH DISTRICT

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Abstract

The study was conducted in Ranto Peureulak District, East Aceh Regency from October-November 2021. This study aims to of this study was to analyze the income of rainfed lowland rice farmers and analyze the contribution of rainfed lowland rice farming to household income in Ranto Peureulak District, East Aceh Regency. the object of research is carried out intentionally (purposely). The types of data used are primary data and secondary data. The type of data used consists of descriptive qualitative and descriptive quantitative approaches. The results of this study indicate that the average income of rainfed lowland rice farming in Ranto Peureulak District, East Aceh Regency for per self-owned land area is IDR 2,724,930.7.00 for per arable land area of IDR 1,871,354.6, 00 and per area of leased land. amounting to IDR 217,000.2.00 per hectare. Rainfed lowland rice farming contributes to the household income of farmers with own land status by 34.5%, for smallholders by 40.1% and for tenant farmers by 6.7%.

Keywords: *Contribution, rainfed lowland rice farming, household income*

INTRODUCTION

Indonesia is a country rich in natural resources that are spread throughout the regions throughout Indonesia. Indonesia is also an archipelagic country known as an agricultural country, which means that most Indonesian people work as farmers. However, Indonesia is also the world's second largest food importer, this is certainly not appropriate for an agricultural country that should be able to meet its own food needs. Apart from that, Indonesia is also famous for its fertile soil so that wherever you plant plants, they can grow well (Sjamsir, 2017).

Agriculture is a primary sector in the Indonesian economy. This means that agriculture is the main sector that contributes almost half of the economy. Agriculture also has a real role as a foreign exchange earner through exports (Sjamsir, 2017). One of the agricultural sub-sectors that has an important role is the food crop agriculture sub-sector, because it is not only a source of staple food for more than 95% of Indonesia's population, but also a provider of jobs and a source of income for around 21 million agricultural households. The food crop sector is one of the sub-sectors whose existence is very crucial. The food crop sector has proven to be able to support the main income of the community, especially people in rural areas. One of the food crops that has a very strategic position and as a source of provision of the main staple food needs is the commodity of paddy rice plants. (Susanto, 2004).

Aceh Province is one of the provinces in Indonesia with a large agricultural sector. Paddy fields are the main object of agricultural development in Aceh, in addition to being a food requirement for the people of Aceh, especially those who consume rice, they also provide a wide range of employment opportunities for the community. Aceh Province has several regencies/cities that have different harvest areas, production and productivity of paddy fields. The following will present the harvest area, production and productivity of paddy fields in Aceh Province in 2020 as seen in table 1.

Suhartini¹, Jamilah², Setia Budi³

Table 1. Harvested Area, Production and Productivity of Lowland Rice in Aceh Province in 2020.

Regency/City	Harvested Area (ha)	Production (tons)	Productivity (ton/ha)
(1)	(2)	(3)	(4)
Simeulue	7,575.75	30,588.85	40.38
Aceh Singkil	745.99	3,936.61	52.77
South Aceh	9,913.43	53,773.07	54.24
Southeast Aceh	10,504.65	60,516.29	57.61
East Aceh	29,552.04	148,475.04	50.24
Central Aceh	3,547.22	17,054.64	48.08
West Aceh	13,832.38	62,785.99	45.39
Great Aceh	33,019.06	169,101.04	51.21
Pidie	39,009.26	249,491.84	63.96
Bireuen	28,017.62	176,134.97	62.87
North Aceh	72,431.72	390,517.69	53.92
Southwest Aceh	18,201.41	70,095.80	57.45
Gayo Lues	6,507.24	36,047.30	55.40
Aceh Tamiang	15,113.95	67,053.49	44.37
Great Nagan	8,938.81	36,161.26	40.45
Aceh Jaya	9,587.05	56,518.36	58.95
It's Really Meriah	394.91	2,161.94	54.75
Pidie Jaya	15,981.67	101,731.50	64.02
Banda Aceh	15.64	84.82	54.23
Sabang	-	-	-
Langsa	1,606.85	6,567.97	40.87
Lhokseumawe	1,942.15	10,966.40	56.47
Subulussalam	404.05	2,232.07	55.24
Aceh	320,752.85	1,751,996.94	54.62

