



The Role Of Agricultural Groups In Increasing Rice Farming Production In The Village Of Bou, Lambandia Sub-District, Kolaka Timur District

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Abstract

The purpose of this research his to: (1) Find out how much farmer's role is to increase rice production in Bou village. (2) Knowing the motivation level of farmers in following the farmer group activities.(3) Knowing the use of superior seeds and simultan eousplanting can be influential in increasing the production of rice paddy fields. This research was conducted in Bou village. The sample determination used in this research is based on information obtain ed from farmers and farmer groups by using simple random Sampling (simple Random sample and cluster Sampling). The method of analysis used is a descriptive method, the scoring method, and the data analysis technique done on the Guttman scalet to answer the obvious (assertive) and consistent. There sults showed that the farmer Group had a big role to in crease the production of rice paddy fields in there search area that we have implemented in Bou village Lambandia, East Kolaka District. Judging from the 5 indicators consisting of simultan eousplanting, how to manage the water needs (irrigation), determination of planting times, pest and diseasecontrol, determination of the superiors eeds to be used. The motivation level of farmers in following farmer group activityes is the high est category. The role of the farmer group were proven through the media absorption in formation and means of planning the farmers through the counseling held by PPL especially in the planting simultan eously and these lection of superiors eeds canincrease production and produce cropsas expected by the farmers. The farm business in Bouvillage can be main tained to remain aquality food land.

Keywords: Role, Motivation, Increase in Production

A. Introduction

Farmers play a vital role in agricultural development and crop maintenance, as well as in learning and applying new methods needed to make their agriculture more productive (Mosher, 2015). Farmer group is a means of cooperation between farmers in farmer groups as well as a relationship with government to develop farmers in developed agricultural areas. One of the approaches of farmer groups is to carry out an activity which is usually carried out by providing agricultural extension services. The function of agricultural extension itself is to make decisions or collective agreements in farmer groups regarding their opinion or agreement with the group (Permentan, 2011).

The aim of the formation of farmer groups is to improve and further develop the capacity of farmers and their families as a subject of agricultural development through a group approach to play a greater role in development. The Farmers 'Group is a form of farmers' association that functions as an extension vehicle that should be more focused on changing farming activities for the better. Better agricultural activities can be observed through increased agricultural productivity which in turn will increase farmers' incomes and promote household savings to support the creation of better welfare for farmers and their families. families. As the need for rice has increased due to population growth, this situation has prompted the government to seek further breakthroughs to increase mass production of rice in order to maintain rice self-sufficiency.

Bou village is one of the areas located in Lambandia district, East Kolaka Regency, southeast of Sulawesi province, which has an area of about 720 ha of rice fields, a small part of the population works as farmers who work on lowland rice for their livelihood and to improve their household economy. Bou village, there are 436 farmers who cultivate lowland rice, who are members of 17 farmer groups, each group has 25 farmer members. The village of Bou is one of the villages which is quite successful in developing the agricultural sector and which has the potential to become a lowland rice agro-industrial zone.

Farmer groups are very important in the process of providing information and new technologies to farmers, as it is necessary to know the effectiveness of farmer groups as a means of extension in providing innovation. . In this method, the interaction between farmers and extension workers will be more intensive, as farmers are invited and guided in groups to carry out more productive activities based on cooperation. With this approach, the weaknesses of the traditional farming system can be corrected and the productivity of the agricultural sector can be increased. Therefore, the researcher wanted to know the role of farmer groups in increasing production.

