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EFFECTIVENESS OF "PROGRAM DESA MANDIRI PANGAN (DMP)" IN SUPPORTING AGRICULTURAL PRODUCTION AND HOUSEHOLD FOOD SECURITY IN WONOSOBO DISTRICT

Himawan Wahyu Pamungkas[1]*, Anang M. Legowo[2], and Mukson[1]
[1]Agribusiness, Faculty of Animal and Agricultural Sciences, Universitas Diponegoro, Indonesia
[2]Food Technology, Faculty of Animal and Agricultural Sciences, Universitas Diponegoro, Indonesia
*Correspondence Email: himawan.pamungkas31@gmail.com

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ABSTRACT

Wonosobo Regency is the district with the highest poverty rate in Central Java, reaching 17.58% in 2018. Based on the FSVA map, there are nine sub-districts in Wonosobo Regency with food security criteria (priority 5). The Food Independent Village Program is one of the critical interventions in poverty alleviation and increasing food security. The aims of this research are: 1) to describe socialization and training, mentoring, institutional growth, member participation, the commitment of policymakers, agricultural production, and household food security in Wonosobo Regency; 2) to analyze the influence between socialization and training, mentoring, institutional growth. The research was conducted using a quantitative approach with a survey method. The research location was determined based on consideration of the high poverty level, the condition of food security and vulnerability, and the location of the DMP program village. Sampling was carried out on 118 household heads receiving the DMP program in Reco Village and Kapencar Village. Data was collected based on interviews using questionnaires and observations. The Linkert scale measures variables using: strongly disagree, disagree, undecided, agree, and strongly agree. Descriptive analysis was used to examine respondents' responses to the variables of socialization and training, mentoring, institutional growth, member participation, the commitment of policymakers, agricultural production, and household food security. Based on descriptive analysis, respondents gave responses with high categories for the variables of training socialization, mentoring, institutional growth, member participation, and commitment of policymakers, agricultural production, and household food security. The inner study of the SEM analysis model of the PLS method stated that the variables of socialization and training, mentoring, institutional growth, member participation, and commitment of policymakers had a significant effect on agricultural production. Furthermore, socialization, training, and institutional development significantly impact food security. Still, the variable of assistance, member participation, and policymakers' commitment does not significantly affect food security.

Keywords: *food security, policymakers, poverty, Wonosobo*

BACKGROUND

One of the directions of agricultural development is to create food security for the community. In the 2015-2020 National Medium-Term Development Plan, general policies on food security are directed, among others, to strengthening food security towards food self-sufficiency by increasing staple food production, stabilizing food prices, improving the quality of food consumption and public nutrition, and increasing the welfare of food business actors. Especially farmers, fishers, and fish cultivators. Policies to achieve food security in Central Java Province are synergistic with central government policies. In Central Java Province, food security is one of the strategic issues in the 2018-

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2023 development. In the 2018-2023 Regional Medium-Term Development Plan, the food security development strategy is carried out through the realization of a regional logistics system that ensures availability, especially the availability of food stocks in the community, shortens the distribution chain as well as stock management through food reserves and price stabilization, sustainable food consumption. Diverse, Nutritious, Balanced, and Safe (B2SA) and the quality and safety of fresh food.

According to Law Number 18 of 2012 concerning Food, food security is a condition of fulfilling food for the state to individuals, which is reflected in the availability of sufficient food, both in quantity and quality, safe, diverse, nutritious, equitable, and affordable and does not conflict with religion, belief, and culture of the community, to be able to live a healthy, active and productive life in a sustainable manner. Food production must not only be available from the aspect of quantity but also must be guaranteed quality and safety. Fulfilling the food needs of individuals means that it can be interpreted that every citizen must have the purchasing power to gain access to food. Realizing food security at the community and individual levels in a healthy, active, and productive manner requires a sustainable foundation of sovereignty and independence. Food sovereignty, based on Law Number 18 of 2012 concerning Food, is the right of the state and nation to independently determine food policies that guarantee the right to food for the people and which give the community the right to choose a food system that is by the potential of local resources. Furthermore, food independence is defined as the ability of the state and nation to produce diverse food from within the country, which can ensure the fulfillment of sufficient food needs at the individual level by utilizing the potential of natural, human, social, economic, and local wisdom resources with dignity.