Source: Central Statistics Agency of Aceh Province in figures 2021

Table 1 above shows that In 2020, the harvested area of paddy fields in Aceh Province was 320,752.85 ha with a production of 1,751,996.94 tons and a productivity of 54.62 tons/ha. From the data above, it can be seen that East Aceh Regency is in the third largest position with a harvested area in Aceh Province of 29,552.04 hectares and in the fifth position with the largest production in Aceh Province of 148,475.04 tons. East Aceh Regency as one of the food buffers in Aceh Province has a fluctuating level of rice production from time to time. Production is basically the result of multiplying the harvested area by the productivity per hectare of land, so how much production a region produces depends greatly on the harvested area on the land in question or what its productivity level is. The area of land available is fixed, and even tends to decrease due to conversion to non-agricultural functions (Iswahyudi, 2014). Ranto Peureulak District is one of the areas producing lowland rice that is still productive in the rice production process, Ranto Peureulak District has a planting area that is not too large, which is 55 hectares. However, the harvested area, production and productivity can be said to be high, namely a harvested area of 1,520 hectares with a production of 1,751 tons and a productivity of 5.10 tons/ha. Clearly, regarding the development of planting area, harvested area, production and productivity of lowland rice farming in East Aceh Regency can be seen in table 2.

Suhartini¹, Jamilah², Setia Budi³

Table 2. Planted Area, Harvested Area, Production and Productivity of Rice in East Aceh Regency in 2020

No	Subdistrict	Planted Area (Ha)	Harvested Area (Ha)	Production (tons)	Productivity (Ton/Ha)
1	All-round	1.253	1.253	4.010	3.20
2	Clear Crossroads	405	531	1,922	3.62
3	Peunaron	1,855	1,778	7.333	4.12
4	Ranto Peureulak	55	1,520	7,752	5.10
5	Peureulak	1,634	2.434	13,630	5.60
6	East Peureulak	920	873	4.496	5.15
7	West Peureulak	304	404	2.222	5.50
8	Idi Rayeuk	228	419	2.108	5.03
9	The Peudawa	743	942	4,748	5.04
10	Nature Band	560	522	2,876	5.51
11	Idi Tunong	243	387	2,051	5.30
12	The Great Journey	371	665	3.312	4.98
13	East Idi	255	414	2,070	5.00
14	Darul Aman	833	1,872	9,547	5.10
15	Peace be upon you	1,006	1,320	6,732	5.10
16	Darul Falah	255	667	3.335	5.00
17	Julok	854	1,082	5,507	5.09
18	Indra Prosperous	265	461	2.305	5.00
19	Fairy Godmother	1.237	1,426	6,873	4.82
20	Ulim Crossroads	0	0	0	0
21	Opium	50	65	338	5.20
22	Birem Bayeun	190	273	1,392	5.10
23	Happy Land	415	457	2.017	4.41
24	Great River	1,048	1,447	7.235	5.00
	East Aceh	14.925	21212	103,811	4.89

Source: Department of Agriculture, Food Crops and Horticulture, East Aceh Regency (2021)

East Aceh Regency is one of the potential areas for rice fields in Aceh province. Rice field farming activities in East Aceh Regency still use rain-fed irrigation systems. The following will present the area of irrigated and non-irrigated (rain-fed) rice fields. Seen in table 3.

Table 3. Area of Rice Fields (Technical, Semi-Technical, Simple, Non-PU, Rain-Fed) in East Aceh Regency.

No	Subdistrict	Area of Paddy Fields (Ha)	Irrigation System				
			Technical	Semi Technical	Simple	Non-PU	Rainwater Tank
1	All-round	371	-	46	11	314	-
2	Clear Crossroads	83	-	-	-	40	43
3	Peunaron	677	-	-	170	-	507
4	Birem Bayeun	308	-	133	85	20	70
5	Region Happy	214	-	-	30	20	164
6	Great River	644	-	-	150	-	494
7	Peureulak	2420	-	-	1263	100	1057
8	East Peureulak	414	-	55	-	10	349
9	West Peureulak	1667	-	-	1327	-	340

