

## PERFORMANCE ANALYSIS OF AGRICULTURAL EXTENDERS IN NORTH ACEH DISTRICT

Nur Aini<sup>1</sup> Eva Wardah<sup>2</sup>, Setia Budi<sup>3</sup>, Hafni Zahara<sup>4</sup>

<sup>1</sup>Mahasiswa Agribisnis, Fakultas Pertanian, Universitas Malikussaleh, Aceh Utara

<sup>2,3,4</sup>Dosen Program Studi Agribisnis, Fakultas Pertanian, Universitas Malikussaleh, Aceh Utara

E-mail: [evawardah@unimal.ac.id](mailto:evawardah@unimal.ac.id)

### Abstract

*The performance of agricultural extension workers is the result of work achieved by agricultural extension officers in North Aceh Regency in accordance with the duties and responsibilities given to him for the achievement of agricultural extension goals that have been set. This study aims to analyze the performance of agricultural extensionists in North Aceh district and to determine the relationship of extension characteristics with the performance of agricultural extension in North Aceh Regency. The analysis method used is descriptive qualitative and quantitative. The results showed that the performance of agricultural extension is in North Aceh District was very good with an average index value of 81.32%. There are two significant relationships between the characteristics of extension, namely the age and working period of the extension with the performance of extension workers at the stage of agricultural extension preparation with a significant value below 0.05 which is 0.039. The correlation coefficient is negative (-) which means that there is an indirect relationship between the age and working life of the extension and the performance of the extension.*

*Keywords: Performance, Agricultural Extension, farmers*

### 1. INTRODUCTION

Indonesia as an agricultural country has abundant and varied natural wealth, making agriculture one of the most strategic sectors in supporting the national economy. However, the agricultural sector from the colonial era until now (free trade) has not fully progressed. This is proven by the fact that there is still a large amount of food imported from other countries and the low exchange rate of agricultural commodities which has an impact on the low income of farmers. Existing farmers who generally cultivate agriculture in rural areas have not experienced prosperity, it can be seen from the poverty rate in rural areas which is higher than with urban areas. Based on data from the Central Statistics Agency (BPS, 2017), poverty in rural areas reached 13.47%, while in urban areas it was 7.26%.

Agricultural development as an integral part of agricultural development is an effort to empower farmers and other agricultural business actors to increase their productivity, income and welfare. For this reason, agricultural extension activities must be able to accommodate the aspirations and active role of farmers and other agricultural business actors through a participatory approach. The development of agricultural development in the future needs to pay special attention to agricultural extension, because agricultural extension is one of the strategic activities in an effort to achieve agricultural development goals. Through extension activities, farmers' abilities are improved so they can manage their farming businesses productively, efficiently and profitably so that farmers and their families can improve their welfare.

Agricultural development is a policy tool that the government can use to encourage agricultural development. On the other hand, farmers have the freedom to accept or reject suggestions given by agricultural extension agents. Thus, extension workers can only achieve their targets if the desired changes are in accordance with farmers' needs. Ilham 2010 in Harisan Ali (2017).

Therefore, the performance of extension workers must also be considered in efforts to increase the potential of the agricultural sector, this is to overcome various problems in the existing

## PERFORMANCE ANALYSIS OF AGRICULTURAL EXTENDERS IN NORTH ACEH DISTRICT

Nur Aini<sup>1</sup>, Eva Wardah<sup>2</sup>, Setia Budi<sup>3</sup>, Hafni Zahara<sup>4</sup>

agricultural sector. Many factors influence the performance of agricultural instructors in carrying out their functional duties as a professional job, including effectiveness and efficiency, authority and responsibility, discipline and initiative (Prawisentono, 1999).

It can be seen that the current extension activities are not running as expected. The lack of agricultural extension workers, the many tasks of agricultural extension workers are not commensurate with the managerial abilities of extension workers who have not been able to advance farmer groups such as developing leadership, entrepreneurship and managerial abilities of farmers. Despite the limitations and shortage of instructors, good performance of agricultural instructors is a dream for the success of agricultural development in Indonesia.

North Aceh Regency is one of the regencies located in Aceh Province, where the majority of the people make their living as farmers. In general, farmers in North Aceh have not fully experienced prosperity in cultivating agriculture, this is due to a lack of knowledge of cultivation facilities and infrastructure as well as the slow delivery of information to farmers. Therefore, the role of extension workers is needed in an effort to improve the standard of living of farmers in North Aceh Regency, Aceh province.

