



Analysis Of The Role Of Farming Group In Increasing Corn Production

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Abstract

This study aims to analyze the role of farmer groups as learning classes, collaboration vehicles, production units, and business units in Lemoe Village, Bacukiki District, Parepare City. This research was conducted from 7 July 2023 to 7 August 2023 in Lemoe Village, Bacukiki District, Parepare City. This study uses primary data collection techniques and secondary data. The method used is descriptive analysis and the Likert scale. The results showed that (1) Farmer groups played a very important role as a learning class for increasing corn production in Lemoe Village. (2) The role of farmer groups is very important as a media for cooperation in increasing corn production in Lemoe Village. (3) The role of farmer groups as a production unit plays a role in increasing the production of corn in Lemoe Village. (4) The role of farmer groups as a business unit plays a role in increasing corn production in Lemoe Village.

Keywords: Farmer groups, production, corn crops, Likert scale

A. Introduction

Sources of food generally come from farmers, the national food crop production for rice in 2021 is 54.42 million tonnes of GKG. If converted to rice, rice production in 2021 will reach around 31.36 million tons or a decrease of 140.73 thousand tons (0.45 per cent) compared to rice production in 2020. Paddy production in 2020 is estimated at 54.65 million tons MPD. Production of rice food crops is still at the top, this is because the majority of Indonesian people still consume rice derived from paddy as the main food ingredient. After that, followed by corn which is in second place, because most Indonesian people also use corn as a main food ingredient. Corn is one of the food crops which is a source of carbohydrates for humans.

Corn as a food crop has the potential to meet the welfare of farmers and meet the availability of national corn. One of the maize development policies at the national level that continues to be encouraged by the Coordinating Ministry for Economic Affairs is the establishment of the National Corn Reserve (CJN) with Perum Bulog as the manager of the food reserve. The success of farming is inseparable from the role of human resources, both farmers and extension workers. Improving the quality of human resources (HR), especially the community of food crop farmers as a national asset is very important, one indicator of the success of national development is inseparable from the community's readiness to process food crop production to meet national food needs.

Parepare City is one of the agricultural cities where the plantation sector plays an important role in improving people's lives. One of the factors that encouraged the establishment of farmer groups in Lemoe Village was the low level of education. This is because the average education level of the farmers in Lemoe Village in elementary school. There are even those who do not

attend education or do not go to school. However, in this group, there are still things that the government must pay attention to, especially its members where each member has responsibilities in their family. With these problems, it encourages researchers to conduct research with the title "Analysis of the Role of Farmer Groups in Increasing Corn Production in Lemoe Village, Bacukiki District, Parepare City.

B. Methodology

Population and Research Sample

This research took place in two months, starting from June 7 2023 to August 7 2023. This research was conducted in Lemoe Village, Bacukiki District, Parepare City. The research location was chosen deliberately as a research area with the consideration that Kelurahan is the majority of corn farmers. The data needed in this study are primary data and secondary data. Primary data was obtained by direct observation at the research location and direct interviews with respondents using a list of questions that had been prepared beforehand. While secondary data is data obtained from reports, documents, and previous researchers.

Data analysis

Testing the first problem with the Descriptive Analysis method, Descriptive Analysis explains and describes the state of the phenomena that occur in the research area and finds out the role of farmer groups in increasing corn production. Measurements were made with a Likert scale. The Likert scale is used to determine the location of a person's position in attitude. Location determination is used by quantifying a person's response to a statement. The measured variables are translated into variable indicators. This indicator is used as a starting point for compiling instrument items in the form of statements or questions that need to be answered by respondents (Yanto 2017).

In Lemoe Village, there are 27 farmer groups consisting of 16 novice farmer groups, namely Sipakario, Mitra, Paomalimpoe, Berkah 1, Rebil Farmer Youth, Kirei Farmer Women, Sipakario, Harapan, Medina, Padaelo, Sibalireso, Sumber Rezeki, Wanua Lemoe, Rice Flower. There are as many as 5 intermediate farmer groups, namely the Cramele, Subur, Berkah, Bilalang, and Massiddie farmer groups. and 6 advanced farmer groups, namely the Mappadeceng, Lestari, Cramele, Karya Bersama, Mattaropolie, and Sipatujue farmer groups (Ayu Wulandari 2023) In this method, the technique chosen is judgment sampling or purposive sampling which is a sample selection technique based on the criteria formulated by the researcher and the researcher's assessment which states that the selected sample is truly representative (Sutopo and Achmad, 2017).

