

Response of Rice Farmer in Tidal Land to the Rice Farmer Insurance Program (RFIP) in Banjar Regency, South Kalimantan Province, Indonesia

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Abstract: This survey was carried out to analyze the characteristics of farmer's household participating on the rice farmer insurance program (RFIP) and to analyze response of rice farmer in the tidal land to the RFIP. The research used primary data from survey collected from 60 rice farmers in tidal land in Banjar regency, South Kalimantan and secondary data. The results showed that the education duration of respondents who participated in the program was 11.03 years, farmers who participated in the RFIP were more active in farmer group meetings, the average farming area for farmers participating in the RFIP was 1.23 ha, on average farming experience for respondents who participated in the RFIP was 18.47 years, rice farming income for farmers participating in the RFIP was Rp. 20,999,922, - / farming or Rp. 17,119,502, - / ha, the average risk of crop failure for RFIP participants amounted to 17.77%. Half of farmers responded positively about the RFIP while the remaining farmers responded negatively and very negatively.

Keywords: Farming Insurance, Rice Farmer, Tidal Land

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I. Introduction

Agriculture plays an important role in the economy of Indonesia. The majority of Indonesians work as farmer, so this happens in Banjar regency. This situation can be explained that its contribution (share) to the formation of Gross Regional Domestic Product (GRDP) in 2016 which reached 18.61 percent, the largest share in the formation of GRDP in Banjar Regency. (Statistics of Banjar Regency, 2017).

More directed agricultural development program is very important and necessary because national food security is an important part of national development (Pasaribu et al, 2010). Development in the agricultural sector needs to be accelerated as a result of the increasing number of populations, which means that there is also an increase in primary needs (food) of the population. Global climate change is a challenge in food security which can be said to be very worrying at this time. Global climate change greatly affects the agricultural process and results in a disturbed ecological balance. In aggregate based on calculations, the estimated consequences of global climate change cause total costs and risks equal to 5% of total world GDP per year (Sumaryanto and Nurmanaf, 2007)

Based on the challenges faced in the agricultural sector, it is necessary to take actions that are carried out systematically, planned and institutionalized in an effort to reduce the risk of losses that occur based on threats contained in the agricultural sector, namely agricultural insurance as an alternative instrument to minimize risk. RFIP is a program organized by the government in order to protect farmers from the threat of crop failure and to provide farmers new insights regarding the existence of farming protection systems.

In South Kalimantan, RFIP has been running for 3 years. The RFIP target in South Kalimantan in 2017 was 20,000 ha and 22.5 percent of the target was in the Banjar Regency area. The government targets 4,500 ha in Banjar Regency insured rice farming. However, on August 2017, the insured farming was 1,258.14 ha. This condition indicates that the awareness of rice farmers in Banjar Regency to participate in the RFIP is low. Whereas Banjar Regency is an area that is prone to flooding during the harvest season so that it is very vulnerable to failure, this reflects on 41.25 percent claims of RFIP are from Banjar Regency farmers.

The purpose of this study was to analyze the characteristics of rice farmer households participating in the RFIP in Banjar Regency and analyze the response of rice farmers to the RFIP in Banjar Regency.

II. Methods

Sample

Data for this research come from 60 rice farmers in tidal land, conducted in Aluh-aluh district from October to December, 2017. Aluh-aluh district was chosen purposively as rice farming center and become one of the areas that has a lot of insurance allocation for rice farming.

Data

The data used in this study are primary data and secondary data. Primary data obtained from the results of direct interviews to the farmers. Secondary data obtained based on institutional literature studies and related institutions in this study, such as the Statistics of South Kalimantan Province, the Statistics of Banjar Regency, the Department of Food Crops and Horticulture, South Kalimantan Province, the Office of Food Crops and Horticulture of Banjar Regency, and Extension Center District.

Methods

Banjar Regency was chosen because it has the biggest RFIP target in South Kalimantan Province in 2017. From 19 sub-districts, 1 sub-district was selected which had the criteria of having a large number of rice farmers, namely 5,939 households (Statistics of Indonesia, ST2013 result) and having the largest farming insurance participants, which is 480 farmers with insured land area of 780.47 ha (Department of Agriculture and Horticulture Crops, South Kalimantan Province, 2016). The research sample is a portion of the population of farmer households who cultivate rice plants. The sampling process is carried out through stages as:

1. The first stage: choosing the sub-district (District of Aluh-Aluh) of 6 districts in the Banjar Regency, which is Rice Agricultural Insurance Development Area.
2. The second stage: selecting villages in the chosen sub-district based on the Farmers' group who are the most participants.
3. The third stage: choosing 60 households of paddy rice farmers as a sample unit in each selected village purposively. These 60 respondents were divided into 30 AUTF participants who were proportional from the total RFIP participants in the six selected villages and 30 proportional farmers who were not RFIP participants in each village because there were no data that stated how many rice farmers did not participate RFIP in each village in Aluh-aluh sub-district.

