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AGRICULTURAL EXTENSION DURING THE NEW NORMAL ERA

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ABSTRACT

Since the outbreak of COVID-19 in 2020, the pandemic has seriously impacted agriculture sectors. Coffee farmers are one of the groups significantly affected by this pandemic. In addition, agricultural extension, as one of the essential instruments in improving farmers' knowledge and skills, faces new challenges in providing services after the pandemic ends. This study examines the condition of agricultural extension after the Covid-19 pandemic in Malang Regency from the aspects of extension planning, extension materials, methods, media, and extension evaluation. The research was conducted in AMSTIRDAM sub-districts of Malang Regency. This research used a quantitative descriptive method. The research respondents were 97 coffee farmers randomly selected from 2622 coffee farmers. Primary data were obtained through observation, questionnaire distribution, and respondent interviews. Secondary data were obtained from the Agricultural Extension Office. The results showed that during the COVID-19 pandemic or the new normal era, agricultural extension officers continued to develop programs together with farmers even though it was done without face-to-face interaction (online). Agricultural extension workers also continue to facilitate the preparation of RDKK. During the COVID-19 pandemic, agricultural extension workers conveyed more information about capital. The extension method and media use an indirect approach and the use of social media. In addition, agricultural extension workers also continue to evaluate the impact of counseling during the pandemic. It can be concluded that agricultural extension workers continue to carry out extension activities for farmers even with various adjustments during the COVID-19 pandemic by implementing strict health protocols, including reducing face-to-face activities.

Keywords: *agricultural extension, COVID-19, new normal*

BACKGROUND

The COVID-19 pandemic has been a profound global event in recent history. Since its outbreak in 2020, the pandemic has seriously impacted various sectors, including agriculture. Coffee farmers are among the groups significantly affected by this pandemic, including coffee farmers in Malang District (Nurjati, 2021). Coffee is a high-value commodity, and fluctuations in coffee prices can have a significant impact on coffee farmers' income. Coffee farmers heavily dependent on coffee exports may face challenges due to disruptions in international trade during the pandemic.

The majority of the most extensive coffee plantations in Malang Regency are in the Ampelgading, Tirtoyudo, Sumbermanjing Wetan, and Dampit sub-districts, or AMSTIRDAM for short. The presence of covid-19 disrupts the farming activities of coffee farmers in AMSTIRDAM. The impact of the Covid-19 pandemic on coffee farmers includes a decrease in income, difficulty in

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meeting daily living needs, an increase in production costs, and difficulty in marketing crops due to social restrictions and market closures (Fambudi & Wahyudi, 2022; Rhiney et al., 2021; Sapbamrer et al., 2022).

Agricultural extension is important in dealing with the COVID-19 pandemic (Suwuh et al., 2021; Wibowo & Haryanto, 2020). Agricultural extension can help coffee farmers to remain productive and safe during the pandemic, improve farmers' skills, increase access to resources, and improve farmers' welfare. Before the Covid-19 pandemic, agricultural extension officers in AMSTIRDAM routinely conducted direct counseling to coffee farmers through field visits, meetings, and group discussions. However, face-to-face counseling activities were not carried out during the pandemic due to social restrictions. The COVID-19 pandemic has affected agricultural extension in several ways. First, due to social restrictions and bans on public gatherings, farmers' direct access to agricultural extension services is limited. Extension workers cannot travel and reach farmers to provide agricultural advice (Bright et al., 2021). Face-to-face methods such as meetings, lectures, and demonstrations are not feasible due to restrictions on meetings involving many people (Indraningsih et al., 2020; Wibowo, 2020).

After entering the New Normal period, there are threats, challenges, and opportunities in implementing agricultural extension. The new normal threatens conventional extension methods: individual, group, and mass visits. Traditional methods of direct meetings between extension workers and farmers are an opportunity for the spread of the COVID-19 virus, so health protocols must be implemented. However, the impact of the pandemic also means opportunities for the utilization of information technology in agricultural extension. Informatics and communication are increasingly important to extension competencies in facilitating farmers' access to information (Ar-Rozi et al., 2020; Indraningsih et al., 2020). This study examines how the covid-19 pandemic affects agricultural extension activities for coffee farmers in Malang Regency, especially in ASTIRDAM, in the aspects of extension planning, selection of extension materials, determination of extension methods and media, and extension evaluation. This resulted in specific recommendations on how agricultural extension activities can be adapted to the post-COVID-19 pandemic conditions.

RESEARCH METHODS

This study uses a quantitative approach using survey methods. Malang Regency is one of the coffee-producing districts in Indonesia, and this research was conducted in Ampel Gading, Tirtoyudo, Sumbermanjing Wetan, and Dampit (AMSTIRDAM) sub-districts which are four sub-districts that are coffee production centers in Malang Regency. The research population is coffee farmers who are members of farmer groups in AMSTIRDAM, totaling 2622 people. Using the Yamane formula, the number of research respondents was 96 people randomly selected.

