

Cost Study and the Role of Farmer Group In Rice Field Farming In Anjir Serapat Baru 1 Village, Anjir Muara District Barito Kuala Regency

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Abstract:

This study aims to determine the role of farmer groups and income in lowland rice farming in AnjirSerapatBaru Village 1. The research period starts from April to November 2021. This study was sourced from primary and secondary data using a survei method, sampling usang a porpositive sampling method, the number of respondents was 20 people from 80 farmers in AnjirSerapatBaru Village 1. The result of the research in AnjirSerapatBaru 1 Village, AnjirMuara District, Barito Kuala Regency, showed that the role of farmer groups based on 3 function, namely as a learning class was at a medium level, as a vehicle for cooperation at a high level, and as a production unit at a high level, so that it can be concluded that the role of farmer groups is going well. The average production is 156.300 kg. The total revenue is Rp. 1.015.950.000 with an average revenue of Rp. 50,797,500 and the average revenue per/ha is Rp. 30.786.363. The total income of farmers is Rp. 798,245,125 with an average income of Rp. 39.912.256. The total cost incurred in lowland rice farming Rp. 287.304.875 with an average of Rp. 14.365.243.75.

Key Word: Rice Farming ; Cost; Role; Farmer Group; Income

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I. Introduction

Barito Kuala is one of the regencies in South Kalimantan where almost all of its population has a livelihood as farmers, so it is an agricultural center in South Kalimantan as the largest contributor to rice production. Based on the Central Statistics Agency, Barito Kuala Regency has a harvest area in 2020 of 289.84 thousand ha, while the total rice production is 1.15 million tons. If converted into rice, rice production in Tahun 2020 is 677.10 thousand tons. AnjirSerapatBaru 1 Village which is one of the 5 villages in AnjirMuara District, Barito Kuala Regency, is the village that has the most land compared to other villages, which is 940 ha. AnjirSerapatBaru 1 village has 10 farmer groups.

Rice asa commodity p a ngan main which has a high strategic value. This effort is inseparable from the important role of the government in providing assistance to farmers. One of the ways the government helps agricultural development is through the establishment of institutions or social groups within the agricultural community. The role of agricultural institutions for farmers is to provide what facilities are needed by farmers (means or means of production), increase the bargaining position in gap activities and losses experienced by farmers (Pradana, 2013). The institution referred to in production farming is called a farmer group. Physiologically, farmer groups are formed to solve problems faced by farmers that cannot be overcome individually. Sadjad (2010) revealed that the formation of farmer groups is the embodiment of *consolidated agriculture*, so that it can produce optimally and efficiently.

The purpose of the formation of farmer groups is to improve and develop the abilities of farmers and their families as subjects of a group approach, in order to play a more role in development. Agricultural activities in this case will be seen from the better growth in terms of increasing agricultural productivity which in turn will increase farmers' incomes in order to support the creation of better welfare for farmers and families, but at this time there are still many people who think that farmer groups play less of a role in increasing income for farmers. The development of farmer groups needs to be carried out more intensively, directed and planned, so as to increase their participation and function. Based on the description above, research is needed on "The Role of Farmer Groups in Paddy Rice Farming in AnjirSerapatBaru1 VillageAnjirMuara District, Barito Kuala Regency. This research aims to know therole of farmer groups in paddy rice farming in AnjirSerapatBaru 1 Village and calculate the cost, receipts, and income of paddy rice farming in AnjirSerapatBaru 1 Village.

II. Material And Methods

Study Sample Design: Purposive sampling

Study Location: This research was conducted in AnjirSerapatBaru1 Village1, AnjirMuara District

Study Duration: April to November 2021.

Sample size: 20 respondent

Subjects & selection method: sampling method seen from active farmer groups and has been around for about 10 years. There are 2 farmer groups that are used as samples. The number of each farmer group that is part of one group is 40 people, because the 2 farmer groups that are sampled so the total is all 80 people, then 25% will be taken as a sample.

