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The Role Of Agricultural Extensioners In Empowering Farmers (Case Study Of Pad Rice Farmers In Waitoso Village)

Lan S. Tambipessy[1]

[1]Agricultural Extension Study Program, Faculty of Agriculture, Pattimura University
Jln. Ir. M. Putuhena, Poka Campus, Ambon – 97233

Email: lannetwork26@gmail.com

Abstract

This study aims to determine the role of agricultural extension workers in empowering lowland rice farmers in Waitoso Hamlet . The analysis was performed using the SPSS descriptive test . In this study the SPSS descriptive test was used to determine the assessment obtained previously . The results showed that the role of extension workers was as a Facilitator, Motivator, and Communicator where the results of the analysis proved that there was a change in behavior in farming.

Keywords **: the role of agricultural extension, farmer empowerment, farmers.**

INTRODUCTION

Agricultural extension is an educational process with a non-formal education system to change the behavior of adults (farmers) in order to increase or have better knowledge, skills and attitudes, so that targets can choose and make decisions from various alternative existing knowledge to solve problems in an effort to improve welfare. An extension agent influences targets through his application as a facilitator, motivator, communicator, and farmer innovator (Marbun *et al,* 2019).

The role of extension workers in agriculture is as advisors, technicians, liaisons, organizers and reform agents for farmers (Sundari *et al,* 2015). The role of extension workers as facilitators includes facilitating the formation of farmer groups, growing capital and facilitating borrowing business capital (Narso *et al,* 2012). The role of agricultural

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extension workers as a motivator is to provide motivation or encouragement to farmers to always advance their farming business, encourage farmers to develop their potential by forming farmer groups and encourage farmers to become entrepreneurs (Narso et al, 2012 *)* . The role of a communicator, namely agricultural extension workers, has a role in managing innovation communication, a role in utilizing communication media, a role in face-to-face communication, and a role in building partnerships (Narso et al, *2012*).

The current implementation of agricultural extension is expected to be able to bridge the phenomena that occur in the farmer's environment with the development of science, both agriculture and agricultural extension candidates are equipped with applicable scientific theory in the hope of advancing Indonesian agriculture in the end.

The non-optimum role of agricultural extension services can be caused by the low level of farmer participation in agricultural extension services as a result of the low quality of agricultural extension services. In addition, the weak and unsystematic funding system has become one of the causes of the low performance of agricultural extension workers in carrying out their duties and functions. Agricultural extension agents are partners and facilitators of farmers by carrying out appropriate roles, including as: providers of educational services, motivators, consultants (counselors) and assistants to farmers and facilitators (Rasyid in Sari, 2013).

According to Kaliky (2012) Agricultural extension services in Maluku are acknowledged to have contributed to the success of agricultural development in the area, which among other things is shown by the existence of agricultural activities for food crops, plantations and plantations. However, the performance of extension services in the Maluku region is still relatively low due to various problems. Overcoming counseling in Maluku, among others: First, the relatively limited number of extension workers. Second, the allocation of extension workers between districts, between districts, and between villages is disproportionate; and third, support for limited extension operational costs. These factors are thought to have an effect on agricultural extension work, especially because they are dealing with the conditions of extension work areas that are spread between islands. Therefore agricultural extension in Maluku Province as an archipelago requires a specific work pattern.

The main problem faced by agricultural extension workers in Maluku Province is the condition of the archipelago, diverse agricultural systems or polycultures that have many commodities, besides that the number of extension agents as many as 812 people is not comparable to the number of existing villages, namely 1,236 villages, so that the placement of extension agents in each village is not equally. Another problem is the high

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cost of transportation because it is an archipelago and is not offset by the Extension Operational Cost (BOP) allowance available from the Government.

RESEARCH METHODS

The time of this research was conducted for 1 month, namely in October 2022. The research location was carried out in the Waitoso Hamlet, because the Waitoso Hamlet has lowland rice farmers.