Suhartini¹, Jamilah², Setia Budi³

10	Ranto Peureulak	1559	-	-	660	275	624
11	Idi Rayeuk	439	-	191	-	-	248
12	The Peudawa	672	-	-	57	-	615
13	Nature Band	484	-	231	-	-	253
14	Idi Tunong	520	-	188	150	-	182
15	The Great Journey	277	-	25	15	32	205
16	East Idi	248	-	-	-	-	248
17	Darul Aman	852	-	55	23	180	594
18	Peace be upon you	1063	-	221	257	-	585
19	Darul Falah	279	-	-	59	88	132
20	Julok	785	-	35	153	15	582
21	Indra Prosperous	287	-	162	15	-	110
22	Fairy Godmother	1648	626	-	183	-	839
23	Ulim Crossroads	1361	1116	-	245	-	-
24	Opium	2181	2022	-	134	-	25
	East Aceh	19453	3764	1342	4987	1094	8266

Source: Department of Agriculture, Food Crops and Horticulture, East Aceh Regency (2021)

Table 3 above shows that Ranto Peureulak District is one of the areas with the third largest rain-fed rice fields in East Aceh Regency, which is 624 hectares. This is because Ranto Peureulak District does not have a reservoir or large river flow whose water can be channeled to residents' rice fields. The rain-fed rice commodity can be found in several villages spread widely in Ranto Peureulak District. The existence of rainfed lowland rice plants in Ranto Peureulak District is supported by the availability of lowland rice resources which have an impact on lowland rice cultivation patterns managed by farmers in several villages that produce rainfed lowland rice, one of which is Gampong Seuleumak Muda, Gampong Alue Batee and Gampong Blang Barom. Below we will present the area of rice fields according to the type of irrigation in each Gampong in Ranto Peureulak District, as shown in table 4.

Table 4. Area of Rice Fields According to Type of Irrigation in Each Village in Ranto Peureulak District.

Village	Irrigation			Rainwater Tank	Amount
	Technical	Semi Technical	Pumping		
(1)	(2)	(3)	(4)	(5)	(6)
Beurandang	0	0	40	40	80
Alue	0	0	0	0	0
Geunteng					
Client	0	0	174	0	174
Looks	0	0	80	160	240
Paya Palas	0	0	50	120	170
Alue Batee	0	0	35	115	150
Old Bhom	0	0	180	12	192
White Passion	0	0	25	0	25
Two Alue	0	0	26	0	26
Nutmeg	0	0	0	0	0
Bouquet					
Payong Point	0	0	50	70	120
The Sun	0	0	80	200	280

Suhartini¹, Jamilah², Setia Budi³

Pertamina	0	0	0	0	0
Blang Barom	0	0	40	10	50
Island of	0	0	78	0	87
Blang					
Seuneubok	0	0	94	0	94
Johan					
Unou Bay	0	0	153	0	153
Seuneubok	0	0	40	63	103
Baro					
Deep	0	0	0	50	50
Seuneubok					
Young	0	0	0	230	230
Seuleumak					
Ie's Eyes	0	0	0	25	25
Alue Udep	0	0	0	156	156
The Great	0	0	160	269	429
World					
Amount	0	0	1,314	1,520	1,834

Source: Agricultural Extension Center (BPP) Ranto Peureulak District 2021

Table 4 above shows that Gampong Seuleumak Muda has a rain-fed rice field area of 230 hectares. Gampong Alue Batee has a rice field area of 150 hectares with a rain-fed rice field area of 115 hectares and a rice field area with pump irrigation of 30 hectares. Gampong Blang Barom has a rice field area of 50 hectares with a rain-fed rice field area of 10 hectares and a rice field area with pump irrigation of 40 hectares. This is because the village does not have a reservoir to accommodate the large amount of water to be distributed to the rice fields. The people in the village generally prefer to do rain-fed rice farming to increase income and meet the needs of life, but on the other hand household income also comes from the results of horticultural crops and plantation crops such as areca nut, coconut, oil palm, rubber and cocoa. In addition to relying on the agricultural sector to meet household needs, the income of some villagers also comes from outside the agricultural sector such as working as daily laborers, self-employed, traders and so on. The community in the village has several problems in running rain-fed rice farming businesses such as failure in the farming process due to drought when entering the rice harvest season so that farmers do not get big profits, then when the planting season arrives the rain-fed rice fields experience drought so that farmers have to wait for rain to fall so that the rice farming process can be carried out, and the limited capital experienced by rain-fed rice farmers, lack of activities that support agriculture such as extension.

LITERATURE REVIEW

The Concept of Contribution

According to Wulandari, et al. (2016) contribution is a contribution from a business to the total income received by the community, measured by the percentage of each source of income to the total income of the community which comes from various types of activities. Contribution can also be interpreted as the role, input, ideas and behavior carried out by individuals.