The development of food security is directed at providing food for the community in a variety, healthy, balanced, and safe manner. Food is one of the fundamental rights that must be fulfilled, and its sustainability guaranteed. If a person cannot get access to food, then that person can be categorized as poor because his fundamental rights cannot be fulfilled. Poverty, by the Central Statistics Agency, is measured using the concept of the ability to meet basic needs (basic needs approach). This approach sees poverty as an economic inability to meet basic food and non-food needs as measured from the expenditure side. Based on the description above, efforts to increase food security are essential in poverty alleviation. One of the efforts made by the government through the Ministry of Agriculture is implementing a food-independent village program. The food independent village program aims to improve the ability of rural communities to develop productive businesses based on local resources, increase food availability, increase household food purchasing power and access to meet household nutritional adequacy, which ultimately has an impact on reducing food insecurity and community nutrition—poor in rural areas.

The food security and insecurity condition is shown by the Food Security And Vulnerability Atlas (FSVA) map, which is measured based on aspects of food availability, access, and use. Measurement of availability, access, and utilization aspects uses relevant indicators: food availability, poverty conditions, access to infrastructure, life expectancy, nutritional status, and health facilities. The preparation of the FSVA map is intended as a comprehensive mapping instrument for determining policies to increase the accuracy of targets and locations of interventions. The map is made with a gradient color pattern from red to green. The red gradation indicates a high level of food insecurity and security (priority 1), to the dark green gradation (priority 6) indicates better conditions. The preparation of the FSVA map at the Central Java Province level began in 2010 with a sharpened analysis of the sub-district level. Based on the 2018 FSVA map (BKP, 2019), food security and

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vulnerability at the sub-district level in Central Java Province are mainly in the same food security category (priority 6) or ideal conditions. However, some sub-districts are less food security (priority 4), namely as many as four sub-districts. In addition, 33 sub-districts are in the food security category (priority 5). On the other hand, based on the 2019 BPS data release, in 2018, Wonosobo Regency was the district with the highest poverty rate in Central Java, 17.58%. The condition of the poverty level in question, when compared with the state of food security based on the FSVA map, indicates that government public policy intervention is needed in handling food security and insecurity.

Public policies drawn up by the government are based on three stages of the process: planning or policy formulation, policy implementation, and policy evaluation (Wahab, 2005). The Food Independent Village Program (DMP) in Central Java Province was started in 2006 with a budget from the APBN. Based on the directions and objectives and the principle of the benefits of the DMP program, the Central Java Provincial Government replicated the DMP program starting in 2012, sourced from the Central Java Provincial APBD budget. The implementation of the food independent village program consists of four stages, namely preparation, growth, development, and independence. Village locations that have reached the independence stage are expected to have achieved the program objectives. The DMP program has completed its fourth year or has reached the independence stage, so research is needed to analyze the factors that influence the effectiveness of the DMP program and its effect on agricultural production and food security. The form of activity is directed at supporting food security and minimizing food vulnerability at the household level. The state of DMP program activities consists of on-farm and off-farm activities. On-farm activities, among others, are carried out in the agricultural and livestock sectors. Off-farm activities, among others, are carried out through agrarian product processing and trading activities. Implementing these on-farm and off-farm activities is expected to support increased agricultural production on a household scale. The results of on-farm and off-farm product processing in DMP program activities can undoubtedly encourage an increase in household income. This is in line with the objectives of the DMP program, namely to increase household purchasing power and access to food. By increasing the production and income of the community receiving the DMP program, it is hoped that household food security can be realized.

The results of a study by the Food Security Agency of Central Java Province (2015) show some exciting findings. Namely, there is a decrease in member participation in the fourth year, a reduction in income for agriculture-based SMEs, an increase in the production of staple food by respondents, which has not significantly increased, and as many as 15.57% of respondents—stated that there is still a shortage of food. This study illustrates that there are still obstacles to implementing the DMP Program, so further research is needed. Based on the description above, it is necessary to study and analyze to determine the effect of socialization and training, mentoring, institutional growth, member participation, and policymakers' commitment to agricultural production and household food security. An exciting variable from this research is the use of the farm output so that the measurement of the effect is not only between effectiveness factors and food security. This is the basis for the intervention pattern of the DMP program, which also emphasizes on-farm and off-farm aspects. Based on the description of the background above, there are several interesting problems to be studied and investigated further. For groups that have implemented the DMP program to the independence stage, it is hoped that they have achieved the program objectives. The implementation of the DMP program is based on affinity groups, so a more in-depth analysis of group members' participation in the DMP program's performance is needed. In addition, government policies as outlined in a program require policymakers' commitment to ensuring the program's success. Based

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on the Ministry of Agriculture Regulation Number 10 of 2016 concerning Technical Guidelines for the Development of Food Independent Village Areas, there are indicators of success at the output level.