C. Findings and Discussion

Characteristics of Sample Farmers

Characteristics of sample farmers from this study include farmer age, farmer education, and farmer experience.

a. Characteristics of Sample Farmers by Age

The age of the respondent is the length of time the respondent lived until the research was carried out, the productive age of the farmer will affect the process of adopting an innovation. According to BPS (2012), based on the composition of the population, ages are grouped into 3, namely those aged 0-14 years are considered as a non-productive population group, the population age group 15-64 years as the productive group and the age group 65 years and over as the population group that is no longer productive. Based on data obtained from research results in Lemoe Village, the age of the respondent farmers varied between 30-50 years. In detail, the age distribution of the respondent farmers can be seen in Table

Table 1. Characteristics of Sample Farmers by Age

No.	Age (Years)	Amount (People)	Percentage (%)
1	30 – 39	6	20
2	40 – 49	13	43,3
3	50 – 59	11	36,6
Amount		30	100

Source: Primary data processed, 2023.

Based on Table 1. it can be explained that the most age characteristics of the sample farmers were in the 40-49 year group, namely 13 farmers with a percentage of 43.3%, while the few sample farmer age characteristics were found in the 30-39 farmer group, namely 6 farmers with the percentage of 20%.

b. Characteristics of Sample Farmers by Education Level

The education level of farmers is one of the factors that influence the way of thinking of farmers, where in general farmers who have a higher level of education tend to accept innovations more quickly than those with lower levels of education. The level of education in question is the formal education attended by the respondent farmers. More details regarding the details of the respondent farmers based on the level of formal education can be seen in Table 2.

Table 2. Characteristics of Sample Farmers by Education Level

No.	Last education	Amount (People)	Percentage (%)
1	No school	14	46,6
2	Elementary School	5	16,6
3	Junior high school	3	10
4	Senior High School	8	26,6
Amount		30	100

Source: Primary Data Processed, 2023.

Based on Table 2. it can be explained that the characteristics of the sample farmers according to their level of education were the most numerous, namely 14 people who did not go to school with a percentage of 46.6%, while the lowest level of education was junior high school, namely 3 people with a percentage of 10%.

c. Characteristics of Sample Farmers According to Farming Experience

The duration of farming is an indicator that indirectly supports the success of farmers as a whole. Farmers who have experience and are supported by complete production facilities and are more able to increase productivity when compared to farmers who are new to farming land. Based on the data obtained from the results of research in Lemoe Village, a description of the experience of paddy rice farming can be seen in Table 3.

Table 3. Characteristics of sample farmers according to farming experience

No.	Farming Experience (Years)	Amount (People)	Percentage (%)
1	1 – 5	14	46,6
2	6 – 10	5	16,6
3	11 – 15	7	23,3
4	16 – 20	4	13,3
Amount		30	100

Source: Primary Data Processed, 2023.

Based on Table 3. it can be explained that the most farming experience is 1-5 years, namely 14 people with a percentage of 46.6%, while the least farming experience is 16-20 years, namely 4 people with a percentage of 13.3%.

The Role of Farmer Groups in Increasing Corn Production in Lemoe Village

Farmer groups play an important role in corn farming activities in Lemoe Village. Farmer group development is directed at increasing the ability of farmer groups to carry out their roles and functions to spur formation in improving farmer performance

a. Farmer Groups As Learning Classes

Farmer groups as learning and organization are a place for each member of the group to interact with each other to increase knowledge, skills and attitudes in farming to increase abilities in doing farming. Farmer groups as a vehicle for learning and organization are a forum for teaching and learning for its members to increase knowledge, skills and attitudes as well as grow and develop independence in farming so that productivity increases, income increases and more prosperous life.

The results of observations and direct interviews with respondents at the study sites found that farmer groups in the study class contributed to corn production in each growing season. This can be shown in the following table:

Table 4. The Role of Farmer Groups as Learning Classes

No.	Statement	Score
1.	Farmer groups carry out regular and ongoing meetings to discuss and discuss knowledge and skills on problems in corn farming	135
2.	Participate in various necessary trainings to increase farming knowledge and skills	134
3.	Farmer groups as motivation in meeting the needs to be achieved	139
4.	Farmer groups as evaluation and monitoring of farmer group members in understanding the theory and implementation of farmer group programs	127
5.	The materials used by extension workers can change the behaviour of members of farmer groups to do farming efficiently	120
6.	There is mutual exchange of experiences and opinions among fellow members in farmer groups in farming so that problems can be solved together	136
Amount		791

Source: Primary Data Processed, 2023.