Research Variabel

1. Participation of Rice Farmers
 - a. Farmers who participate on the RFIP
 - b. Farmers who not participate on the RFIP
2. Factors affecting the Participation of Rice Farmers in the RFIP
 - a. Formal Education Duration
 - b. Participation in Farmers' Groups
 - c. Cultivated Land Area
 - d. Experience of Rice Farmers
 - e. Rice Farming Income
 - f. Harvest Failure Risk

Data Analysis

The analytical method used in this study is a simple tabulation analysis method (univariate analysis). This analysis aims to see the description of frequency distribution, the proportion of each other variable (duration of formal education, income from rice farming, the size of cultivated land, risk of possible crop failure, and experience of rice farming) presented descriptively and percentage. In addition, this study used a simple tabulation analysis method (univariate analysis) of several indicators assessed on a Likert scale. The response in this study is divided into positive and negative responses to the RFIP. To calculate the total score of each respondent is by adding up the scores of items obtained by respondents by means of a Likert scale's summated rating.

III. Result And Discussion

Characteristics of Farmer Household Users of RFIP

Response of Rice Farmer in Tidal Land to the Rice Farmer Insurance Program (RFIP)..

Formal Education

There is a tendency for the number of respondents who participated in the RFIP to be at the highest level of education in junior high schools. Whereas for most of farmers who do not participate in the RFIP are at the level of education that tends to be lower, primary school. Based on the duration of education, it is known that respondents who joined the RFIP had an average length of education taken for 11.03 years. Whereas respondents who did not join the RFIP had an average education of 6.43 years.

Activeness on farmer groups

Group meetings start from 1 time up to 6 meetings annually. Most farmers who participated in the RFIP were in groups of 4 meetings. While the farmers who did not join the RFIP were mostly in the meeting group 2 times a year. There is a difference of meeting frequency because there are farmer groups that are less active, so they rarely hold meetings. But there are also some active farmer groups, while some members still rarely attend farmer group meetings. There are also some members of the farmer group who say that there are farmer group meetings, but respondents as members are not invited. Whereas it can be seen that communication between members with the management of farmer groups is an important matter for the activity of a group.

Farming Area

The number of respondents who participated in the RFIP was in the land area of 1.01 - 1.50 ha. Whereas respondents who did not join the RFIP was in the land area of 0.5 - 1.0 ha. The average of farming area for farmers participating in the RFIP is 1.23 ha and farmers not participating in the RFIP is 0.69 ha.

Experience of Rice Farming

The greatest number of respondents who participated in the RFIP were those who had rice farming experience for 10-15 years, which is 18.33%. While the number of respondents who did not participate in the RFIP were the most who had rice farming experience for 21-25 years, namely 21.67%. The average farming experience for respondents who participated in the RFIP was 18.47 years while those who did not participate in the RFIP were 25.47 years.

Income of Rice Farming

Rice farming income is the value of revenue which is reduced by all cost components in the rice farming process. This farming income depends on the production and the price of the rice, and the costs of farming.

Table 1. Income of Rice Farming

No	Description	Participate of RFIP (Rp)	Do Not Participate (Rp)
1	Revenue /rice farming	29,985,667	16,718,333
2	Revenue /ha	24,444,837	24,182,739
3	Total Cost /rice farming	8,985,744	6,120,741
4	Total Cost /ha	7,325,335	8,853,530
5	Income /rice farming	20,999,922	10,597,593
6	Income /ha	17,119,502	15,329,208

Based on the data presented in Table 1, shows that rice farming income for farmers participating in the RFIP is Rp. 20,999,922, - / farming or Rp. 17,119,502,- / ha. While rice farming income for farmers who are not RFIP participants is Rp. 10,597,593 / farming or Rp.15,392,208,- /ha.

Possible Risks of Harvest Failure

The risk of possible harvest failure is related to the crop damage, the greater the likelihood of crop damage, there is a tendency for the greater the likelihood of crop failure that will be experienced by farmers. Harvest failure tends to be interpreted by farmers that it is no longer possible to produce rice, farmers do not get any results from their farming, but only get far less than usual production. The greatest number of respondents who became RFIP participants were farmers who had a perception of the risk of harvest failure as much as 16-20% of the existing farming land area. While the number of respondents who were not RFIP participants were farmers who had a perception of the risk of harvest failure namely 11-15%. The average risk of harvest damage for RFIP participants is 17.77% while for non-RFIP participants is 13.33%.

Response of Rice Farmer to the RFIP

By looking at the farmers' response to the RFIP, we can assess farmers' interest in participating to the RFIP. In addition, we can assess the success of the RFIP socialization to farmers in the Aluh-aluh District of BanjarRegency. The farmers' response to the RFIP can be seen in Figure 1 below.