The form of activities of the DMP program consists of activities in the upstream and downstream sectors. This form of action can be interpreted as a production process because there are efforts to increase the added value of a product. The DMP program implemented effectively is expected to increase agricultural production in a household receiving the DMP program. In addition, paying attention to DMP program activities, namely on-farm and off-farm activities oriented to agricultural production processes, will encourage increased income. Based on this, this study will be studied how much influence the effectiveness of the DMP program has on increasing agricultural production. One of the objectives of implementing the DMP program is realizing community food security, especially at the household level. Increased production and household income will encourage the fulfillment of food availability, access, and consumption patterns, leading to increased household food security. Based on this description, it is necessary to conduct a more in-depth study to find out how much influence agricultural production and income generation have on the realization of household food security. The ultimate goal of implementing the DMP program is to reduce food insecurity and nutrition for the poor in rural areas. In other words, the estuary of implementing the DMP program is the realization of food security in households. If the DMP program is implemented effectively, it will encourage the completion of household food security. In this study, the effect of the effectiveness of the DMP program on the realization of household food security will be studied.

Based on the description above, the problems in this research can be formulated, namely:

1. What is the description of socialization and training, mentoring, institutional growth, member participation, the commitment of policymakers, agricultural production, and household food security in Wonosobo Regency?
2. Do socialization and training, mentoring, institutional growth, member participation, and commitment of policymakers affect agricultural production?
3. Do socialization and training, mentoring, institutional growth, member participation, and policymakers' commitment affect household food security?

RESEARCH METHODS

This research was conducted in July – August 2019 using the survey method. The research location is in Kertek District, Wonosobo Regency, in two villages, namely Kapencar Village and Reco Village. The population in this study was the head of household members of the DMP program affinity group in Kertek District, Wonosobo Regency, as many as 129 people. This study consisted of 7 variables composed of 5 independent variables, one mediating or intervening variable, and 1 dependent variable. These variables are: 1) Socialization and training; 2) Mentoring, 3) Institutional growth, 4) Member participation, 5) Commitment of policymakers; 6) Agricultural Production; and 7) Food Security. Data was collected based on interviews with respondents using questionnaires and observations. Measurement of variables using a Likert scale, with the following scale levels: low, medium, and high. Analysis of data data analysis using descriptive analysis and statistical analysis using SEM (Structural Equation Modeling) alternative method PLS (Partial Least Square). Based on the formulation of the problem in this study, the proposed hypothesis is:

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H1: It is suspected that there is an influence of the socialization of the DMP program on agricultural production.
H2: It is suspected that there is an influence of the DMP program assistance on agricultural production.
H3: It is suspected that there is an effect of growing the DMP program group on agricultural production.
H4: It is suspected that there is an effect of member participation on agricultural production.
H5: It is suspected that there is an influence of policy makers' commitment to agricultural production.
H6: It is suspected that there is an influence of the socialization of the DMP program on household food security.
H7: It is suspected that there is an influence of the DMP program assistance on household food security.
H8: It is suspected that there is an effect of growing the DMP program group on household food security.
H9: It is suspected that there is an effect of member participation on household food security.
H10: It is suspected that there is an influence on policymakers' commitment to household food security.
H11: It is suspected that there is a relationship between agricultural production and household food security.

RESULT AND DISCUSSION

Description of Respondent Characteristics

Based on the study results, it is known that most of the respondents came from the Al Barokah farmer group, as much as 32.2%, from Kapencar village, 60.2%, most of them aged 51-60 years at 54.2%, as many as 77.1 men. %, most of them have an elementary school education, as much as 59.3%. Age and education factors determine a person's speed in accepting an innovation, including new knowledge (Ali et al., 2016). In terms of farming experience, 46.6% have around 31-40 years of experience. The experience factor is one of the factors that affect farming. According to Suratiyah (2015), internal factors affecting farming include farmers' age, education, knowledge, experience and skills, number of family workers, land area, and capital.