Farming Business Concept

According to Wanda (2015), agricultural science is a science that studies how to determine, organize and coordinate the use of resources efficiently so that the income obtained by farmers is higher.

Rainfed Lowland Rice Farming

Rice is the most basic human need, so the availability of food, especially rice for the community must always be guaranteed. By fulfilling the community's food needs, the community will get a peaceful life and will be more able to play a role in getting a peaceful life and will be more able to play a role in development.(Johan, 2013).

Farming Costs

Costs are all expenses expressed in money that are needed to produce a product in a production period. The cost value is expressed in money, which includes costs are Production facilities that are used up such as seeds, fertilizers, pesticides, fuel, capital interest, in planting such as land rent in the form of money or taxes, irrigation fees, estimated use of costs if the land used is owned. Costs of durable production equipment, such as buildings, tools and equipment, which are in the form of depreciation. Labor from the farmer himself and his family members, permanent labor or permanent salaried labor Other unexpected costs. Farming costs can be divided into two, namely: fixed costs and variable costs.(Suratiyah, 2015).

Farm Income

Income is divided into two, namely gross income and net income. Gross income (receipts) is the total production value of a business in a certain period of time, whether sold, consumed by the seller's household, and stored in the warehouse. While net income is the difference between the gross income of the business and production costs such as labor wages, purchase of raw materials, depreciation used by the business. Family income obtained comes from net income plus family labor costs(Ma'ruf, 2017).

Household Income

The concept of household refers to the economic meaning of the family unit, such as how the family manages the family's economic activities, division of labor and function, then in the form of the amount of income earned or consumption and production and services produced. If the family is getting bigger, it opens up opportunities for income earners to contribute to family income. The contribution of income from one type of activity to total household income depends on the productivity of the production factors used from the type of activity concerned.

METHOD

Location, Objects and Scope of Research

This research was carried out in Gampong Seuleumak Muda, Gampong Alue Batee and Gampong Blang Barom, Ranto Peureulak District, East Aceh Regency, this location was chosen based on certain criteria (Purposive Sampling), namely based on the size of the rainfed rice fields. The scope of the research is twofold, namely analyzing the income of rainfed lowland rice farmers and analyzing the contribution of rainfed lowland rice farming to household income in Ranto Peureulak District, East Aceh Regency. The research object is rainfed rice farmers.

Data Types and Sources

In this study, the author uses a quantitative descriptive research type, because the data obtained will be in the form of numbers, from the numbers obtained, it will be analyzed further in data analysis. Data is raw material that must be processed to produce information, both quantitative and qualitative, which show facts. Based on its source, data is divided into two, namely:

a. Primary Data

Primary data is data obtained from interviews conducted using questionnaires on all samples in the study. The questionnaire is a data collection technique carried out by providing a set of questions or written statements to rain-fed rice farmers in Gampong Seuleumak Muda, Gampong Alue Batee and Gampong Blang Barom, Ranto Peureulak District, East Aceh Regency.

Suhartini¹, Jamilah², Setia Budi³

b. Secondary Data

Secondary data is data collected by researchers to support primary data. Secondary data is obtained from related agencies, namely the Department of Agriculture, BPS, BPP, and written sources such as books, journals, and other related literature.

The techniques that will be used in data collection are:

- a) Observation, used as one of the initial activities in research, observation is the systematic observation and recording of research objects due to the presence of a symptom or movement in the research object.
- b) Interviews are a way to obtain data by asking other subjects directly who are closely related to the main object using a list of questions (Questionnaire).
- c) Documentation is a method of collecting data on things or variables in the form of written notes such as transcripts, books, newspapers, photos and documents regarding the description of the research object.

Population and Sample

The population of this study was all farmers who cultivate rain-fed rice plants. Sampling in this study was carried out using the Arikunto (2006) approach, namely if the population is more than 100, then the sample can be taken as much as 10-15% and 20-25% of the existing population. Sampling in this study was 25% of the existing population, because the population was 195 people, so the sample used in this study was 49 people. The clarity regarding the number of population and samples can be seen in Table 5 below.