Field Agricultural Officers (PPL) are officers from the North Aceh District Agriculture Service who were formed to provide direction, guidance and counseling in the agricultural sector on a sub-district administrative basis. The number of extension workers in North Aceh Regency in year 2019, namely 279 people consisting of 99 civil servant instructors, 79 THL-TBPP instructors and 101 self-help instructors with a total of 852 villages in North Aceh Regency. From these data, it can be seen that the number of agricultural extension workers does not meet the requirements of one village, one extension worker in accordance with the revitalization of extension services. For more details, the number of agricultural instructors in North Aceh Regency can be seen in the following table:

No	Kecamatan	Penyuluh			Jumlah (orang)
		PNS	THL/TBPP	Swadaya	
1	Baktiya	5	4	5	14
2	Baktiya Barat	2	3	5	10
3	Paya Bakong	3	5	4	12
4	Kuta Makmur	5	4	3	12
5	Langkahan	2	1	4	7
6	Lhoksukon	7	8	5	20
7	Matangkuli	3	7	5	15
8	Meurah Mulia	6	4	6	16
9	Muara Batu	5	1	3	9
10	Nibong	4	2	5	11
11	Nisam	7	3	7	17
12	Syamtalira Aron	4	2	2	8
13	Samudera	4	4	3	11
14	Sawang	5	4	12	21
15	Seunudon	2	4	4	10
16	Simpang kramat	5	2	2	9
17	Syamtalira bayu	5	2	3	10
18	Tanah jambo Aye	4	5	2	11
19	Banda Baro	4	0	1	5
20	Cot Girek	4	2	3	9
21	Dewantara	3	1	3	7
22	Geurudong Pase	2	1	3	6
23	Lapang	3	2	4	9
24	Pirak Timur	1	4	3	8
25	Tanah Luas	4	4	4	12
26	Nisam Antara	0	0	0	0
27	Tanah Pasir	0	0	0	0

The problem faced so far by agricultural instructors in serving farmers is that one extension agent has the dominant area of more than one village, even so far in North Aceh Regency, one instructor has been in charge of 5 (five) to 6 (six) villages at once to provide extension activities for farmer. In this case, the general condition of agricultural extension workers in North Aceh district also has various other problems, including: 1) the distribution of agricultural extension workers is uneven and is more dominant in food crops, 2) operational costs for agricultural extension workers provided by the districts/cities are not yet adequate, 3) not all villages have extension workers.

A person's performance is usually closely related to their characteristics. The better a person's characteristics, the higher his performance will be. This can happen because characteristics will have a positive impact on a person in achieving performance. Likewise with agricultural extension workers, the higher their characteristics, the better their performance. The characteristics of instructors include age, formal education and length of service for agricultural instructors in the district. North Aceh. Researchers are interested in conducting research on performance analysis of agricultural instructors in North Aceh Regency, Aceh Province.

### 3. IMPLEMENTATION METHOD

This research was carried out at the Agricultural Extension Center (BPP) office in North Aceh Regency and the area supported by the Agricultural Extension Center in North Aceh Regency, Aceh Province. The population in this research is the superiors of Field Agricultural Instructors (PPL) in North Aceh Regency, namely 25 superior instructors or heads of Agricultural Extension Centers located in 25 offices.

The sampling method in this research is using a purposive sampling method from 25 offices of the Agricultural Extension Center (BPP), selected 6 BPP offices with the highest number of extension workers in North Aceh Regency. farmers. Respondents from the BPP office were 6 (six) people. Two farmer respondents were selected, consisting of heads of farmer groups/farmer group members from 6 (six) target areas, so the number of farmer respondents taken was 12 people. Thus, the total number of respondents in this study was 18.

The data analysis method in this research uses qualitative and quantitative analysis. The qualitative descriptive method is analyzing questions based on answers from respondents. The data that has been collected in the research is first applied through a questionnaire. Then to measure the performance of agricultural instructors, namely by using a Likert scale measuring instrument using three indicators, namely preparation of agricultural extension, implementation of agricultural extension, evaluation and agricultural extension reporting.