Respondents' Responses to Socialization and Training Variable (X1)

Six statement items measure the variable of Socialization and Training (X1). The results of the descriptive statistical analysis of the Socialization and Training variable (X1) are indicated by the frequency of the answers to each statement. The study results illustrated that the values most chosen by respondents were 4 and 5, which means that respondents gave good and even excellent responses to socialization and training. So, according to respondents, the implementation of the DMP program should begin with socializing the program to members of the target group. The management and members can understand the dissemination of the DMP Program. Business management training and institutional development help increase the knowledge and skills of members. This study also found that food processing training proved beneficial for increasing the knowledge and skills of members and, in turn, could increase income. All members have equal access and opportunities to participate in business management training, institutional development, and food processing. Business

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management training, institutional development, and food processing help improve the performance of the DMP program. The results of responses regarding socialization and training as a whole, most of them were in the high category as many as 107 people (90.7%), in the medium category, there were five people (4.2%), and those who perceived low were six people (5.1%). For more details, respondents' responses to socialization and training are shown in Figure 1.

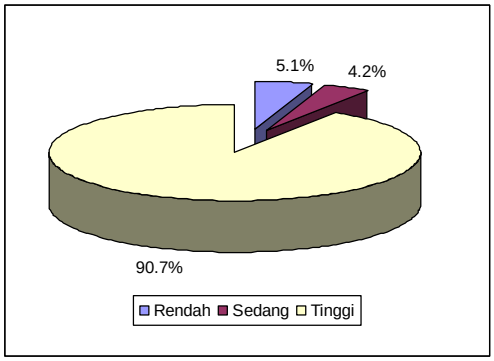

Figure 1. Socialization and Training Variables

Respondents' Responses to the Mentoring Variable (X2)

Five statement items measured the mentoring variable; it illustrated that the values most chosen by the respondents were 4 and 5, which means that the respondents gave good and even excellent responses to mentoring. So, according to respondents, the assistance of the DMP program at the preparation stage is beneficial for increasing individual capacity, economic institutions, insight into the DMP program, and readiness to implement the DMP program. The assistance of the DMP program at the growth stage helps develop and strengthen group businesses. The study also found evidence that the readiness of facilitators for the DMP program plays a vital role in supporting the successful implementation of the DMP program. Problem-solving in the performance of the DMP program requires the presence of assistants on a regular and ongoing basis. The assistant staff for the DMP program needs to play an active and initiating role and be able to grow and develop the group. The results of responses regarding mentoring as a whole, most of them were in the high category, as many as 101 people (85.6%), in the medium category, there were 12 people (10.2%), and those who perceived low were five people (4.2%). For more details, respondents' responses to mentoring are shown in Figure 2.

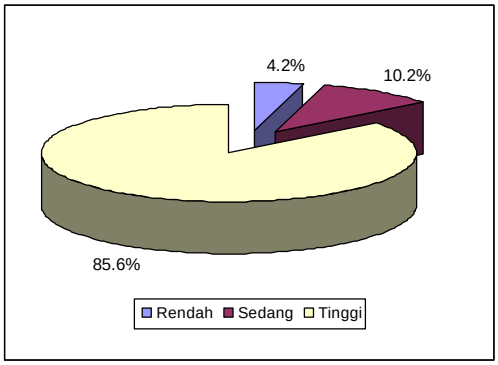

Figure 2. Respondents' Responses to Mentoring Variables

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Respondents' Responses to the Institutional Growth Variable (X3)

Seven statement items measure the institutional growth variable (X3); it is obtained as an illustration that the value most chosen by respondents is 4, which means that respondents give good responses to institutional growth. So, according to respondents at the independence stage of the DMP program (4th year), the group developed to be more active in realizing the DMP program. At the independence stage of the DMP program, group assets increase according to the set target. At the independence stage of the DMP program, the group becomes more dynamic, independent, and confident. This study also found that group efforts became more productive and prospective at the independence stage. The group develops according to the steps of the DMP program (preparation, growth, development, independence). There are efforts from the group to develop the members' willingness to learn through activities related to the DMP program. There are efforts from the group to develop a sense of concern for the success of the DMP program through member discipline. The results of responses regarding institutional growth as a whole, most of them were in the high category as many as 90 people (76.3%), in the medium category, there were 23 people (19.5%), and those who perceived low were five people (4.2%). For more details, respondents' responses to institutional growth are shown in Figure 3.