Type and Data Source: Primary and secondary data

Data analysis:

The data analysis used to identify problems is descriptive qualitative using the likert scale and using income theory. This questionnaire revealed data on the role of farmer groups in increasing the income of paddy rice farming businesses. The level of role of farmer groups is measured using three indicators obtained from the level of ability of farmer groups in the development of farmer groups. The level of ability of the farmer group is measured by three ability benchmarks, namely:

1. Farmer group as a learning class
 2. Farmer groups as a vehicle for cooperation
 3. Farmer group as a unit of production
- The use of the three indicators of the ability to measure the level of role of the farmer group using a likert scale, namely describing the three indicators into several question items / statements that have been compiled in the questionnaire and each question is given a score according to the choice of the respondent (Sugiyono, 2016)

The second goal is to use financial analysis. The total cost can be calculated using the formula, which is:

$$TC = TCe + TCi$$

Information:

TC : Total cost

TCe : Total explicit cost

TCi : Total implicit cost

Acceptance can be calculated using the formula, namely:

$$TR = P \times Q$$

Information:

TR: Total Revenue

P: Product price

Q: Number of products

Revenue can be calculated using the formula, which is:

$$I = TR - TCe$$

Information:

I: Income

TR: Total Revenue

TCe: Total explicit cost

III. Resultand Discussion

A. Identification of Respondent Farmers

1. age

Based on the results of the field survey, it can be described that the age of respondent farmers in AnjirSerapatBaru Village 1, the average age of respondent farmers in AnjirSerapatBaru Village 1 is 41-40 years old. The age of the oldest respondent farmer is 60 years old and the age of the youngest respondent farmer is 30 years.

2. Education Level

The education level of respondents in AnjirSerapatBaru Village 1 on average had the last education was elementary school (Elementary School) as many as 10 people with 50% presentations, junior high schools as many as 2 people with 10% presentations, high schools as many as 1 person with 5% presentations and 7 non-school people with 35 presentations.

B. The Role of Farmer Groups

The role of farmer groups in increasing the income of paddy rice farming businesses for farmers to exchange information to increase their production helps each other in these agricultural activities.

Based on (Deptan, 2007) farmer groups carry out their functions there are 3, namely as follows:

1. Wadahbelajar, As a learning forum, namely farmers in groups to learn to improve knowledge, skills and attitudes (PKS) as well as the growth and development of independence in farming.
2. Wahana cooperation, as a vehicle for cooperation, namely farmers in groups in order to strengthen cooperation between fellow members in the group and other parties. The hope is that farming is more efficient and better able to face threats, challenges and obstacles, and disturbances.
3. Production units, as production units, namely farming businesses carried out by each member of the farmer group, as a whole must be viewed as a business unit that can be developed to achieve economies of scale, both in terms of quality, quantity and continuity.

1. The Role of Farmer Groups as a Learning Class

The role of farmer groups as learning classes is a learning forum for farmer groups / members to improve skills, knowledge, attitudes, as well as grow and develop independence in farming so that it will increase productivity, increase income and prosper life (Abbas, 2009).

The activities of the farmer group in AnjirSerapatBaru Village 1 as a learning class, namely farmers get new information and knowledge provided by field officers or local village PPL in regular monthly meetings, this meeting usually discusses the content of fertilizers, pesticides and how to deal with pests and others. To find out the role of farmer groups as learning classes can be seen in Table 9.

Table 1. The Role of Farmer Groups as a Learning Class in AnjirSerapatBaru Village 1

Categories of The Role of Farmer Groups	Score	Number (of people)	Percentage (%)
Low	1-2	5	25
Keep	3	12	60
Tall	4-5	3	15
Sum		20	100

Based on Table 1 , the role of the farmer group as a learning class in the first place is at a score of 3 which amounts to 12 people with a percentage of 60%, the second place is in a score of 1-2 which is 5 people with a percentage of 25%, and the last one is at a score of 4-5 which amounts to 3 people with a percentage of 15%. The role of the farmer group as a learning class in AnjirSerapatBaru Village 1 is at the moderate category level, it can be said that the farmer group has carried out its role quite well such as planning and preparing learning needs, fostering the discipline and motivation of members, the learning process and meetings are conducive and orderly, expressing and understanding the wishes, opinions and problems faced, formulating collective agreements and carrying out periodic meetings, in accordance with the fact that in the role of their teaching class it is just that the farmer group as a learning class is further enhanced in all activities to achieve at a high level that is as the role they carry out. The role of farmer groups as a learning class in AnjirSerapatBaru Village 1 is different from Lailani's research (2020) stating that the high category means good, where farmers consider farmer groups as a learning class in increasing income around farming.