Table 5. Population and Sample Size

No	Village	Population	Sample
1	Young Seuleumak	100	25
2	Alue Batee	75	19
3	Blang Barom	20	5
Amount		195	49

The sampling method used was simple random sampling. (*Simple Random Sampling*) from the population in the village with the aim that all populations have an equal opportunity to be selected as samples.

Data Analysis Methods

This study uses a qualitative descriptive analysis method, this is used to find out all information related to farmers, then for the results of income calculations are analyzed quantitatively descriptively to get a clear picture of the problem being studied, then this descriptive analysis is also used to determine the contribution of rice farming to family income in percentage units. The data analysis techniques used in this study are as follows:

Analysis of Costs, Income and Profits of Farming Business

a. Production cost

Formula: $TC = TFC + TVC$

Information :

TC = Total Cost

TFC = Total Fixed Cost

TVC = Total Variable Cost

b. Gross Farm Income (Receipts)

Formula: $TR = Q \times P$

Information :

TR = Total Revenue (total income)

P = Price of paddy in rain-fed rice farming

Q = Amount of paddy production in rainfed lowland rice farming

c. Net Income (Farm Profit)

Suhartini¹, Jamilah², Setia Budi³

Formula : $I = TR - TC$

Information :

I = Income

TR = Total Revenue

TC = Total Cost (Total cost of rice production)

To find out the total income of a farmer's household from all sources of income, it can be calculated using the following formula:

$$I_{total} = I_1 + I_2 + I_3$$

Information:

Itotal = Total income of farmer households

RESULTS AND DISCUSSION

Analysis of Income from Rainfed Lowland Rice Farming

Fixed Costs

Table 6. Distribution of Fixed Costs of Rainfed Lowland Rice Farming Based on Land Use Status

No	Type of Fee	Total Cost		
		Land Owner Farmers (Rp/Ha)	Sharecroppers (Rp/Ha)	Land Tenant Farmers (Rp/Ha)
(1)	(2)	(6)	(7)	(8)
1.	Hoe	24,612.0	33,653.8	23,333.3
2.	Machete	17,984.1	24,038.4	16,666.6
3.	Harrow	19,237.0	33,653.8	23,333.3
4.	Sickle	11,962.4	19,230.7	13,333.3
5.	Spray Tool	866,472.6	1,346,153.7	1,333,333.3
6.	Land	4,195,926.3	0	0
Total number		5,136,194.4	1,456,730.4	1,409,999.8

Source: Primary Data (Processed), 2021

Based on Table6 above shows that the average fixed cost incurred by landowner farmers in one planting season is Rp5,136,194.400/Ha, and the costs incurred by sharecroppers and tenant farmers are relatively lower, namely Rp1,456,730.400/Ha and Rp1,409,999.900/Ha. This is because the amount of land owned by sharecroppers is less when compared to farmers with their own land. For the equipment used in rainfed lowland rice farming, each has a relatively long economic life, namely 3 years, some even up to 4 years depending on the type of equipment used in rainfed lowland rice farming.

Variable Costs

Table 7. Distribution of Variable Costs of Rainfed Lowland Rice Farming Based on Land Use Status

No	Type of Fee	Total Cost		
		Farmer Land Owner (Rp/Ha)	Sharecroppers (Rp/Ha)	Land Tenant Farmers (Rp/Ha)
(1)	(2)	(6)	(8)	(10)
1.	Seed	562,451.5	562,500	135,000
2.	Fertilizer	3,141,125.1	3,150,000	756,000
3.	Pesticide	462,979.3	666.665	159,999.6
4.	Planting Costs	2,501,212.4	2,500,000	600,000
5.	Harvest Costs	2,812,681.9	2,750,000	1,230,000

Suhartini¹, Jamilah², Setia Budi³

6.	Land Processing Costs	1,684,529.6	1,814,102.6	420,000
7.	Shipping Costs	706,838.0	708,333.3	170,000
8.	Land Rental	0	0	1,000,000
Total number		11,871,817.8	12,151,600.9	4,470,999.6

Source: Primary Data (Processed), 2021

Based on Table 7 above, it shows that the variable costs incurred by sharecroppers are greater than the variable costs incurred by landowners and landless farmers. The fixed costs incurred by sharecroppers are Rp.12,151,600.90/ha landowner farmers amounted to Rp11,871,817.8/ha and landless farmers amounted to Rp4,470,999.6/ha. The largest cost incurred by landowner farmers and tenant farmers is the cost of fertilization during the rainfed rice farming process. While the largest cost incurred by landless farmers is the harvest cost, this is because tenant farmers and landless farmers harvest by manually cutting rice using a sickle and grinding rice into grain using a rice grinding machine while landowner farmers harvest using a rice cutting machine which can also grind the rice into grain. On the other hand The high variable costs are caused by the high prices of production facilities among farmers.