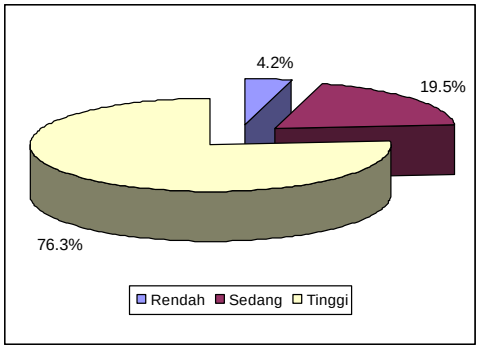

Figure 3. Respondents' Responses to Institutional Growth Variables

Respondents' Responses to Member Participation Variable (X4)

Twelve statement items measure Member Participation Variable (X4); an illustration is obtained that the values most chosen by respondents are 4 and 5, which means that respondents give good and even excellent responses to member participation. So, according to respondents in implementing the DMP program, group members have actively developed activity plans. Each group member has the same opportunity to compile and plan activities. Every project that has been prepared together is carried out with commitment and responsibility by all group members. All group members are involved in determining a decision related to the DMP program. All group members actively participate in the discussion of decision-making in implementing the DMP program. In this study, it was found that each group member was involved in every implementation of the DMP program activities according to their roles and responsibilities. Each group member is responsible for implementing group decisions. The DMP program provides benefits and added value for all group members. There has been an increase in family welfare after implementing the DMP program. Activities that have been planned and implemented evaluate the level of success. Group members are involved in assessing the implementation of DMP program activities. The evaluation results are used to improve the performance of further actions. The results of the responses regarding the participation of members as a whole, most of them were in the high category as many as 105 people (89.0%); in

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the medium category, there were seven people (5.9%), and those who perceived low were six people (5, 1%). For more details, respondents' responses to member participation are shown in Figure 4.

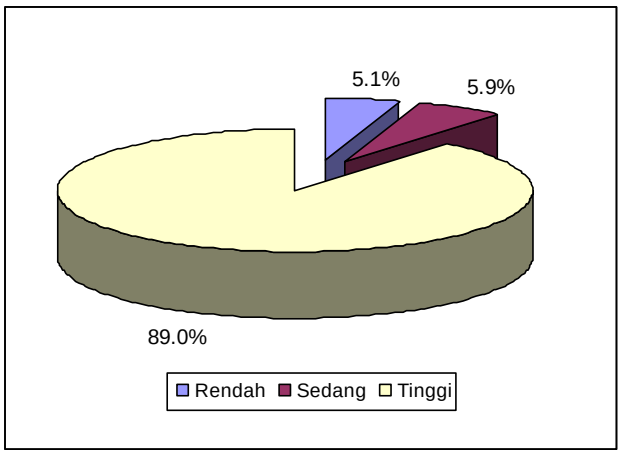

Figure 4. Respondents' Responses to Member Participation Variables

Respondent's Response to Policy Maker Commitment Variable (X5)

Six statement items measure the policy maker's commitment variable (X5); an illustration is obtained that the value most chosen by the respondents is 4, which means that the respondents gave an excellent response to the policymakers' commitment. So, according to respondents, assistance for implementing the DMP program from the government is given to groups (not individuals). The handover of the DMP program assistance is recorded and documented through the handover report and witnessed by the group administrator. Help for implementing the DMP program has been distributed on time, on target, and in the right amount/volume. The distribution of the aid for the performance of the DMP program is carried out based on an agreement between groups, facilitators, and the government. The amount of assistance for implementing the DMP program is distributed according to the group's proposal. The group administrator performs a control function on any help the proposed plan receives. The results of the responses regarding the commitment of policymakers as a whole, most of them were in the high category as many as 103 people (87.3%); in the medium category, there were 12 people (10.2%), and those who perceived low were three people (2.5%). For more details, respondents' responses to the commitment of policymakers are shown in the form of Figure 5.