2. The Role of Farmer Groups as a Vehicle for Cooperation

The role of farmer groups as a vehicle for cooperation is a place to increase cooperation, be it between fellow members of the farmer group or with other farmer groups and other parties, so that farming will be efficient, able to face threats and challenges (Abbas, 2009).

The activities of farmer groups in AnjirSerapatBaru Village 1 act as a vehicle for cooperation, namely, farmer groups in AnjirSerapat Village only 1 cooperate with the local agricultural office to get farmer cards, this farmer card serves to get subsidized fertilizer that can be taken at agricultural shops that have collaborated with the department and farmer groups. To find out the role of farmer groups as a vehicle for cooperation can be seen in Table 10.

Table 2. The Role of Farmer Groups as a Vehicle for Cooperation in AnjirSerapatBaru Village 1

Categories of The Role of Farmer Groups	Score	Number (of people)	Percentage (%)
Low	1-2	3	15
Keep	3	7	35
Tall	4-5	10	50
Sum		20	100

Based on Table 2 , it shows that the role of farmer groups as a vehicle for cooperation in the first place is at a score of 4-5 which amounts to 10 people with a percentage of 50%, the second place is in a score of 3

which is 7 people with a percentage of 35%, and the last one is at a score of 1-2 which is 3 people with a percentage of 15%. The role of farmer groups as a vehicle for cooperation in AnjirSerapatBaru Village 1 is at a high category level which means that farmer groups have carried out their roles well as the roles they carry out such as creating an atmosphere of openness in expressing opinions, organizing and carrying out the division of tasks, developing discipline and a sense of responsibility, planning and deliberation, carrying out the cooperation of providers of facilities and services, carrying out environmental conservation, establishing cooperation / partnerships with the marketing of products and so on.

3. The Role of Farmer Groups as Production Units

The role of the farmer group as a production unit, the farming business of each group member is a unit of business developed to reach the economic level while maintaining the quality, quantity and durability of production (Abbas, 2009).

The activities of farmer groups in AnjirSerapatBaru Village 1 act as production units, namely, farmer groups in AnjirSerapatBaru Village 1 collaborate with business partners and improve or develop farmer group businesses to achieve the production targets that have been set. To find out the role of farmer groups as production units can be seen in Table 3.

Table 3. The Role of Farmer Groups as Production Units in AnjirSerapatBaru Village 1

Categories of The Role of Farmer Groups	Score	Number (of people)	Percentage (%)
Low	1-2	4	20
Keep	3	7	35
Tall	4-5	9	45
Sum		20	100

Based on Table 3 , it shows that the role of the farmer group as a production unit in the first order is at a score of 4-5 which amounts to 9 people with a percentage of 45%, the second place is in a score of 3 which amounts to 7 people with a percentage of 35%, and the last one is at a score of 1-2 which amounts to 4 people with a percentage of 20%. The role of farmer groups as production units in AnjirSerapatBaru Village 1 is at a high category level, which means that the role of farmer groups has been running well according to their roles such as collaborating with farming partnerships, evaluating joint activities and group needs plans, increasing the sustainability of productivity and sustainability of resources and the environment, managing administration properly.

The Farmer Group has a good role as a production, collaboration and market unit to increase farming production (score 2.3-2.6), but haven't much impact to increase household food security. Rice production are 4.2 – 6.2 tons per hectare and household food security level are “low and marginal food secure” (mean score 4 and 6). Nevertheless, the role of Farmer Group showed a positive relationship with the level of household food security. So, it is necessary to increase the role of Farmer Group in order to increase income and household food security based on Farmer Group’s needs and potencies through facilitation of (a) seed and water/irrigation availability, (b) preparing organization rules (AD/ART) and (c) appropriate training and education of food and nutrition (Rahmadanih et al, 2018)

C. Account

1. Cost

Cost is the value expressed by money or economic inputs that are necessary and can be exchanged for income (Mulyadi, 2012). The costs incurred during local rice farming in AnjirSerapatBaru Village 1 AnjirMuara District, Barito Kuala Regency consist of explicit and implicit costs, these costs include: seed costs, fertilizer costs, medicine costs, labor costs in the family and outside the family and equipment depreciation costs. The total costs incurred in rice paddy farming in AnjirSerapatBaru 1 Village are Rp. 287,304,875 with an average cost of Rp. 14,365,243.75. Compared to Milfitri's research (2016) that the average total cost of farming paddy rice is Rp. 8,219,688.5. The value of the components of costs, receipts and income can be seen in Table 4.