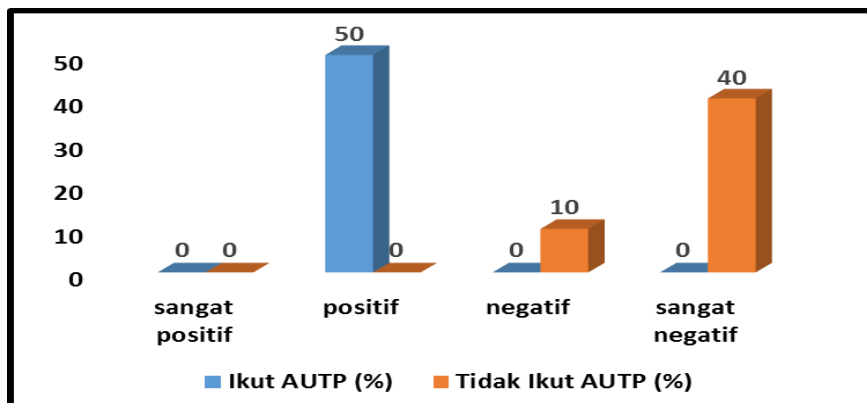


Figure 1.Distribution of respondents based on the response to the RFIP

Figure 1 shows that the number of farmers who response positively as many as 50.00%, these farmers came from farmers who were participants of the RFIP. While the rest of farmers response negative as many as 10.00% and farmers who response very negative as many as 40.00%, they came from farmers who did not join the RFIP.

The purpose of agricultural insurance is to protect farmers from the risk of crop failure. Farmers will be given compensation if they fail to harvest, so they can continue to cultivate sustainably. Thus, agricultural insurance contributes significantly to the national food security program. The aim of the program was well received by rice farmers in the Aluh-Aluh District. Most farmers already know about RFIP both the requirements and procedures for claiming, which is between 45-55 percent of farmers who already know about RFIP.

Most RFIP rice farmers who participated in the socialization by agricultural extension workers responded positively because they were active in farmer groups. While farmers who did not participate in the RFIP mostly did not know because socialization was only carried out during meetings in the farmer group. In addition, this is because these farmers rarely participate in farmer groups activities.

For ease of obtaining information, requirements, claims and procedures to participate in RFIP, there are already 43-47 percent, only a small portion responds negatively to this because the program has been facilitated by agricultural extension officers, and farmer group leaders so that farmers are not confused in organizing RFIP.

For the perceived benefits and interest to participate in the RFIP on a sustainable basis, most farmers say this program is very useful to provide protection for farmers at the risk of crop failure. This response proves that farmers really need the RFIP.

IV. Conclusion And Suggestion

Conclusion

The conclusion of this study is as follows:

1. Household characteristics of rice farmers participating in the RFIP in Banjar Regency are:
 - a. Education duration of respondents who participated in the program was 11.03 years, while those who did not participate in RFIP was 6.43 years.
 - b. Farmers participating in the RFIP are more active in farmer group meetings, they attend 4 meetings a year, while farmers who do not join the RFIP only attend 2 meetings.
 - c. The average area of farming land for farmers participating in the RFIP is 1.23 ha, and farmers not participating in the RFIP is 0.69 ha.
 - d. The average farming experience for respondents who participated in the RFIP was 18.47 years while those who did not participate were 25.47 years.
 - e. Rice farming income for farmers participating in the RFIP is Rp. 20,999,922, - / farming or Rp. 17,119,502, - / ha. While rice farming income for farmers not RFIP participants amounted to Rp. 10,597,593, - / farming or Rp. 15,329,208 / ha.

- f. The average risk of harvest failure for RFIP participants was 17.77% while for non-RFIP participants was 13.33%.
2. The number of farmers who response positively as many as 50.00%, these farmers came from farmers who were participants of the RFIP. While the rest of farmers response negative as many as 10.00% and farmers who response very negative as many as 40.00%, they came from farmers who did not join the RFIP.

V. Suggestion

The suggestions based on the results of this study are:

1. The improvement the quality of education can not wait, considering that farmers are old, but can be done through informal education which is increasing the frequency of counselling and training, so the farmers get both of knowledge and experience.
2. The importance of the role and approach of group leaders or administrators to invite their members to be more active in each meeting, and at least to be more frequent in attending each farmer group meeting.
3. Need an effort to minimize the risk of possible crop failure, so the value of income received by farmers will not decrease.
4. There need to be a simplification of rules or policies related to insurance claims from the insurance and the government so the farmers can manage the administration related to insurance claims easily.
5. The need for assistance from agricultural extension workers to farmers who are interested in participating to RFIP related to the completeness of administrative requirements and compensation claim process when farmers get a crop failure.

Acknowledment

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