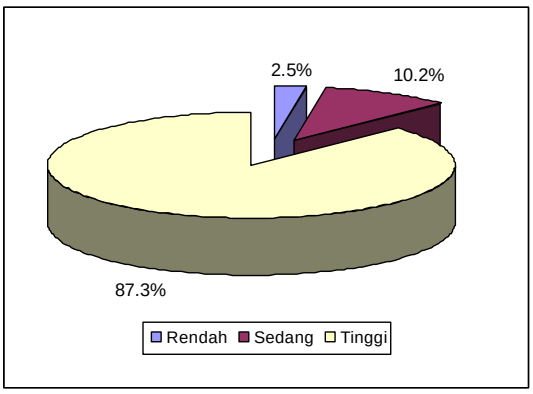

Figure 5. Respondents' Responses to the Variable Commitment of Policy Makers (X5)

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Respondent's Response to Agricultural Production Variable (Y1)

Five statement items measure Agricultural Production Variable (Y1); it is obtained as an illustration that the value most chosen by the respondents is 4, which means that the respondents gave an excellent response to agricultural production results. So, according to respondents, the DMP program running can increase the agricultural production (food crops, horticulture, livestock) of group members. The DMP program can increase the added value of agricultural products, including processing (off-farm). The DMP program can increase the income of group members. The DMP program can boost business productivity and efficiency. The effectiveness of the DMP program can encourage family economic growth. The results of the responses on agricultural production as a whole, mainly in the high category, as many as 100 people (84.7%), in the medium category, there were 13 people (11.0%), and those who perceived low were five people (4.2%). In more detail, respondents' responses to agricultural production are shown in Figure 6.

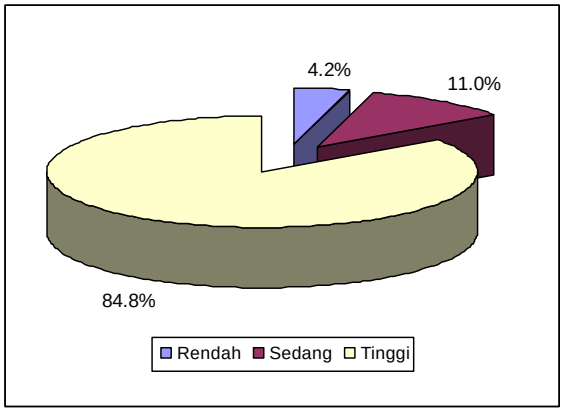

Figure 6. Respondents' Responses to Agricultural Production Variables (Y1)

Agricultural production, especially in Reco and Kapencar villages, is indicated by the production of food crops, including rice and corn. Based on secondary data from the Kertek District Agricultural Extension Center (2019), corn production in Reco Village was 615.49 tons, and Kapencar Village was 380.82 tons. Corn production from the two villages is low compared to the total output of the Kertek District, which is 6,967.37 tons. This is because the corn area is relatively low in Reco and Kapencar villages compared to other villages. Both villages are in a low category in terms of production or availability, but production is also measured from the off-farm aspect, including the development of group businesses. The exciting thing about the production of rice commodities because in the two research villages, there was no rice production. One of the conditions for consideration in determining the location of the DMP Program is to be included in the category of poor villages with a poor population of more than 30% and including villages with food insecurity or low levels of food security.

Respondent's Response to the Food Security Variable (Y2)

Seven statement items measure the food security variable; an illustration is obtained that the value most chosen by the respondents is 4, which means that the respondents gave an excellent response to food security. So, according to the respondent, there have been no food shortages in meeting the needs of the family in the past year. The average household income has been able to meet the needs of food and non-food according to the recommended ideal limit of needs (the percentage of food is smaller than that of non-food). The composition of food ingredients is always balanced

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between sources of calories, protein, and other nutrients. The results of this study also found that the DMP program was proven to increase the availability and affordability of food. Through the DMP program, food needs can be produced and provided by members. Through the DMP program, at the independence stage (4th year), households have more freedom to access food, both in quality and quantity. Through the DMP program, the availability of food consumed by household members increases with the orientation of being nutritious, balanced, healthy, and safe. The results of responses regarding food security as a whole, most of them were in the high category as many as 99 people (83.9%), in the medium category, there were 17 people (14.4%), and those who perceived it as low were two people (1.7%). In more detail, respondents' responses to food security are shown in the form of Figure 7.