Total Production Cost of Rainfed Lowland Rice Farming

Table 8. Summary of Rainfed Lowland Rice Farming Costs Based on Land Use Status

No	Types of Production Costs	Farmer Land Owner (Rp/Ha)	Sharecropper (Rp/Ha)	Land Tenant Farmers (Rp)
(1)	(2)	(3)	(4)	(5)
1.	Fixed Costs	5,136,194.4	1,456,730.4	1,410,999.8
2.	Variable Costs	11,871,817.8	12,151,600.9	4,470,999.6
3.	Revenue Sharing Fee	0	7,031,250	0
Total number		17,008,012.2	20,639,581.3	5,881,999.4

Source: Primary Data (Processed), 2021

Based on Table 8 above, it shows that the average The cost of rainfed lowland rice farming in one planting season incurred by sharecroppers is greater when compared to landowners and landless farmers, which is Rp20,639,581.300/ha, while the cost of farming incurred by landowners is Rp17,008,012.200/ha and landless farmers is Rp5,881,999.400/ha. This is due to the cost of sharing the results from sharecroppers with landowners, which is 25% of gross income.

Income from Rainfed Lowland Rice Farming

Table 9. Average Production, Price, Gross Income (Revenue) and Net Income of Rainfed Lowland Rice Farming Based on Land Use Status

No	Description	Farmer Land Owner (Rp/Ha)	Sharecrop pers (Rp/Ha)	Tenant Farmers (Ha)
(1)	(2)	(3)	(4)	(5)
1.	Production (Kg)	6,201.5	6,250	1,500
2.	Price (Rp/Kg)	4,500	4,500	4,500
3.	Farm Business Income (Rp)	27,906,765.3	28,125,000	6,500,000
4.	Net Farming Income (Rp)	10,898,753.1	7,485,418.6	868,000.6

Source: Primary Data (Processed), 2021

Suhartini¹, Jamilah², Setia Budi³

Based on Table 9 above, it shows that the net income of farmers with self-owned land status is Rp10,898,753.1,00, the net income of sharecroppers is Rp7,485,418.6,00 and the net income of land-renting farmers is Rp868,000.6,00. The net income received by land-owning farmers is greater and more profitable when compared to sharecroppers and land-renting farmers. This is because the land owned by land-owning farmers tends to be larger than sharecroppers and land-renting farmers so that the income received and costs incurred are greater.

Other Income

a. Income from Non-Rice Farming Rainfed Wetlands

Non-rice agricultural income from rain-fed lowland rice fields is the net income received by farmers from the plantation, horticultural and secondary crops sectors in a one-month period. For non-rice agricultural income from rain-fed lowland rice fields, the explanation can be seen in Table10 following:

Table 10. Income Level of Rainfed Non-Rice Lowland Agriculture

No	Total Income (Rp/Month)	Frequency (Soul)	Percentage (%)
(1)	(2)	(3)	(4)
1.	No Income	32	65.3
2.	<1,000,000	5	10.2
3.	>1,000,000	12	24.5
Total number		49	100.0

Source: Primary Data (Processed), 2021

Based on Table 10 above, it shows that the highest percentage of non-rice agricultural income from rain-fed lowland rice fields is included in the category of no income, the high percentage is because several farmers in Gampong Seuleumak Muda, Gampong Alue Batee and Gampong Blang Barom, Ranto Peureulak District do not have agricultural land, they only depend on rain-fed lowland rice farming and work outside the agricultural sector. On the other hand, several farmers who have land, they use the land to cultivate horticultural crops, secondary crops and plantation crops with the hope that the results obtained will be income for the household economy.

b. Non-Agricultural Income

Non-agricultural income is income obtained from outside the agricultural sector such as working as laborers, village officials, teachers, builders and so on which are calculated within a period of one month. For more details, see Table 11 following:

Table 11. Income Levels from Non-Agriculture

No	Total Income (Rp/Month)	Frequency (Soul)	Percentage (%)
(1)	(2)	(3)	(4)
1.	No income	0	0
2.	<1,250,000	6	12.2
3.	>1,250,000	43	87.7
Total number		49	100.0

Source: Primary Data (Processed), 2021

Table 11 above shows that the average farmer in Gampong Seuleumak Muda, Gampong Alue Batee and Gampong Blang Barom, Ranto Peureulak District, in addition to depending on natural resources for their livelihoods, is also a farmer. Almost all farmers have side jobs. This is done because the production process of rain-fed rice farming is relatively long, which is 4 months, which requires farmers to find side jobs to meet their daily needs.