In this study, a 4 point Likert scale with 4 scale options was used in the following format;

Table 2. Measurement Using a Likert Scale

N	Answer	Score	Explanation
1.	1	1	Very Bad
2.	2	2	Not Good
3.	3	3	Good
4.	4	4	Very Good

Ssource: Natsir, 2013

According to Natsir (2013) and Taufikurrahman (2023), to calculate the total score for each item and the total score for each question asked, use the following formula:

$$T \times P_n$$

Information:

T = Total number of respondents who voted

Pn = Choice of Likert score numbers

Interrupt next, to get the interpretation results, you must know the highest score (Y) and the lowest number (X), using the formula:

Y = Highest Likert score x number of respondents x number of questions

X = Lowest Likert score x number of respondents x number of questions

The interpretation value of the performance of agricultural instructors in NorthAceh Regency is by using the index value formula: Index Value % = Total Score/ Y x 100 = score category

To find out the location of the index value, first determine the interval/distance. The method for finding the percent score interval (I) is as follows (Natsir, 2013):

$$I = 100 \% - 25 \%$$

$$= 75$$

$$I = 18.75$$

value (I) then the interval used is as follows:

In this study, the score interpretation criteria are based on the following intervals:

1. 25%-43.74%= Very Bad
2. 43.75% - 62.40%=Not Good
3. 62.41% - 81.24%= Good
4. 81.25%- 100% = Very Good

Under the condition:

1. If the index value is in the interval 25% - 43.74% then the performance of agricultural instructors in North Aceh Regency is very Bad
2. If the index value is in the interval 43.75% - 62.40% then the performance of extension workers in North Aceh Regency is not good
3. If the index value is in the interval 62.41% - 81.24% then the performance of agricultural instructors in North Aceh Regency is good
4. If the index value is in the interval 81.25% - 100% then the performance of agricultural instructors in North Aceh Regency is very good.

The quantitative descriptive method for analyzing the relationship between instructor characteristics and the performance of agricultural instructors in researchers uses the Spearman Rank Correlation Test analysis. The researchers use the Spearman Rank Correlation Test to determine whether or not there is a relationship between instructor characteristics and the performance of agricultural instructors.

#### 4. RESULTS AND DISCUSSION

The research results obtained from direct interviews with superior agricultural instructors (head of BPP) and heads/members of farmer groups at the research location show that the performance of agricultural instructors in North Aceh Regency is in the very good category. Details of the percentage level of analysis variables based on, Preparation of Agricultural Extension, Implementation of Agricultural Extension and Evaluation and Reporting of Agricultural Extension can be seen in table 3 below:

Table 3. Results of analysis of the performance of agricultural instructors in North Aceh Regency

No	Variabel	Index (%)	Category
1	Prepared for Agricultural Extension	87.03	Very Good
2	Agricultural Extension activities	80.55	Good
3	Evaluation and Reporting	76.38	Good
Total		81.32	Very Good

Source: Primary Data (2022)

### 1. Preparation for Extension Agriculture

PerAgricultural extension preparation is an initial process carried out by extension agents before carrying out agricultural extension activities. At this stage, the instructor first makes plans for extension activities, to make it easier to carry out activities and achieve the expected goals.

The results of the research show that the supervisor's assessment of the performance of agricultural instructors in North Aceh Regency at the agricultural extension preparation stage is Very Good (Index value = 85.41%). This is proven because the extension workers at the research location have made plans for extension activities and made data on the potential of their target areas, as well as made activity plans in each area (Annual Work Plan for Agricultural Instructors) and prepared agricultural extension programs according to the needs of farmers in the field. Apart from that, Extension workers at research locations also play an active role in guiding or directing farmers in preparing RDKK for farmer groups in their target areas.

### 2. Implementation of Agricultural Extension

The implementation of extension activities carried out by extension workers at the research location is like regular meetings held in the target areas such as at the homes of willing farmer group members once a week. Then the extension workers also make a schedule of visits to each target area individually or in groups, both at home the farmers live or where the farmers carry out their daily activities. Next, the instructors at the research location provide extension materials to farmers in their target areas, adjusted to the conditions of the farmer groups/farmers in each target area of each work area. Extension agents also always make RKTPs in the areas of the farmer groups they support.

### 3. Evaluation and Reporting

Evaluation is the final stage of agricultural extension activities carried out by extension workers to the farmer groups they support. Based on the results of research that has been carried out at research locations, extension workers have carried out evaluation and reporting activities on each activity that has been carried out. Regarding the evaluation carried out by agricultural instructors at the research location, the instructors are guided by reports on the results of extension activities that have been prepared by the instructors. Then the final results of the extension activities are expressed in written form in the form of a report called an evaluation report.