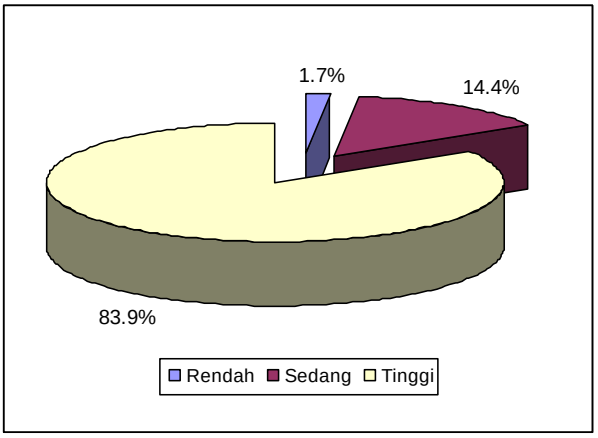

Figure 7. Respondents' Responses on Food Security (Y2)

Effect between Socialization and Training, Mentoring, Institutional Growth, Member Participation, and Commitment of Policy Makers in Influencing Agricultural Production and Household Food Security

This study uses seven latent constructs, namely Socialization and Training (X1), Mentoring (X2), Institutional Growth (X3), Member Participation (X4), Policy Maker Commitment (X5), Agricultural Production (Y1), and Food Security (Y2). Path analysis is used to predict causality between latent variables. The path analysis of this research consists of two kinds, namely direct influence and indirect effect (mediation effect), with a guideline on the limit value of 1.96 with a confidence level of 95 percent (alpha = 5%) or an error rate of 5 percent. The hypothesis is accepted if the t count is more significant than 1.96. The idea is rejected if the t count is less than 1.96. The results of the PLS-SEM analysis are presented in Figure 8.

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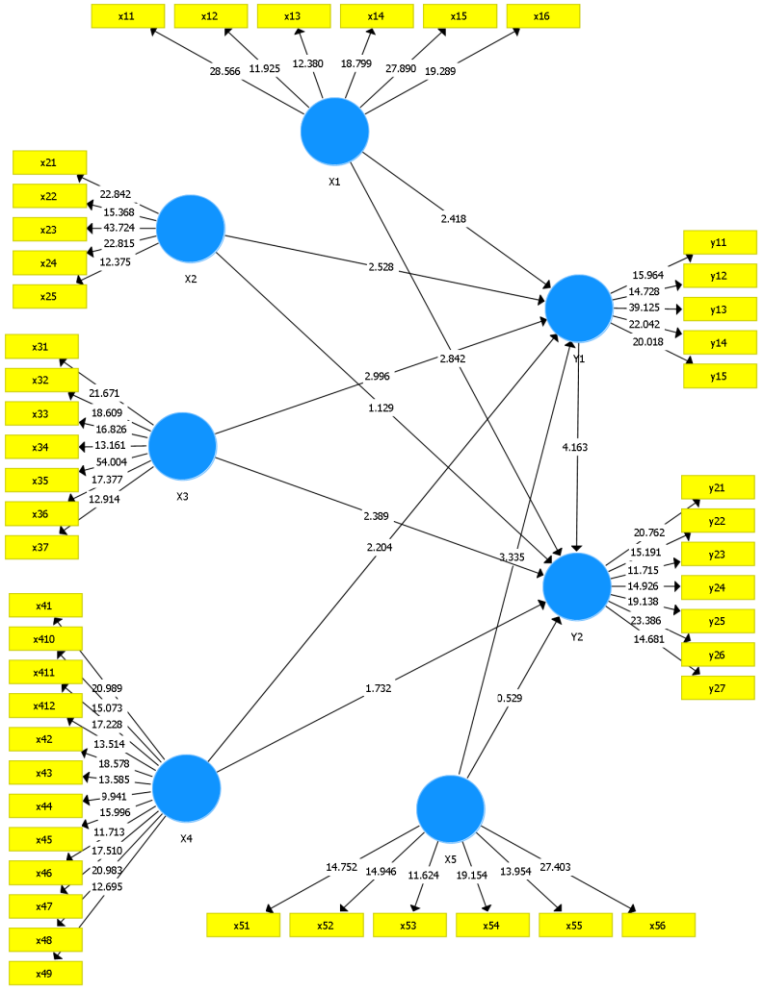

Figure 8. Full SEM-PLS Model

Direct Effect Test Results

The results of the direct influence test aim to analyze the relationship between variables directly, fully presented in table 1.