From Table 4. it is explained that the role of farmer groups as a learning class obtained a score of 791, that value is in the range of values 756-900 with a very active or very agree category. The highest score is found in the farmer group statement as motivation in fulfilling the needs to be achieved with a score of 139, because agricultural extension workers always motivate farmers to continue to improve farmers skills in corn farming so that the production produced is better to increase farmers' income to meet the needs of farmer families. Apart from that, the farmers also exchanged ideas, consulted with each other if they wanted to take action, practised the knowledge given to extension agents, and farmer groups as a forum for learning classes succeeded in becoming a forum for adding information to farmer groups. Some of the advantages of forming farmer groups are the tighter interaction within the group and the more fostered group leadership, the more directed the rapid increase in the spirit of cooperation between farmers so they can deal with problems.

The lowest score is found in the statement that the material used by extension agents can change the behaviour of members of farmer groups to do farming efficiently because with a score of 120 because agricultural extension provides additional knowledge by visiting groups, with extensive knowledge, members of farmer groups can face threats, obstacles and obstacles so that production increases and increasing knowledge in corn farming. Therefore the importance of farmer groups as a forum for additional knowledge so that farmers can do farming properly and correctly. Farmer groups will progress and continue to develop if the members in the farmer group together want to progress and change for the better.

b. Farmer Groups as a Platform for Cooperation

Farmer groups as a vehicle for cooperation are a forum for each member of the group to strengthen cooperation between fellow farmers in the group and between groups and other parties to deal with threats, challenges, obstacles, and disturbances in farming (Setiadin 2005). The results of research on the role of farmer groups as a forum for cooperation in Lemoe Village can be seen in the following description:

Table 5. Farmer Groups as a Platform for Cooperation

No.	Statement	Scor
1.	Creating an atmosphere of mutual acquaintance, mutual trust and cooperation	144
2.	Farmer groups cooperate with other members in conducting corn farming to reduce production costs	126
3.	Farmer groups carry out cooperation in seeking information about market opportunities to achieve the highest prices	129
4.	Farmer groups carry out business cooperation with providers of production facilities	125
5.	Farmer groups as a forum for cooperation to face threats, challenges, and obstacles	133
6.	Group members comply with and carry out agreements between groups and other parties regarding the implementation of corn farming	130
Amount		787

Source: Primary Data Processed 2023.

Based on Table 5. it can be explained that the role of farmer groups as a forum for cooperation obtained a score of 787, that value is in the range of 756-900 with a very active or very agree category. The highest score is found in the farmer group statement creating an atmosphere of mutual acquaintance, mutual trust and cooperation with a score of 144, as a vehicle for cooperation the respondents or members of the farmer group work together in developing corn plants, the members also work together to overcome problems that occur in pest management and disease, besides that they also help each other between other groups such as planting, fertilizing, and harvesting.

The lowest score is found in the statement of farmer groups carrying out business cooperation with providers of production facilities, namely with a score of 125 because cooperation with providers of production facilities is only carried out within farmer groups. The group leader facilitates the needs of its members such as seeds, fertilizers or pesticides which will be paid at the time of harvest with the condition that the farmer group chairperson will harvest the members' land. However, cooperation outside farmer groups or other parties has not been implemented properly.

c. Farmer Groups as Production Units

Farming as a production unit carried out by each member of the farmer group, as a whole must be seen as a business entity that can be developed to achieve economies of scale, both in terms of quantity, quality and continuity (Permentan No. 82 of 2013). The results of direct observation and insight with respondents at the research location found that farmer groups as a production unit contributed to corn production in each growing season. This can be shown in the following table:

Table 6. Farmer Groups as Production Units

No.	Statement	Scor
1.	This farmer group encourages its members to use more advanced technological tools to be effective and efficient	121
2.	The production facilities provided are what is needed by farmers	127
3.	Farmer groups facilitate the application of farming technology (materials, tools, methods) for their members	130
4.	Make decisions in determining the development of profitable production	123

5.	Farmer groups formulate joint agreements, both in solving problems and in carrying out various group activities so that farming is more effective and efficient to achieve maximum results	126
6.	Farmer groups cooperate and improve cooperative relations with business partners	122
Amount		749

Source: Primary Data Processed 2023.