The results of the research show that the supervisor's assessment of the performance of agricultural instructors in North Aceh Regency in terms of evaluating and reporting agricultural extension is Good (Index Value = 76.38%), which means that the instructors at the research location have carried out evaluation and pioneering activities well. As an instructor, this activity must be carried out so that instructors can know future strategies in overcoming and resolving all the problems that have occurred. So that later the process of agricultural extension activities can

## PERFORMANCE ANALYSIS OF AGRICULTURAL EXTENDERS IN NORTH ACEH DISTRICT

Nur Aini<sup>1</sup>, Eva Wardah<sup>2</sup>, Setia Budi<sup>3</sup>, Hafni Zahara<sup>4</sup>

run well and smoothly. With this evaluation report, it is hoped that it will be easier for instructors to identify which programs have not been achieved in accordance with the extension that has been planned.

### Correlation Characteristics of Extension Officers and Performance of Extension

The results of the Spearman Rank Correlation analysis between the characteristics of instructors and the performance of agricultural instructors can be seen in the table. The variables for the characteristics of the instructor are age, education and length of service. Meanwhile, the variables for the performance of the instructor are preparation for agricultural extension, implementation of agricultural extension and evaluation and reporting of agricultural extension. The following data on the relationship between the characteristics of the instructor and the performance of the agricultural instructor in North Aceh district can be seen in the table. following;

Table 3. Relationship between instructor characteristics and instructor performance

Characteristics of Extension		Performance of Extension		
		Preparation Counseling Agriculture	Implementation Counseling Agriculture	Evaluation and Reporting
Umur	Correlation Coefficient	-.833*	.516	-.393
	† Sig. (2-tailed)	.039	.295	.441
	N	6	6	6
Pendidikan Formal	Correlation Coefficient	.270	-.125	.539
	† Sig. (2-tailed)	.605	.813	.269
	N	6	6	6
Masa Kerja	Correlation Coefficient	-.833*	.395	-.393
	† Sig. (2-tailed)	.039	.439	.441
	N	6	6	6

Ssource: Primary data processed (2021)

Table 3 shows that there is a significant relationship between the age of the instructor and the performance of the instructor in preparation for agricultural extension, which is seen at the 95 percent level, with a significant value of  $0.039 < 0.05$ . The correlation coefficient is negative (-) meaning that there is a unidirectional relationship between the factors. age and the performance of instructors at the preparation stage for agricultural extension. Based on the results of research conducted by researchers, the average age of instructors at the research location is over 45 years. Some of the extension workers are approaching retirement. Based on this, the fact that the



instructor's age is getting older does not mean that an instructor has better knowledge or knowledge compared to instructors who are younger. Because younger instructors tend to have a better grasp and memory of new information compared to older ones.

There is no significant relationship between the instructor's age factor and the instructor's performance in the implementation of agricultural extension, which can be seen at the 95 percent confidence level, with a significant value of  $0.295 > 0.05$ . The correlation coefficient is positive (+) meaning there is a unidirectional relationship between the age factor and the implementation of agricultural extension. This shows that the higher the age of the instructor, the better the instructor's performance in carrying out extension activities.

There is no significant relationship between the instructor's age factor and the instructor's performance in evaluating and reporting agricultural extension, which is seen at the 95 percent confidence level, with a significant value of  $0.441 > 0.05$ . The correlation coefficient is negative (-) meaning that there is a unidirectional relationship between the age factor and the evaluation and reporting of agricultural extension. Based on the results of research conducted by researchers, the average age of instructors at the research location is over 45 years. And there are some instructors who are approaching retirement. Based on this, the fact that the instructor's age is getting older does not mean that an instructor has better knowledge or knowledge compared to instructors who are younger. Because younger instructors tend to have a better grasp and memory of new information compared to older ones.

The education sector also does not have a significant relationship with the performance of instructors in preparation for agricultural extension, which is seen at the 95% confidence level, with a significant value of  $0.605 > 0.05$ . The correlation coefficient is positive (+) meaning that there is a unidirectional relationship between educational factors and the performance of instructors. This shows that the higher the instructor's education, the better the instructor's performance in terms of preparation for agricultural extension.

There is no significant relationship between educational factors and the performance of instructors in the implementation of agricultural extension, which can be seen at the 95 percent confidence level, with a significant value of  $0.813 > 0.05$ . The correlation coefficient is negative (-) meaning that there is a unidirectional relationship between educational factors and the performance of instructors in the implementation of agricultural extension. This shows that based on research results, education of extension workers does not guarantee good performance in providing extension services to farmers. However, experience is much more important for an agricultural instructor in providing counseling to farmers.