The variables of this research are the extension planning, selection of extension materials, determination of extension methods and media, and extension evaluation. According to Law No. 16/2006 on the Agricultural, Fisheries, and Forestry Extension System, the research variables were determined based on the elements of extension. This study's type of data consists of primary and secondary data. Primary data comes from respondents' answers to research variables obtained through questionnaires and interviews. Secondary data was obtained from the Agricultural Extension Center in the form of an Agriculture Extension Program. The data analysis technique uses descriptive analysis. Descriptive analysis techniques aim to explain the collected data by describing, grouping,

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and classifying into tables, which are then explained based on the most dominant and weakest indicators.

The research data was obtained from the respondents' answers to the questions on the research questionnaire. This section presents the frequency distribution of the scores of each variable item and the mean of each variable item. To describe the average value of each item, indicators, and research variables are used with the class interval criteria obtained. The score of the respondents' answers in the study referred to the 4-point scale of the Likert scale, so the highest respondent's answer value was 4, and the lowest answer value was 1. The number of classes/categories used in preparing the criteria was adjusted to the scale used for four (4) classes, so the class interval is (4-1): 4 = 0.75. The basis for interpreting the average value in this study refers to interpreting the score according to Sujana (2005) and Kuncoro (2007). Thus, the criteria for describing the Mean value obtained for each item, indicator, and variable can be seen in Table 1.

Table 1. Basic Interpretation of Indicator Scores in Research Variables

No	Score / Score	Interpretation
1	1.00 - 1.74	Very low / Poor
2	1.75 - 2.49	Low / Not good
4	2.50 - 3.24	High / Good
5	3.25 - 4.00	Very High / Very Good

RESULT AND DISCUSSION

Agricultural Extension Planning in the New Normal Era

Planning variables are measured using 6 question items. Each answer has a value, and then the answer score is accumulated and used to categorize variables based on the average respondent's answer. The frequency distribution of respondents' responses to the Planning variable can be seen in Table 2.

Table 2. Distribution of Respondents' Responses to Agricultural Extension Planning in the New Normal Era

No	Items Agriculture Extension Planning		Answer Choices				Means	Category
			Strongly Agree	Agree	Disagree	Strongly Disagree		
1	Formulation of extension programs together with farmers directly	F	8	40	33	15	2.43	Low
		%	8.3	41.7	34.4	15.6		
2	Preparation of extension programs together with farmers indirectly or online	F	20	62	12	2	3.04	High
		%	20.8	64.6	12.5	2.1		
3	Extension workers Facilitate the preparation of the Group Needs	F	18	65	12	1	3.04	High
		%	18.8	67.7	12.5	1.0		

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	Definitive Plan (RDKK)							
4	Group meetings are still held together with extension workers	F %	6 6.3	45 46.9	43 44.8	2 2.1	2.57	High
5	Group meetings are still held without extension workers	F %	4 4.2	42 43.8	44 45.8	6 6.3	2.46	Low
6	Continue to carry out MUSREMBANG activities	F %	5 5.2	37 38.5	50 52.1	4 4.2	2.45	Low

Table 2 presents respondents' responses regarding planning variables in agricultural extension activities. Based on respondents' answers, it can be seen that the indicator with the highest average of 3.04 (classified in the high category), which is the most dominant, is the indicator of extension program planning carried out together with farmers and extension workers indirectly (online). Extension workers still facilitate farmers in the preparation of the Definitive Plan of Group Needs (RDKK). The majority of respondents agreed with this. In the AMSTIRDAM region, extension workers utilize various social media as a tool for communication. One of the most commonly used methods is WA groups. Extension workers and farmers conduct discussions and sharing related to planning extension activities through the WA Group by expressing problems and proposing the need for agricultural innovation. Then the extension workers formulate the inputs and results of these discussions into the matrix of the agricultural extension program. Meanwhile, RDKK is a formulation tool to meet the needs of production facilities and agricultural machinery. The preparation of RDKK is a strategic activity that must be carried out simultaneously and on time, so a movement is needed to encourage Poktan to prepare RDKK correctly and follow the needs of farmers. Farmers' ability to prepare RDKK is still limited, so agricultural extension workers must assist and guide Farmer's Group.

The planning of agricultural extension programs conducted by extension workers with farmers through direct meetings has the lowest average value (low category) of 2.43. This is due to social restrictions that cause limitations on activities that involve many people to prevent the spread of the Covid-19 virus. Some of the impacts of the covid-19 pandemic on extension program planning include communication barriers due to restrictions on travel and public meetings. Farmers have limited direct access to agricultural extension services. So, agricultural extension services may have to plan their programs, assuming there will be more virtual than face-to-face interactions (Bright et al., 2021).