Suhartini¹, Jamilah², Setia Budi³

Total Household Income

Table 12. Distribution of Total Household Income

o	Total Income (Rp/Month)	Farmer Land Owner (Soul)	Sharecropper (Soul)	Tenant Farmers (Souls)
	(2)	(3)	(4)	(5)
1)				
	< 1,500,000	0	0	0
.	1,500,000 –	0	1	0
.	2,500,000			
.	> 2,500,000 –	4	3	0
.	3,500,000			
.	> 3,500,000	38	2	1
.				
	Total number	42	6	1

Source: Primary Data (Processed), 2021

Based on Table 12 above, it shows that the total income of farmer families in Gampong Seuleumak Muda, Gampong Alue Batee and Gampong Blang Barom, Ranto Peureulak District with the status of owner farmers is included in the very high income category. While for sharecroppers, the average total household income received is included in the high income category. In addition to being sourced from income from rain-fed rice farming, farmers' income is also supported by income from the non-rain-fed rice farming sector and non-agricultural income.

Contribution of Rainfed Lowland Rice Farming to Household Income

Contribution is the contribution of business or work given to the total household income. According to Sari (2017) contributions can be classified into three categories, namely as follows:

Table 13. Contribution Level Classification

Classification	Category
(2)	(3)
0 – 33.33%	Low
33.3 – 66.6%	Currently
.	
>66.6%	Tall

Source: Sari (2017)

Table 13 above shows that the size of the contribution given to the business or work is a measure of the success of the work or business and is therefore a consideration for the future. In this study, total household income is calculated based on income from rain-fed lowland rice farming, non-rain-fed lowland rice farming income and non-agricultural income. For rain-fed lowland rice farming income, the average net income in one planting season will be divided by the production period of 3 months, because in this study the calculation of household income is calculated based on monthly income from all household business fields, both from the scope of agriculture and income from outside agriculture. Income components consist of income from husband, wife and children. One of the factors that influences the total income of farmer households is income from rain-fed lowland rice farming, the greater the income from rain-fed lowland rice farming, the greater the total income of the farmer household. Conversely, if the income of rain-fed lowland rice farmers is low, farmers will try to find other jobs to help meet household needs. To calculate the contribution of rain-fed lowland rice farming, the contribution of non-rain-fed lowland rice farming

Suhartini¹, Jamilah², Setia Budi³

income, the contribution of non-agricultural income to total household income using the following formula: To find out how big the contribution of rain-fed lowland rice, the contribution of non-rain-fed lowland rice agriculture, and the contribution of non-agriculture (land-owning farmers) is, it is explained in Table 14 below:

Table 14. Levels of Income Contribution from Rainfed Lowland Rice Farming, Contribution from Rainfed Non-Rice Farming and Non-Agricultural Contribution (Farmers Who Own the Land)

No	Source of Income	Average Income (Rp/Month)	Percentage (%)
(1)	(2)	(3)	(4)
1.	Income from Rainfed Lowland Rice Farming	2,724,930.7	34.5
2.	Non-Rice Agricultural Income from Rainfed Lowland Areas	1,735,238.1	22.0
3.	Non-Agricultural Income	3,427,380.9	43.5
Total Revenue		7,887,549.7	100.0

Source: Primary Data (Processed), 2021

Based on Table 14 above shows that the contribution to the income of rain-fed rice farming businesses to total household income is in the moderate category with a percentage of 34.5%. Then the contribution from non-agricultural income is also in the moderate category with a percentage of 43.5% only the contribution of non-rice agricultural income from rain-fed lowland rice fields is included in the low category with a percentage of 22.0%. Then for the total family income received by farmers, the average is Rp7,887,549.700/month, which is included in the very high income category. To find out how big the contribution of rain-fed lowland rice, the contribution of non-rain-fed lowland rice agriculture, and the contribution of non-agriculture (tenant farmers) is explained in Table 15 below:

Table 15. Levels of Contribution of Rainfed Lowland Rice Farming, Contribution of Rainfed Non-Rice Farming and Non-Agricultural Contribution (Cultivator Farmers).