The population in this study were 103 rice farmers, but not all populations were asked for data due to the large population size, therefore several samples were taken as data in this study. The samples were taken using a simple random technique (*purposive random sampling*) . amounted to 30 people or 15% of the total population of 103 people. According to Arikunto (2010) sampling withdrawal, that is, if it is less than 100, it is better to take all of them so that the research is a population study. If the number of subjects is large, it can be taken 10-15% or 20-55% or more, depending on the size.

This type of research is done through a descriptive qualitative approach. According to Tylor *in* Sujarweni (2014) qualitative research is a research process that can produce descriptive data such as speech or writing and the characteristics of the people being observed. Qualitative research includes the use of subjects studied and collections of various case study data, personal experiences, interviews, text observations, visuals that describe everyday meanings.

The data collected in this study are data on indicators or dimensions related to the role of agricultural extension workers and program empowerment. Variable (X) which is an independent variable consists of internal characteristics of farmers (X1) and external characteristics of farmers (X2). The dependent variable is the role of agricultural extension workers (Y1) which consists of: facilitator, motivator and communicator, while the impact is from the type of farmer capacity (Y2).

The data collected includes primary data and secondary data. Primary data was obtained using interview techniques based on questionnaires that had won previously. Secondary data obtained from documents, journals , theses, as well as supporting data sourced from related agencies, previous reports as well as from various sources of information from various parties such as local field extension officers and other parties related to this research. And this research instrument is in the form of a questionnaire which contains a list of structured questions relating to the variables to be studied . There are two independent variables and two dependent variables that are measured. The two independent variables are X1, namely the internal characteristics of farmers, and X2,

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namely external characteristics of farmers, while the dependent variable consists of Y1 regarding the role of agricultural extension workers and Y2 the type of farmer capacity.

Data analysis is an effort or method of processing data into information so that the characteristics of the data can be understood and useful for solving problems, especially problems related to research. Data analysis used in this research is descriptive qualitative analysis . Data obtained in the field were then analyzed to achieve the objectives of this study.

According to Siegel, S. (1997) this study used 3 categories, namely Agree, Doubt, and Disagree. The measurement category uses the class interval width formula, namely:

$$\text{Interval class} = \frac{\text{Reach}}{K}$$

Where Range: The difference between the highest and lowest values

K: Number of classes

RESULTS AND DISCUSSION

Characteristics of Farmers

The type of data used in this research is primary data. Primary data sources are taken directly by using questionnaires, interviews and direct observation in the field. Samples were taken using the *Random Sampling method (Probability Sampling)* with other farmers. Respondents in this study were paddy rice farmers in Waitoso Hamlet with a total sample of 30 people. Based on data from 30 rice farmers in Waitoso Hamlet through interviews, and questionnaires to find out the condition of the respondents regarding gender, age , level of education, and length of farming.

By Age

The characteristics of respondents based on age can be seen in the following table :

Table 1. Characteristics of Respondents by Age

Age Group	Number of people)	Percentage (%)
< 15 years	0	0
15 – 64 years	30	100
>64 years	0	0

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Total		30	

Data Source Processed, 2022

Based on Table 1 above regarding the characteristics of paddy rice farmers in Waitoso Hamlet based on age, it can be seen that the average age of paddy rice farmers in Waitoso Hamlet is in the productive age or ranges from 15-64 years with a total of 30 or 100%.

Based on Education Level n

Characteristics of respondents based on education level can be seen in the following table:

Table 2. Characteristics of Respondents by Education Level

Level of education	Number of people)	Percentage (%)
No school	0	0
SD	17	56,61
JUNIOR HIGH SCHOOL	5	16.65
SENIOR HIGH SCHOOL	8	26,64
Total	30	100

Source: Primary Data Processed, 2022

Based on Table 2 above, it can be seen that most of the rice farmers in Waitoso Hamlet who were respondents had the last education in elementary school, namely 17 people or 56.61%, 5 people in junior high school or 16.65%, and 8 people in high school. or by 26.64%. So lowland rice farmers with an average level of education last elementary school are the most.