There is no significant relationship between educational factors and the performance of instructors in the evaluation and reporting of agricultural extension, which is seen at the 95 percent confidence level, with a significant value of  $0.269 > 0.05$ . The correlation coefficient is positive (+) meaning that there is a unidirectional relationship between educational factors and the performance of instructors. This shows that the higher the instructor's education, the better the instructor's performance in terms of evaluating and reporting agricultural extension.

There is a significant relationship between the length of service of the instructor and the performance of the instructor in preparation for agricultural extension, which is seen at the 95 percent level, with a significant value of  $0.039 < 0.05$ . The correlation coefficient is negative (-) meaning that there is a unidirectional relationship between work experience and the performance of instructors at the preparation stage for agricultural extension. This is in line with the research results of Mujiburrahman (2014) where the characteristics of length of work experience influence the performance of agricultural instructors.

Based on the results of research conducted by researchers, the working period of extension workers in North Aceh district is dominated by an average of over 21 years, meaning that even though they have worked as extension workers for a long time, they still lack experience in carrying out their work.

PERFORMANCE ANALYSIS OF AGRICULTURAL EXTENDERS IN NORTH ACEH DISTRICT

Nur Aini<sup>1</sup>, Eva Wardah<sup>2</sup>, Setia Budi<sup>3</sup>, Hafni Zahara<sup>4</sup>

There is no significant relationship between the length of service of the instructor and the performance of the instructor in the implementation of agricultural extension, which can be seen at the 95 percent confidence level, with a significant value of  $0.439 > 0.05$ . The correlation coefficient is positive (+) meaning there is a unidirectional relationship between work experience and the implementation of agricultural extension. This shows that the longer the extension period of service, the better the performance of the extension agent in carrying out extension activities.

Likewise, there is no significant relationship between the length of service of the instructor and the performance of the instructor in the evaluation and reporting of agricultural extension, which is seen at the 95 percent level, with a significant value of  $0.441 < 0.05$ . The correlation coefficient is negative (-) meaning that there is a unidirectional relationship between length of service and the performance of instructors in agricultural extension evaluation and reporting. Based on the results of research conducted by researchers, the working period of extension workers in North Aceh district is dominated by an average of over 21 years, meaning that even though they have worked as extension workers for a long time, they still lack experience in carrying out their work.

## 5. CONCLUSION

The results of research and the results of data analysis that have been carried out on the performance of agricultural instructors in North Aceh Regency, it can be concluded that:

1. The performance of agricultural instructors in North Aceh District is in the very good category with an average index value of 81.32%.
2. There are two significant relationships between the characteristics of age, length of service and the performance of instructors at the preparation stage for agricultural extension in Kab. North Aceh. Meanwhile, the implementation and evaluation factors of extension were not significantly related.

## REFERENCES

- Ardita et al 2017. Performance of Agricultural Instructors According to Farmers' Perceptions in Landak Regency. *Journal of Vocation and Career Education* 2.
- Bahua M I. 2016. Performance of Agricultural Extension Officers, Edition 1. Yogyakarta. Deepublish CV. Budi Utama.
- Bahua, M.I. (2010). Factors that influence the performance of agricultural instructors and their impact on the behavior of corn farmers in Gorontalo Province. 3(April), 1–137.
- North Aceh District Agriculture Service. 2019. Recap of Agricultural Extension Instructors at District Level, Aceh Province, North Aceh Regency. North Aceh Agricultural Service.
- Harisan Ali et al. 2017. Farmers' Perceptions of the Performance of Field Agricultural Instructors in Talumelito Village, Telaga Biru District, Gorontalo Regency. *Agrinesia Journal* Vol. 2 No. 2. Gorontalo State University.
- Natsir, F. 2013. How to Calculate the Likert Scale. [accessed 22 February 2023] <https://katadata.co.id/agung/lifestyle/6492a0d1a4b93/pengertian-rumus-dan-cara-menghitung-skala-likert>
- Mujiburrahmad. (2014). Performance of agricultural instructors in Pidie Regency, Aceh Province in carrying out their duties and functions, *Extension Journal* Vol 10 (2) IPB, Bogor
- Prewisentono, Suryadi. 1999. Employee Performance Policy. Yogyakarta: BFFE.
- StatIndonesian sticks. 2018. About: Poverty Line, Number and Percentage of Poor Population 2017-2018. Indonesian Central Statistics Agency.
- Taufiqurrahman. 2023 How to Calculate a Questionnaire with a Likert Scale, (accessed 22 July 2023] <https://saintekmu.ac.id/myblog/taufiqurrachman/read/cara-hitung-kuesioner-pada-skala-likert>.