Based on Table 6. it can be explained that the role of farmer groups as a production unit obtained a score of 749 this value is in the range of values 621-750 with the category of playing a role or agreeing. The highest score is found in the statement of the farmer group facilitating the application of technology (materials, tools, methods) to the farming of its members, namely with a score of 130, due to several facilities offered by farmer groups in Lemoe Village in meeting the business needs of its members, namely by providing paid inputs such as fertilizer and seeds. after harvesting as well as farmer groups prepare machines to harvest corn. In addition, they also work with business partners, such as selling their crops with Pt. Japfa or large factories. This is aimed at achieving production efficiency with a large production scale to save on production factor costs and ease of management (Akhmad, 2007 in Nasrul, 2012).

The lowest score is found in the statement of this farmer group encouraging its members to use more advanced technological tools to be effective and efficient, namely with a score of 121 because farmer groups encourage their members to use more advanced technology, more advanced technology is usually seen on YouTube or seen directly from outside the region, but the problem is that the farming land in Lemoe Village is mountainous (uneven) and rocky besides rain-fed irrigation, so the use of more advanced technology is minimal, such as the use of drones for harvesting and the most sophisticated is combine for harvesting.

d. Farmer Groups as Business Units

The results of observations and direct interviews with respondents at the research location of farmer groups as business units can be shown in the following table:

Table 7. Farmer Groups as Business Units

No.	Statement	Scor
1.	Farmer groups provide capital in corn farming	127
2.	Farmer groups received training in the development of corn farming	133
3.	Farmer groups receive post-harvest training in processing corn into finished or semi-finished products so that they have a high selling value	121
4.	Farmer groups received training on waste utilization to make compost from corn plant waste	115
Amount		496

Source: Primary Data Processed, 2023.

Based on table 7. it can be explained that the role of farmer groups as a business unit obtained a score of 496, that value is in the range of values from 405.9 to 501.1 with a role or agree category. The most common score indicator is in the statements of farmer groups receiving training in the development of corn farming with a score of 133 because agricultural extension agents always provide training in developing corn farming so that the resulting production is better to increase farmers' income. As is the case with novice farmer groups who continue to receive assistance from extension workers so that they get good results in farming, while the middle and advanced farmer groups make their own decisions because they are experienced but are still assisted by extension agents, the role of extension agents is not only limited to assistants but as distributors. farmers with the government or academics with farming actors. With the assistance of extension workers in the cultivation of maize and rice, the farmers have succeeded in developing their cultivation so that they routinely harvest their crops 2x a year with an average income of IDR 15,000,000-30,000,000; one harvest.

The lowest score was found in the statement that the farmer group received training on waste utilization to make compost from corn plant waste with a score of 115 because the farmer group had received training to use waste to make compost. However, only a few farmers continue it because farmers feel lazy with its manufacture which requires time and effort, so farmers prefer chemistry because it is easier to obtain, although it is a bit expensive.

The role of farmer groups is very important for farmers, namely helping farmers in all activities and problems in farming, with farmer groups, farmers can jointly solve problems which include fulfilling agricultural production facilities, production techniques, marketing results and increasing production costs. Seeing this potential, farmer groups need to be fostered and further empowered so that they can develop optimally. The role of farmer groups in Lemoe Village, Bacukiki Subdistrict, from the results of field research observed were (1) learning classes, (2) collaboration vehicles, (3) production units and, (4) business units as follows:

Table 8. Indicators of the Role of Farmer Groups in Lemoe Village

No.	The Role of Farmer Groups	Scor	(%)	Kategori
1	As a Learning class	791	87,7	Very instrumental
2	As a Cooperation Media	787	87,4	Very instrumental
3	As a Production Unit	749	83,2	Role
4	As a Business Unit	496	82,6	Role
	Amount	2.824	340,9	Very instrumental
	Average	705,75	85,25	Very Instrumental

Source: Primary Data Processed, 2023

Based on Table 6. it can be explained that the role of farmer groups in increasing corn production is included in the very important category with a value of 2,824 or the equivalent of 85.5%, meaning that the standard indicator of the role of farmer groups can already play a good role and help in increasing the production of corn farming.