Based on Being a Farmer

The data regarding the length of time being a farmer in this study is explained in the following table:

Table 3. Characteristics of Respondents Based on Length of Being a Farmer

Long Being a Farmer	Number of people)	Percentage (%)
Less than 10 years	4	13,32
11 – 20 years	11	36,63

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21 – 30 years	15	49.95
Over 30 years	0	0
Total	30	100

Source: Primary Data Processed, 2022

Based on Table 3 above, it can be seen that the lowland rice farmers in Waitoso Hamlet who have been farming for 21 to 30 years are 15 people or 49.95% , for respondents who have been farmers for 11 to 20 years are 11 people or 36 .63%, while for respondents who have been farmers for less than 10 years there are 4 people or 13.32%. So the average rice farmer in Waitoso Hamlet has been farming for 24 years.

Land Area Description

According to Sajogyo (1977) farmers are grouped into three categories, namely: small-scale farmers with a farm area of >0.5 ha , medium scale with a farm area of 0.5-10 ha, and large-scale farmers with a farm area of >10 ha. The data regarding the respondent's land area in this study is explained in Table 4 as follows:

Table 4. Characteristics of Respondents Based on Land Area

Land area	Number of people)	Percentage (%)
< 0.5 Hectares	30	100
0.6 – 0.9 Hectares	0	0
> 1 Hectare	0	0
Total	30	100

Source: Primary data processed, 2023

there are 30 rice farmers in Waitoso Hamlet who have a land area of ≤ 0.5 hectares .

The Role of Agricultural Extension

Extension Role as Facilitator

The role of extension workers as facilitators is that they help farmers to establish and develop farmer groups, assist farmer groups and act as intermediaries/mediators in resolving the problems being faced. This is in accordance with the statement of Narso et al. (2012) which states that the role of extension workers as facilitators includes facilitating the formation of farmer groups, accounting for farming, maximizing capital and facilitating the purchase of venture capital.

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The role of extension workers is facilitating farmers, identifying problems faced by farmers such as limited labor, capital, technology, supporting facilities and infrastructure owned by farmers.

The respondent's data regarding the role of extension workers as facilitators in this study are described in Table 5 as follows

Table 5. The Number and Percentage of Respondents Based on the Assessment Category of the Extension Role as a Facilitator

NO	Indicator	Per percentage	Category
	Agricultural extension workers help farmers to get good production inputs.	2.50	Agree
	Extension workers help farmers to get capital	2.60	Agree
	Extension workers help farmers to develop their agriculture	2.77	Agree
	Extension agents help farmers to market their produce	2.53	Agree
	Extension agents help farmers find partners for their farms	1.97	Doubtful
	Extension officers help farmers to work together with other farmers	2.70	Agree
	Extension officers assist farmers to gain access to the Department of Agriculture	2.20	Agree
	Extension officers help farmers make capital loans in related institutions (banks, cooperatives)	2.37	Agree
	Amount	**19,64**	**Agree**

Source: Primary data processed, 2023

Based on Table 5. It can be seen that the role of agricultural extension workers as facilitators in Waitoso Hamlet is relatively high and also extension workers are good at contributing to extension activities, especially in facilitating what is needed and providing assistance to farmers. There were only a few respondents who were dissatisfied because extension workers did not help farmers to find partners for their agriculture.

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The Role of Agricultural Extension As a Motivator

A motivator is a person who causes motivation in other people to do something, drives, drives, and officers appointed to provide light and enthusiasm to achieve a certain goal, (alwi in zaqiatul, 2012)

The role of the Agricultural Extension Officer is as a motivator, that is, the extension worker encourages farmers to continue to promote and improve the welfare of farmer groups, so that farmers want to change their way of thinking and working methods so that structure emerges and is willing to accept new farming methods that are more efficient and successful so that their lives are more prosperous. This is in accordance with the opinion of Narso et al. (2012) which stated that the role of agricultural extension as a motivator is to provide motivation or encouragement to farmers to always advance their farming business, encourage farmers to create their own farming technology or change and encourage farmers to become entrepreneurs.