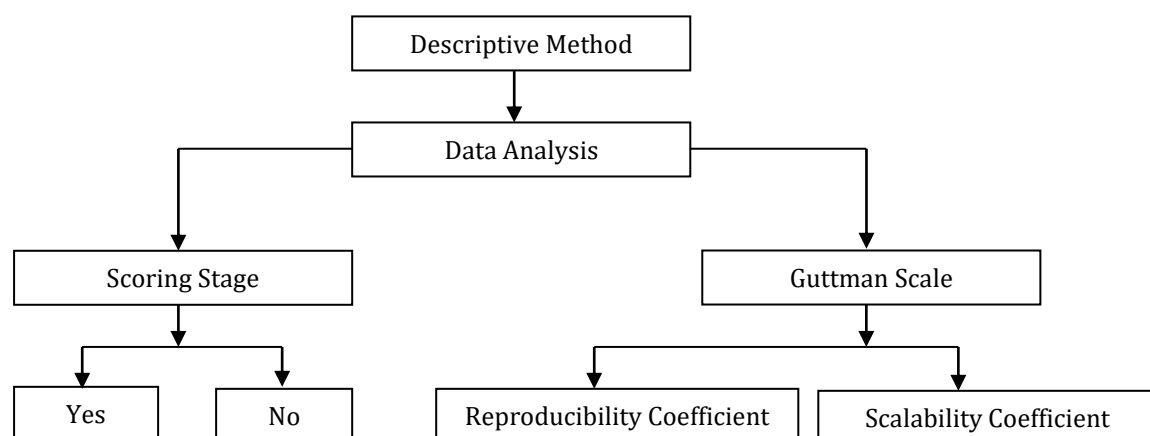
Based on this background, this research was conducted to:

1. Know the role of farmer groups in increasing lowland rice production Village of Bou.
2. Find out the level of motivation of farmers to participate in the activities of farmer groups.
3. Knowing the use of high quality seeds and simultaneous planting can have an effect on increasing lowland rice production.

B. Methodology

1. Research Design

The type of research used is research descriptive. Here, the researchers search for facts on how the role of farmer groups in increasing lowland rice production in developing the potential use of rice fields in Bou village by increasing motivation. to learn good farmers, and study the problems in paddy. fields, including the use of top quality seeds and planting, simultaneously and the process of extension activities that take place in increasing rice production, which acts as a group of farmers. To analyze the problem identification, a questionnaire table analysis was used, then the data obtained during the scoring step and analyzed using the Guttman scale were added and scored. Here is the design plan research carried out:



Information:

Scoring step : Yes = 3 highest scores
No = 1 lowest score

Guttman scale : $KR = 1 - e / n$ i.e. e (number of errors) and n (Total number of alternative responses)
 $Ks = 1 - e / c (n - T_n)$, namely c (the possible answers are "Yes" and "No") and M . (Number of answer choices)

2. Population and Sample

People can provide useful information or data a study. The sample is part of the population that is supposed to represent the study population. According to Sugiyono (2017), the sample is part of the number and characteristics of the population. The sample was made because the researcher had limitations in conducting the research both in terms of time, energy, funds and a very large population. Next, the researcher must take a sample that is truly representative (can represent). Sampling method or representative of the population studied in the village of Bou, there were 436 farmers managing rice fields out of a total of 17 groups of farmers and each group composed of 25 people, from groups of beginners, advanced farmers. and the middle class. To determine the sample size taken from the research population using the formula proposed by Slovin in Umar (2015) with a 90% confidence level with a value of $e = 10\%$, do the following:

$$n = \frac{N}{N \cdot d^2 + 1}$$

Where :

n : the number of samples required

N : total population

d : The defined level of precision = $15\% = 0.15$

$n = 44.85$, so the sample used is 45

3. Technique of Data Collection

This research uses a questionnaire or questionnaire inside collect data in which there is a set of pre-established questionnaires. Data were collected using a measuring instrument in the form of a Guttman scale questionnaire, the data obtained was in the form of interval data or dichotomous ratios (two alternatives), to know "Yes" and "No" so that the researcher hopes to obtain a firm answer to a problem under investigation. The stages of data collection in this study are:

- a. Data collection is carried out by researchers by visiting research subjects.
- b. The researcher explains to the respondent the technique for completing the questionnaire and if anything is unclear, the respondent is invited to ask.
- c. The data were collected by distributing the questionnaire directly by the researcher, assisted by colleagues around the respondent, and once the filling was completed, the questionnaire was collected from the researcher.
- d. Primary data is obtained from the results of filling out a questionnaire containing data on the problems in the questions that have been compiled for research purposes, by means of a survey of the place of research from results of direct interviews with respondents.
- e. Once the data is obtained, the following process is then analyzed the data.
- f. Secondary data obtained from Farmer Group Bureau and Bureau Village heads and agricultural extension centers (BPP).