Agricultural Extension Material in the New Normal Era

Material Variables are measured using 6 question items. Each answer has a value, and then the answer score is accumulated and used to categorize variables based on the average respondent's answer. The frequency distribution of respondents' responses to the Material variable can be seen in Table 3.

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Table 3. Distribution of Respondents' Responses to Agricultural Extension Material in New Normal Era

No	Agriculture Extension Material		Answer Choices				Means	Category
			Strongly Agree	Agree	Disagree	Strongly Disagree		
1	Coffee plant cultivation	F	8	59	29	0	2.78	High
		%	8.3	61.5	30.2	0.0		
2	Coffee post-harvest handling	F	10	70	16	0	2.94	High
		%	10.4	72.9	16.7	0.0		
3	Coffee product processing	F	11	69	16	0	2.95	High
		%	11.5	71.9	16.7	0.0		
4	Coffee marketing	F	23	64	8	1	3.14	High
		%	24.0	66.7	8.3	1.0		
5	Capital	F	27	59	9	1	3.17	High
		%	28.1	61.5	9.4	1.0		
6	Coffee Business Management	F	14	72	10	0	3.04	High
		%	14.6	75.0	10.4	0.0		

According to Law No. 16/2006 on the Agricultural, Fisheries, and Forestry Extension System, extension materials are materials delivered by extension workers to farmers which are based on the needs and interests of farmers. Table 3 shows respondents' responses to agricultural extension materials in the new normal era. Based on the respondents' answers, it can be seen that the material on capitalization has the highest average (mean) of 3.17 (classified in the high category). This is because, during the pandemic, farmers in AMSTIRDAM had great difficulty in marketing their coffee, thus reducing the income of coffee farmers. Coffee farmers need additional capital to obtain agricultural materials such as fertilizers and seeds for cultivating crops other than coffee, such as food crops, horticulture, and animal husbandry, to maintain the agricultural efforts of coffee farmers in the face of the covid-19 pandemic. The counseling material on coffee plant cultivation received the lowest average of 2.78. This is because farmers have mastered coffee plant cultivation techniques. After all, they have been cultivating coffee for generations. In a pandemic, financial support such as tax reductions and access to capital can be vital to sustaining agricultural businesses (Lin & Zhang, 2020).

Agricultural Extension Method in the New Normal Era

The method variable is measured using 5 question items. Each answer has a value, and then the score is accumulated, which is then used to categorize variables based on the average respondent's answer. The frequency distribution of respondents' responses to the Method variable can be seen in Table 4.

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Table 4. Distribution of Respondents' Responses to Agricultural Extension Method in the New Normal Era

No	Items on Method		Answer Choices				Means	Category
			Strongly Agree	Agree	Disagree	Strongly Disagree		
1	Agricultural extension methods with a group approach	F	8	56	28	4	2.71	High
		%	8.3	58.3	29.2	4.2		
2	Agricultural extension methods with an individual approach	F	4	61	29	2	2.70	High
		%	4.2	63.5	30.2	2.1		
3	Agricultural extension methods with a mass approach	F	5	16	64	11	2,16	Low
		%	5.2	16.7	66.7	11.5		
4	Direct extension method	F	3	36	53	4	2.40	Low
		%	3.1	37.5	55.2	4.2		
5	Indirect extension method	F	10	71	15	0	2.95	High
		%	10.4	74.0	15.6	0.0		

Table 4 shows respondents' responses to agricultural extension methods in the New Normal era. The respondents' answers show that the indirect extension method has the highest average of 2.95 (classified in the high category), and the mass approach extension method has the lowest average of 2.16 (low category). During the Covid-19 pandemic, the extension methods used by agricultural extension workers in AMSTIRDAM used indirect extension methods, namely using WA Group. Extension methods with a direct approach, such as face-to-face, demonstrations, lectures, and demonstrations, could not be carried out due to restrictions on social activities that gather many people, so the mass approach extension method was not possible. During a pandemic, extension methods using an indirect approach utilizing information technology (digitalization), such as social media, need to be carried out, in line with the results of a study by Warnaen et al. (2020) that digitalization in extension is essential and an impact on the independence of farmers.

Agricultural Extension Media in the New Normal Era

The media variable is measured using 5 question items. Each answer has a value, and then the score is accumulated, which is then used to categorize variables based on the average respondent's answer. The frequency distribution of respondents' responses to the media variable can be seen in Table 5.