Table 4. The value of the components of costs, receipts and income

No.	Description	Value (Rp)
1	a. Explicit Costs	10.885.243,75
	b. Implicit Costs	3.480.000
	Total Cost	14.365.243,75
2	Acceptance	50.797.500
3	Income	39.912.256

a. Explicit Costs

Explicit costs in this study are fertilizer costs, medicines, TKLK and equipment depreciation costs. For explicit cost averaging. The most incurred for explicit costs in paddy rice farming in AnjirSerapatBaru Village 1 is the cost of Out-of-Family Labor (TKLK), which is with an average of Rp. 8,467,500 which includes costs ranging from contractors, seeding, planting, fertilizing, weeding, drug administration, harvesting, drying to storage. The second largest cost is the cost of using fertilizer consisting of ponska fertilizer, NPK pelangi, urea, and SP 36 with an average cost of Rp. 1,694,000. Furthermore, for the cost of drugs consisting of gramoxons, basmilang, rat poison, and furadan with an average cost of Rp. 389,750. The smallest cost of farming paddy rice in AnjirSerapatBaru Village 1 is the depreciation cost of tools consisting of hoes, machetes, hands prayer, buckets, sacks and tarpaulins with an average cost of Rp. 324,993.75, the more land area used, some tools also increase in number used. With a total explicit average cost of Rp. 10,885,243.75. This result is in accordance with the literature, Kasim (2004) argues that explicit costs are real costs incurred by farmers in the implementation of farming.

b. **Implicit Costs**

Implicit Costs are costs that are not actually incurred but still have to be taken into account. The implicit costs in this study are land rental costs, TKDK costs, and seed costs. The implicit biaya on paddy rice farming in AnjirSerapatBaru Village 1 is the cost of land rental costs with an average cost of Rp. 3,142,857. Furthermore, the cost of Family Labor (TKDK) with an average cost of Rp.1,470,000 which includes seeding, planting, fertilizing, weeding, drug administration, drying to storage. For seed costs with an average cost of Rp. 340,000. With an implicit total average cost of Rp. 3,480,000. This result is in accordance with the literature, Kasim (2004) states that implicit costs are costs that are only taken into account as costs, but are not paid in real terms by farmers.

2. **Acceptance**

The revenue obtained in the rice paddy farming business in AnjirSerapatBaru 1 village is the result of total production multiplied by the selling price. The production obtained from the harvest during the study was as much as 1 time a year because local rice can only be harvested once a year. The amount of production obtained this year is not good so that production has decreased slightly. The selling price of rice in AnjirSerapatBaru Village 1 is Rp.6,500/Kg. Total receipts based on research results are Rp. 1,015,950,000 with an average receipt of Rp. 50,797,500 and an average receipt per person (per/ha) of Rp. 30,786,363. Compared to Supartama's research (2013) the total average receipts received by farmers were Rp. 18,017,250.00 with an average per person (per / ha) of Rp. 450,431.25. This result is in accordance with the literature, Soekartawi (2006) states that acceptance is a multiplication between the production obtained and the selling price.

3. **Income**

The calculation of income is obtained from the total receipts minus explicit costs. The total income of farmers in AnjirSerapatBaru Village 1 is Rp. 798,245,125 with an average income of Rp. 39,912,256. . this result is in accordance with the literature, Soekartawi (2006) states that income is the difference between explicit receipts and costs. farmers' income is quite large but only once a year. Compared to Ikbal's research (2014) that the total average income of respondent farmers was Rp. 12,625,470, which means that the average income of respondent farmers in AnjirSerapatBaru Village 1 is greater.

IV. Conclusion

1. The role of the farmer group is based on 3 functions, namely as a learning class at a medium level, as a vehicle for cooperation at a high level, and as a production unit at a high level, so it can be concluded that the role of the farmer group is going well.
2. The total costs incurred in paddy rice farming business amounted to Rp. 287,304,875 with an average of Rp. 14,365,243.75. The total receipt from 20 respondents was Rp. 1,015,950,000 with an average receipt of Rp. 50,797,500. And the total income of farmers in AnjirSerapatBaru Village 1 is Rp. 798,245,125 with an average income of Rp. 39,912,256.

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