4. Technique of Data Analysis

The data analysis techniques used are as follows :

- a. To analyze problem identification, 1 used descriptive analysis, i.e. the data collected is not in the form of numbers, but data derived from interview manuscripts, field notes, personal documents and other official supporting documents. The purpose of using a qualitative approach is to enable researchers to describe, study the conditions, conditions or a picture of the empirical reality behind the phenomenon of systematic research that occurs and is related to the role of groups farmers in increasing lowland rice production in the village of Bou, District of Lambandia.

- b. To analyze the problem identification, 2 used a questionnaire table analysis, then sums and scores the data obtained from the scoring. According to (Sugiyono, 2017), the scoring step is an activity of evaluating data by providing a score on statements related to the behavior of respondents according to the research questionnaire. The researchers used the Guttman scale to measure the variables that motivate farmers to participate in the activities of farmer groups.
- c. For the identification of problem 3, it was analyzed using the Guttman scale according to (Sugiyono, 2017) to answer a clear (firm) and coherent questionnaire, by tabulating the Guttman table by organizing the questions depending on the highest to the lowest "yes" answer. Goal. The data used can be in the form of interval data or dichotomous ratios (two different alternatives), namely (B) true and (S) false or Yes (Y) and No (T), and using a questionnaire with the Guttman scale to obtain the validation level of the instrument. questionnaire, the researchers used the reproducibility coefficient and the scalability coefficient. According to UsmanRianse and Abdi (2012), the formula for calculating the reproducibility coefficient and the scalability coefficient is as follows:

$$KR = 1 - \frac{e}{n}$$

Where :

KR = Reproducibility coefficient

e = number of errors

n = Total number of responses = Number of questions x Number of respondents

$$KS = 1 - \frac{e}{c(n - Tn)}$$

Where :

KS = Scalability coefficient

e = number of errors

k = number of expected errors = c (n-Tn)

n = Total number of answer choices = Number of questions x Number of respondents

Tn = number of answer choices

c = The possible answers are "Yes" and "No" then c = 0.05

C. Findings and Discussion

1. The role of farmer groups in paddy rice cultivation

The role of farmer groups in increasing production and success Lowland rice cultivation can be viewed from each parameter in the form of descriptive questions. The group of farmers organized a socialization of the plantation twice in six months, because each time the existence of the incoming technology should be socialized to the farmers so that the farmers can easily absorb and apply planting methods simultaneously and not harm each other for the rice farmers. The activities carried out include cooperation and cohesion, the application of new technologies, the use of high quality seeds, the use of appropriate and judicious pesticides, as well as extension activities regarding the impact of the use of chemical pesticides on the agricultural environment is one of the things that must be passed on to farmers as it involves land use on a long term basis. Farmers are expected to plant them simultaneously in order to increase rice production, as it will be the simultaneous planting of rice reduce pest attacks, break the chain of weed diseases, ease of irrigation, easy distribution of production facilities, efficient use of agricultural machinery (alsintan), facilitate post-harvest and optimal cooperation in order to obtain maximum production results as expected.

The village of Bou is an alternative way of irrigating the rainfed land during the dry season. The use of irrigation for agriculture is done by delivering water to paddy fields using gravity or by allowing water to flow by itself into the land. Irrigation is mainly used by farmers, namely to provide water by flowing between fields rice fields of other farmers to be efficient, so that the water needs for agriculture can be met equally. The irrigation system used by the farmers of the village of Bou is very suitable for their agricultural land which has fine to medium textured soil and is in areas with flat topography, so that the water is obtained evenly and facilitates the management of their rice fields by farmers.

Of the 45 sample farmers who were interviewed, all farmers followed the planting schedule set by the farmer groups, this proves that the effect of the planting schedule on the increase in rice production of the farmers. lowlands can be seen from the treatment given by farmer groups and field extension. among other things, farmers can use the labor of other farmers to plant lowland rice as long as the assisted farmers help other farmers when it is time for other farmers to plant, this is considered effective to save the cost of hiring labor. Plant growth is not only determined by rainfall at the time of planting, but also by the amount and distribution of rainfall during the planting period, therefore, the determination of the planting period should take into account the distribution of rainfall during the growing season to reduce the risk of crop pests, crop failure. , flooding and wind collapse, so that production or expected yields can be maximized if planted at the right time, the success of lowland rice cultivation is therefore strongly influenced by environmental conditions.