The respondent's data regarding the role of the extension worker as a motivator in this study is explained in Table 6 as follows:

Table 6. Number and Percentage of Respondents based on the Assessment Category of the Extension Role as a Motivator

NO	Indicator	Per percentage	Category
1	Extension officers encourage farmers to continue to improve their performance	2.57	Agree
2	Extension agents encourage farmers to increase production	2.70	Agree
3	Extension officers encourage to develop the potential of farmers	2.10	Agree
4	Extension agents encourage farmers to modify (create new things/ideas)	2.20	Agree
5	Extension officers encourage farmers to want to use new technology	2.53	Agree
6	Extension agents encourage farmers to take part in training held by extension agents/agricultural services	2.30	Agree
7	Extension agents support the activities carried out by the farmers	2.30	Agree
	Amount	**16,7**	**Agree**

Source: Primary data processed, 2023

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Based on Table 6. It can be seen that the role of agricultural extension workers as a motivator in Waitoso Hamlet is relatively high and also contributes well to extension activities. With the role of agricultural extension as a motivator, farmers are more encouraged and motivated to continue running rice farming, although the trend is not always smooth.

The Role of Agricultural Extension As a Communicator

The role of existing agricultural extension workers is as communicators, namely agricultural extension workers who play a role in managing communication in the support of the latest technology and innovations, make good use of existing communication media, and play a role in building partnerships between farmers and extension workers or farmers with other parties. This is in accordance with the statement of Narso et al. (2012) which states that the role of extension workers as communicators, namely agricultural extension agents, has a role in managing communication innovation, a role in guiding network systems, a role in utilizing communication media, a role in face-to-face communication, and a role in building partnerships.

The respondent's data regarding the role of the extension worker as a motivator in this study is explained in Table 6 as follows:

Table 7. Number and Percentage of Respondents based on the Assessment Category of the Extension Role as a Communicator

O	Indicator	P rcentage _	Category
	Extension agents are able to communicate well with farmers	2.70	Agree
	Extension agents use print media in extension activities	2.77	Agree
	The instructor conveyed the importance of participating in counseling	2.47	Agree
	Extension workers have extensive knowledge about rice cultivation	2.67	Agree
	Extension officers prepare materials before conveying information about rice plants prior to extension activities	2.70	Agree
	Extension agents have good technical knowledge and practice during extension activities	2.13	Agree

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	Extension agents provide information that is easily understood by farmers	2.63	Agree
	Amount	**18.07**	**Agree**

Source: Primary data processed, 2023

Based on Table 7. It can be seen that the role of agricultural extension workers as communicators in Waitoso Hamlet is relatively high, because in their activities extension workers can communicate properly and correctly with farmers. Extension agents also have extensive knowledge about agriculture. The extension worker places the farmer's position on an equal footing so that the farmer feels comfortable when communicating and deliberating with the extensionist.

Farmer Empowerment Program

Farmer Development

According to Musanef (1991) Coaching is a process of using people, equipment, money, time, methods, and systems based on certain principles to achieve predetermined goals with maximum power and results.

The development of farmers in Waitoso Hamlet itself has been carried out by agricultural extension workers who conduct counseling in Waitoso Hamlet. So far, the farmers have felt very helped by the farmer empowerment program by extension agents, starting from rice field management to marketing.

" *With farmer coaching, I can have additional knowledge , even if it's only a little* , *because previously I already had another basic knowledge* " (Interview of paddy rice farmer : Mr. A 56 years)

In order to increase the knowledge and skills of lowland rice farmers, extension agents must also carry out training carried out by agricultural extension workers. In order to produce agricultural products that have a selling value that is more than conventional agricultural products, it is necessary to provide training for farmers. One example is how farmers can produce agricultural products that are of interest to the market because of the benefits in the health sector and for farmers to have higher prices.