No	Source of Income	Average Income (Rp/Month)	Percentage (%)
(1)	(2)	(3)	(4)
1.	Income from Rainfed Lowland Rice Farming	1,871,354.6	40.1
2.	Non-Rice Agricultural Income from Rainfed Lowland Areas	258,333.3	5.5
3.	Non-Agricultural Income	2,541,666.6	54.4
Total Revenue		4,671,354.6	100.0

Source: Primary Data (Processed), 2021

Based on Table 15 above shows that the contribution to the income of rain-fed rice farming (farmers) to the total household income is in the medium category with a percentage of 40.1%. Then the contribution of non-agricultural income is also in the medium category with a percentage of 54.4% only the contribution of non-rain-fed rice farming income is in the low category, which is only 5.5%. Then for the total household income received by farmers, the average is Rp4,671,354.600/month falls into the very high income category. To find out how big the contribution of rain-fed lowland rice, the contribution of non-rain-fed lowland rice agriculture, and the contribution of non-agriculture (tenant farmers) is explained in Table 16 below:

Suhartini¹, Jamilah², Setia Budi³

Table 16. Level of Contribution of Rainfed Lowland Rice Farming, Contribution of Rainfed Non-Rice Farming and Non-Agricultural Contribution (farmers renting land).

No	Source of Income	Average Income (Rp/Month)	Percentage (%)
(1)	(2)	(3)	(4)
1.	Income from Rainfed Lowland Rice Farming	217,000.2	6.7
2.	Non-Rice Agricultural Income from Rainfed Lowland Areas	0	0
3.	Non-Agricultural Income	3,000,000	93.3
Total Revenue		3,217,000.2	100.0

Source: Primary Data (Processed), 2021

Based on Table 16 above shows that the contribution to the income of rain-fed rice farming (land tenant farmers) to the total household income is in the low category with a percentage of 6.7%. The contribution of non-agricultural income is in the high category with a percentage of 93.3%. Then for the total household income received by sharecroppers, the average is Rp3,217,000.200/month, which is included in the high-income category. Based on the results of the analysis carried out, the contribution and income of landowners are more profitable compared to sharecroppers and land tenants. This is because the land used is their own land so that landowners do not incur other costs from net income. While sharecroppers (profit sharing) incur a profit sharing cost of 25% of gross income and land tenants incur land rental costs which are paid at the beginning or after harvest depending on the agreement between the sharecropper and the land owner. From the results of the analysis carried out, it can be seen that the contribution and income obtained by owner farmers or sharecroppers are not enough to meet the needs of their families, so to meet their needs, farmers use their free time while waiting for the harvest season by looking for work outside of rain-fed rice cultivation and outside the agricultural sector.

CONCLUSION

Based on the results of research conducted in Ranto Peureulak District (Seuleumak Muda Village, Alue Bate Village and Blang Barom Village), it can be concluded that:

- The net income of farmers from rain-fed rice farming by landowners is greater and more profitable when compared to sharecroppers and tenant farmers. The net income of rain-fed rice farming by landowners is amounting to Rp. 10,898,753.1.00 in one production, while the sharecroppers amounted to Rp.7,485,418.6,00 and land renting farmers amounting to Rp868,000.6,00. If calculated the average monthly income of rain-fed rice farming for land-owning farmers is Rp. 2,724,930.7,00 while the sharecroppers' income is Rp.1,871,354.600 and farmers renting land amounting to Rp. 217,000.200.
- The contribution of income from rain-fed rice farming to the total income of land-owning farmers' households is in the medium category with a percentage of 34.5%. Meanwhile, the contribution of income from rain-fed rice farming to the income of tenant farmers and tenant farmers is in the low category, namely 40.1% and 6.7%.

SUGGESTION

- Farmer need to find alternative jobs/other businesses to utilize free time while waiting for harvest time to increase the income of farming households.
- Local extension agencies should provide supporting facilities such as ponds to collect large amounts of rainwater so that the water can be distributed to residents' rice fields.

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Suhartini¹, Jamilah², Setia Budi³

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