Of the 45 sample farmers surveyed, all farmers said that the advantages of using chemical pesticides are that they are easy to obtain in the market, easy to apply, do not have to wait long to obtain results or eradicate pests and diseases, while the downside is that they often have to switch pesticides or alternate the use of pesticides to prevent pests and diseases. What one wants to eradicate does not become immune or resistant, which often makes farmers overwhelmed by the choice of pesticides to use next for previously used. What farmers usually do to control pests and diseases in rice is to know the types of pests, when they are in the paddy fields and what disturbs the balance, so that their development can be anticipated according to the conditions. stages of plant growth.

From the results of interviews with 45 sample farmers, it can be described that the role of farmer groups in increasing lowland rice production in Bou village is quite good. This can be seen from the positive responses given by the sample farmers to questions posed by researchers through interviews regarding the role of farmer groups, i.e. farmers as samples. Using the direct farmer interview method, it is expected to provide insight based on field conditions, based on the results of the overall interview regarding the importance of the role of farming groups. farmers in increasing the production of lowland rice in the village of Bou, as we can see. that all the activities of farmer groups can help farmers increase their rice production through activities carried out by farmer groups.

2. Motivation of farmers

The level of motivation of farmers to participate in the activities of farmer groups Village of Bou. This shows that the role of farmer groups is very influential in increasing lowland rice production.

According to the results of the global study, the average score for the motivation of farmers to participate in the activities of farmer groups is 92.4%, which means that the motivation of farmers to participate in the activities of farmer groups. farmers in the village of Bou, in the district of Lambandia is ranked as the highest motivation. , or in other words, farmer groups are very influential in increasing lowland rice production in the study area. Farmers have a strong motivation, this is because they do not require high costs, low maintenance, income from farming twice a year can meet the living needs of the family until the next planting season, using top quality seeds and planting simultaneously, the risk of crop failure is relative, less because it is resistant to pests and diseases and can ensure household food security. effectively and efficiently to achieve satisfactory results.

3. The role of farmer groups in increasing paddy rice production

This study uses the Guttman scale of measurement to know the respondent's response to the questions asked in the questionnaire, i.e. 20 question items. The variables used for the research are variable X (role of farmer groups) and variable Y (increase in rice production), each variable consisting of several indicators, including:

- I. The indicator for variable X includes:
 - X1 = Simultaneous planting (includes three questions) X2 = Irrigation (includes three questions)
 - X3 = Time of planting (includes three questions)
 - X4 = Pest and disease control (includes three questions) X5 = Use of high quality seed (includes three questions)
- II. The variable indicator Y includes:
 - Y1 = Land area (made up of two questions)
 - Y2 = Harvest period (made up of three questions)

Based on the tabulation of the responses of 45 respondents (attached), which are described through the presentation of each of the questions asked. From the results of the responses submitted through the study questions, i.e. using the Guttman scale method approach to determine the respondent's level of confidence in the object of interest, the results of the calculation are obtained according to this approach.

Based on the results obtained from the tabulation of the responses of the respondents by calculating the reproducibility coefficient and the scalability coefficient, the following results were obtained:

1. The reproducibility value is 0.9998, which proves that the level of validity of the results of the variable items in this study is achievable, when the eligibility conditions for the approach using the Guttman method are $0.9998 \geq 0.90$.
2. The scalability value is 0.9997, which proves that the level of confidence in the results of the variable elements of this study is achievable, when the confidence requirements in the approach using the Guttman method are $0.9997 \geq 0.60$.
3. Based on the eligibility value, the result shows that the number of "Yes" responses is 894 and that the number of "No" responses is 6 out of the total possible responses of 900 responses, so the average answer Yes or the equivalent of 99.3%. This shows that the questionnaire or list of questions related to the variables used in the study can provide insight into the level of confidence and assertiveness of what is asked of the respondent. 99.3% of respondents strongly believe and state that farmer groups play a very important role in increasing lowland rice production by using top quality seeds and planting simultaneously, so that farmers percentages are based on the indicators of this study:
 - a) 100% of respondents or farmers in the village of Bou believe that the role function in the group of farmers can improve the planning of the good management of agricultural activities and increase the knowledge of farmers in carrying out their rice-growing activities through advice carried out jointly with groups of farmers.
 - b) 99.3% of respondents or farmers in the village of Bou felt that the function of internalising farmer groups could increase the knowledge of farmers regarding the use of higher quality seeds that should be used, provide information and guidance and seek cooperation for the process of planting activity to be carried out. simultaneously.
 - c) 100% of respondents or farmers in the village of Bou cultivate rice fields with an area that never decreases, which shows the strong commitment and motivation of farmers to increase their agricultural production.
 - d) 100% of respondents or farmers in the village of Bou can harvest the production of their agricultural activities 2 times a year and there has been an increase in the yield according to the expectations of the farmers in the past five years, this shows that the harvest period is more consistent and tends to increase from the results of the rice production they are growing.