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Table 5. Agricultural Extension Media in The New Normal Era

No	Items on Media		Answer Choices				Means	Category
			Strongly Agree	Agree	Disagree	Strongly Disagree		
1	Printed agricultural extension media (leaflets, folders, brochures, etc.)	F	10	62	21	3	2.82	High
		%	10.4	64.6	21.9	3.1		
2	Audio-video agricultural extension media	F	10	61	22	3	2.81	High
		%	10.4	63.5	22.9	3.1		
3	Audio extension media (radio broadcasts)	F	7	58	28	3	2.72	High
		%	7.3	60.4	29.2	3.1		
4	Extension media using websites (cyber-extension, etc.)	F	15	54	25	2	2.85	High
		%	15.6	56.3	26.0	2.1		
5	Extension media using social media	F	13	66	16	1	2.95	High
		%	13.5	68.8	16.7	1.0		

Table 5. shows the respondent's responses to the media variable. Based on the respondents' answers, it can be seen that agriculture extension using social media has the highest average (mean) of 2.95 (classified in the high category). Agricultural extension workers in ASTRIDAM use Whatsapp Grop as a medium in extension activities. Wibowo & Haryanto (2020) stated that social media and the Whatsapp group application were widely used as online media in outreach activities during the COVID-19 pandemic. Khasanah et al. (2020) also stated that outreach and training activities were conducted online during the COVID-19 pandemic. In addition, Kipkurgat, Onyiego, & Chemwaina (2016) said that social media plays an essential role in increasing interaction between various actors in agricultural extension. At the same time, Audio Media was the weakest, with the lowest average of 2.72. With the advancement of digital technology and widespread internet access, many people turn to digital platforms for information. Social media, streaming platforms, and podcasts are becoming more popular as they allow listeners to select content and access it at their own pace.

Agricultural Extension Evaluation in the New Normal Era

The evaluation variable is measured using 4 question items. Each answer has a value, and then the score is accumulated, which is then used to categorize variables based on the average respondent's answer. The frequency distribution of respondents' responses to the Evaluation variable can be seen in Table 6.

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Table 6. Distribution of Respondents' Responses to Agricultural Extension Evaluation in New Normal Era

No	Items on Evaluation		Answer Choices				Means	Category
			Strongly Agree	Agree	Disagree	Strongly Disagree		
1	Evaluating the implementation of extension services	F	7	59	27	3	2.73	High
		%	7.3	61.5	28.1	3.1		
2	Evaluating the impact of extension services	F	9	58	29	0	2.79	High
		%	9.4	60.4	30.2	0.0		
3	Conducting evaluations using the direct evaluation method	F	3	46	40	7	2.47	Low
		%	3.1	47.9	41.7	7.3		
4	Conducting evaluations using the indirect evaluation method	F	8	55	32	1	2.73	High
		%	8.3	57.3	33.3	1.0		

Table 6 shows respondents' responses regarding evaluating extension services after the Covid-19 pandemic. Based on the respondents' answers, it can be seen that the evaluation of the impact of agricultural extension services is still carried out by extension workers (mean value 2.79, in the high category). While extension workers do not directly evaluate the extension program, as seen from the mean value of 2.47 (low category). Extension workers in AMSTIRDAM still evaluate the impact of agricultural extension, but it is done indirectly or through a Google form application distributed through the WA group.

CONCLUSION AND SUGGESTION

The conclusion obtained from this study is that extension activities carried out by agricultural extension workers in the new normal era of the COVID-19 pandemic start with planning by the preparation of programs together with farmers indirectly or online. The extension material delivered is more related to capital, the extension methods used mainly use an indirect approach, the extension media used by agricultural extension workers more often use social media, and agricultural extension workers continue to evaluate the impact of the extension during the COVID-19 pandemic. Based on the conclusions of the research on agricultural extension activities in the new normal era or the COVID-19 pandemic, some suggestions can be compiled: (1) Planning extension activities should still involve active participation from farmers indirectly or online. Joint program development with farmers can ensure that extension programs align with the needs and challenges coffee farmers face during the pandemic; (2) Capital being the main focus in extension materials, efforts are needed to develop comprehensive and relevant materials related to capital. In addition, extension materials should also cover other topics that are important to farmers during the pandemic, such as health risk management, technology adaptation, or marketing of agricultural products; (3) By utilizing technology and online communication, agricultural extension workers can use an indirect approach in delivering extension materials; (4) Optimize social media in delivering agricultural information; (5) It is important for agricultural extension workers to evaluate the impact of their extension activities

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continuously. Evaluations can help assess the effectiveness of extension programs and provide input for future improvements; (6) Agricultural extension workers need to be provided with training and increased competencies related to the use of technology and digital media in extension. These skills will help them optimize the use of social media and indirect approaches in extension. By implementing these suggestions, agricultural extension activities in the new normal era or the COVID-19 pandemic are expected to run more effectively, be relevant, and positively impact farmers in facing the challenges faced during the pandemic.

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