"After I took part in the coaching conducted by the extension workers, I was able to find out many *things and I was immediately able to practice them in the field, even though I still lacked a lot, but that was enough for me" (* Interview of paddy rice farmer : Mr. T, 38 years)

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Farmers

According to Sugiyono (2009) farmer groups are groups of farmers who grow based on familiarity and harmony, as well as common interests in utilizing agricultural resources to work together to increase farming productivity and the welfare of its members, where the function of these farmer groups is as a teaching and learning class, as a production unit. , as a vehicle for cooperation and as a business group.

Farmer groups are groups of farmers who join and work together in increasing the scale of the economy and business efficiency. Paddy rice farmers in Waitoso Hamlet itself have two farmer groups, namely the Sido Makmur farmer group which is chaired by Pak and Suka Maju which is chaired by Pak which was established in 2016 and is still running well today. The rice farmers of Waitoso Hamlet feel very helped by the existence of the farmer group so that they feel their work is easier because they are assisted by members of other farmer groups.

> *" With the farmer group I really feel helped, in contrast to the time when I was not yet in the farmer group I did the work myself and occasionally was assisted by my own wife"* (rice field farmer : Mr. R 47 years)

Every farming business will certainly face risks, including lowland rice. In carrying out the activities of lowland rice farmers in Waitoso Hamlet, the risk that is usually faced is the risk of a shortage of manpower, but with the farmer groups all work related to lowland rice farming is very easy to do because the members of the farmer groups help each other farmers start from processing rice fields, cultivation to harvest time.

> " *At first I felt it was hard to look after the rice in my rice fields, but with this farmer group I felt that all the work became easy because I was assisted by the farmers in my group" (field rice farmer interview* : Mr. F 55 years)

Before the existence of farmer groups, farmers experienced difficulties, both processing the fields up to the harvest period. Usually farmers hire farmers or ask for help from other farmers . Farmers feel embarrassed (embarrassed) because it is done continuously. The farmers no longer have to look for and hire workers to help them because they are already members of a farmer group which consists of several other farmer members who already have close relationships and interactions among group members.

According to Mubyarto (1994) Local organizations are groups that grow from below. This group provides the greatest opportunity for those involved to help each other in solving problems. By coordinating economically the burden borne by a person who builds a condition will be reduced. This reciprocal principle seems to have been well

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received among the villagers and it is important to note that most farmers or residents are easily involved in this organizational structure.

Based on the results of the research, it can be seen that the formation of paddy rice farmer groups in Waitoso Hamlet is very helpful for cooperation that is built between farmers and other farmer members. The cooperation built has an impact on farmer satisfaction where the average farmer is satisfied with the cooperation built within the group.

CONCLUSION

Based on the description of the results and discussion above, it can be concluded that:

Extension Role

The role of agricultural extension workers as facilitators in Waitoso Hamlet is categorized as high and extension workers are also good at contributing to extension activities, especially in facilitating what is needed and providing assistance to farmers. There were only a few respondents who were dissatisfied because extension workers did not help farmers to find partners for their agriculture.

The role of agricultural extension as a motivator in Waitoso Hamlet is categorized as high and also contributes well to extension activities. With the role of agricultural extension as a motivator, farmers are more encouraged and motivated to continue running rice farming, although the trend is not always smooth.

The role of agricultural extension workers as communicators in Waitoso Hamlet is high, because in their activities extension workers can communicate properly and correctly with farmers. Extension agents also have extensive knowledge about agriculture. The extension worker places the farmer's position on an equal footing so that the farmer feels comfortable when communicating and deliberating with the extensionist.

Farmer Empowerment Program

The development of lowland rice farmers carried out by agricultural extension workers was very useful and very helpful for lowland rice farmers in Waitoso Hamlet, so that lowland rice farmers learned a lot and implemented the knowledge obtained from the extension workers.

The formation of a lowland rice farmer group in Waitoso Hamlet is very helpful for the cooperation that is built between farmers and other farmer members. The cooperation

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built has an impact on farmer satisfaction where the average farmer is satisfied with the cooperation built within the farmer group.

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