D. Conclusion

Farmer groups have an important role to play in increasing lowland rice production in the research area that has been implemented in Bou village, Lambandia district, Kolaka East regency. Judging by the 5 indicators including simultaneous planting, how to manage water requirements (irrigation), determining when to plant, controlling pests and diseases,

determining which top seeds to use or for use by farmers. The level of motivation of the farmers to participate in the activities of the farmer groups in the village of Bou can be considered as the highest category of motivation. This shows that the role of farmer groups is very influential in increasing lowland rice production. The role of farmer groups is proven by the means of absorption of information and advice held by PPL (field agricultural extension workers), especially in the simultaneous planting and selection of high quality seeds, can increase the yields as expected by the farmers and the agricultural land of the village of Bou can be maintained remains a quality and quality community food land.

E. References

- Abdi & Usman, R. (2012). *Metodologi Penelitian Sosial dan Ekonomi Teori dan Aplikasi*. Alfabeta. Bandung.
- Dinas Pertanian. (2012). *Tanaman Pangan Provinsi Sulawesi Tenggara. Petunjuk Pengembangan. Bimbingan Penyuluhan Kelembagaan Kelompok Tani. Sulawesi Tenggara*.
- Hadi, S. (2019). Peran Kelompok Tani dan Persepsi Petani terhadap Penerapan Budidaya Padi Organik di Kabupaten Jember. *Jurnal Penyuluhan Universitas Muhammadiyah Jember*. 15 (2) :1-15.
- Ikbal, M. (2014). Peranan Kelompok Tani dalam Meningkatkan Pendapatan Petani Padi Sawah di Desa Margamulya Kecamatan Bungku Barat Kabupaten Morowali. *Jurnal Agrotekbis Universitas Tadulako*. 2 (5) :1-5.
- Matanari, D. (2015). Peranan Kelompok Tani terhadap Peningkatan Produksi Padi Sawah (Oriza Sativa) di Desa Hutagugung Kecamatan Sumbul Kabupaten Dairi. *Jurnal Agribisnis*. 2 (3) :1-5.
- Mosher, A. T. (2012). *Menggerakkan dan Membangun Pertanian*. Bumi Aksara. Jakarta.
- Nuryanti, S., & Swastika, D., K. (2012). Peran Kelompok Tani dalam Penerapan Teknologi Pertanian. *Forum Penelitian Agro Ekonomi* : 115-128.
- Parawansa, D. (2013). Peranan Kelompok Tani dalam Usahatani Kakao di Desa Lambandia Kabupaten Kolaka Timur. *Jurnal Ilmiah Membangun Desa dan Pertanian*. 3 (6) :157-162.
- Permentan. (2011). *Pedoman Pembinaan Kelompok Tani dan Gabungan Kelompok Tani. Peraturan Menteri Pertanian*. Jakarta.
- Prasetya, R. (2015). Peranan Kelompok Tani dalam Peningkatan Pendapatan Petani Kopi di Kelurahan Tugu Sari Kecamatan Sumberjaya. *Jurnal Agribisnis*. 3 (3) :1-7.
- Sugiyono. (2017). *Metode Penelitian Kuantitatif Kualitatif dan R& B*. Alfabeta. Bandung.
- Umar, H. (2015). *Metodologi Penelitian, Untuk Skripsi dan Tesis Bisnis*. Jakarta.