The role of farmer groups as a learning class is a forum for each member of the group to interact with each other to increase knowledge, skills and attitudes in farming so that they can increase their ability to do farming. The indicator for the role of farmer groups as a learning class has a value of 791 or the equivalent of 87.7% which is categorized as very involved, seen in the Likert scale class range which strongly agrees with a value of 756-900. It is said to play a very important role because farmers learn a lot from meetings held by extension workers. Farmers also learn not only in groups but also learn from other group members. Fellow group members or from outside their group members share ideas to solve the problems faced as well as exchange farming information, therefore they can interact not only fully facilitated by their group but also from friends outside the group.

The role of farmer groups as a medium for cooperation is a forum for each member of the group to strengthen cooperation between fellow farmers in the group and between groups and other parties to deal with threats, challenges, obstacles and disturbances in farming (Setiadin, 2005). The role of farmer groups as a medium for cooperation has a value of 787 or the equivalent of 87.4% which is categorized as very involved, as seen in the Likert scale class range which strongly agrees with a value of 756-900. Where farmer groups help in efforts to know each other, trust each other, cooperate among fellow group members, openness between fellow members and as a place for discussion about the problems and obstacles they face in corn farming.

The role of farmer groups as a production unit that is carried out by each member of the farmer group, as a whole must be seen as a business unit that can be developed to achieve economies of scale, both in terms of quantity, quality and continuity (Permentan No. 82 of 2013). The role of farmer groups as production units is categorized as having a role, namely with a value of 749 or the equivalent of 83.2% if seen in the Likert scale class range agrees with a value of 620-750. Where in this case group members feel that the existence of the group as a farming production unit has helped, because at this time the provision of fertilizer assistance received by the group is to be distributed to group members, besides that the farmer group also facilitates its

members by providing capital in the form of seeds, medicines. Farmer groups also provide technology in the form of combine to harvest corn. All of this is done to minimize time and production costs to increase farmers' income.

The role of farmer groups as business units is profit-oriented business activities, so in this case, farmer groups can act as business agents who mobilize collective resources (energy and mind) for the benefit of the group so that farming is more efficient. The role of farmer groups as a business unit is included in the role category because the value obtained is 496 or equivalent to 82.6%, seen from the Likert scale class range agrees 621-750, where the search for capital has not been fully fulfilled to develop yields to become a product new. After all, the capital provided by the group was only in the form of assistance with production facilities but it was also enough to help in production.

D. Conclusion

From the results of the study, it can be concluded that the role of farmer groups as a learning class plays a very important role in increasing corn production in Lemoe Village, with a value of 791 or the equivalent of 87.7%, seen from the Likert scale class range strongly agrees with a value of 756-900, the role of Farmer groups as a medium of cooperation play a very important role in increasing corn production in Lemoe Village, with a value of 787 or the equivalent of 87.4%, judging from the Likert scale class range, it strongly agrees with a value of 756-900. The role of farmer groups as production units plays a role in increasing corn production in Lemoe Village, with a value of 749 or the equivalent of 83.2%, seen from the Likert scale class range agrees with a value of 621-750 and the role of farmer groups as business units play a role in increasing production corn plants in Lemoe Village, with a value of 496 or the equivalent of 82.6%, seen from the Likert scale class range agrees with a value of 405.4-501.9.

E. References

- Arikunto. 2008. Research Procedures: A Practice Approach, Revised Edition VI, Jakarta: PT Rineka Cipta.
- Ayu Wulandari. 2023. Farmer Group Data. Department of Agriculture, City of Parepare.
- Food Crops Agriculture Office of East Kalimantan Province. 2002. Development Guidelines, Extension Guidance and Farmer Group Institutions. Samarinda.
- Department of Agriculture, Maritime Affairs and Fisheries of the City of Parepare. 2021. Harvest area and production.
- Nasrul, W. 2012. Development of Agricultural Institutions for Increasing the Capacity of Farmers for Agricultural Development. *Tower of Science Journal*, 3(29): 166-174.
- Paeru, H. Rudi. 2017. Practical Guide to Corn Cultivation. Jakarta: Independent Spreader.
- Lamp. 2011. Report: Future Spearhead Farmer Groups.
- Armenian [Regulation of the Minister of Agriculture] Number 82 of 2013 concerning Guidelines for the Development of Farmer Groups and Associations of Farmer Groups.
- Soekartawi, 2002. Farming Analysis. UI-Press. Jakarta.
- Soekartawi, 2002. Factors of Production, Jakarta: Salemba Empat.
- Sutopo, Y., and Achmad S. 2017. Inferential Statistics. Publisher Andi. Yogyakarta.
- Suprpto and Marzuki. 2002. Planting Corn. Self-help Spreader. Jakarta