Table 1. Direct Effect Test Results

Correlation Between Variables	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
X1 -> Y1 (H1)	0.205	0.085	2,418	0.016
X1 -> Y2 (H6)	0.206	0.072	2,842	0.005
X2 -> Y1 (H2)	0.189	0.075	2,528	0.012
X2 -> Y2 (H7)	0.084	0.075	1,129	0.259
X3 -> Y1 (H3)	0.197	0.066	2,996	0.003
X3 -> Y2 (H8)	0.133	0.056	2,389	0.017
X4 -> Y1 (H4)	0.229	0.104	2,204	0.028
X4 -> Y2 (H9)	0.126	0.073	1,732	0.084
X5 -> Y1 (H5)	0.269	0.081	3,335	0.001
X5 -> Y2 (H10)	0.032	0.060	0.529	0.597
Y1 -> Y2 (H11)	0.457	0.110	4.163	0.000

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Note: X1 = Socialization and Training; X2 = Assistance; X3 = Institutional Growth; X4 = Member Participation; X5 = Policy Maker Commitment; Y1 = Agricultural Production; Y2 = Food Security, Processed Data, 2020

The following is a description of the hypothesis testing of the direct effect of each construct on the model of Agricultural Production (Y1) and Food Security (Y2).

1. Hypothesis 1, H1 states that socialization and training (X1) positively affect agricultural production (Y1). The calculation results in Table 4.20 show that the t-statistics value for hypothesis 1 is 2.418, which is greater than 1.96. The p-value of 0.016 is smaller than 0.05, which means it is significant, meaning that H1 is accepted.
2. Hypothesis 2, H2 states that mentoring (X2) positively affects agricultural production (Y1). The calculation results in Table 4.20 show that the t-statistics value for hypothesis 1 is 2.620, more significant than 1.96, and the p-value of 0.012 is smaller than 0.05, which means it is significant, meaning that H2 is accepted.
3. Hypothesis 3, H3 states that customer growth (X3) positively affects agricultural production (Y1). The calculations in Table 4.20 show that the t-statistics value for hypothesis 3 is 2.996, greater than 1.96, and the p-value of 0.003 is smaller than 0.05, which means it is significant, meaning that H3 is accepted.
4. Hypothesis 4, H4 states that member participation (X4) positively affects agricultural production (Y1). The calculation results in Table 4.20 show that the t-statistics value for hypothesis 4 is 2.204, greater than 1.96, and the p-value of 0.028 is smaller than 0.05, which is significant, meaning that H4 is accepted.
5. Hypothesis 5, H5 states that the commitment of policymakers (X5) positively affects agricultural production (Y1). The calculation results in Table 4.20 show that the t-statistics value for hypothesis 1 is 3.335 greater than 1.96, and the p-value is 0.001 smaller than 0.05, which is significant, meaning that H5 is accepted.
6. Hypothesis 6, H6 states that socialization and training (X1) positively affect food security (Y2). The calculation results in Table 4.20 show that the t-statistics value for hypothesis 6 is 2.842, greater than 1.96, and the p-value of 0.005 is smaller than 0.05, which is significant, meaning that H6 is accepted.
7. Hypothesis 7, H7 states that accompaniment (X2) positively affects food security (Y2). The calculation results in Table 4.20 show that the t-statistics value for hypothesis 7 is 1.129, smaller than 1.96. The p-value is 0.259 greater than 0.05, which means it is not significant, meaning that H7 is rejected.
8. Hypothesis 8, H8 states that institutional growth (X3) positively affects food security (Y2). The calculation results in Table 4.20 show that the t-statistics value for hypothesis 8 is 2.389, greater than 1.96, and the p-value of 0.017 is smaller than 0.05, which means it is significant, meaning that H8 is accepted.
9. Hypothesis 9, H9 states that member participation (X4) positively affects food security (Y2). The calculation results in Table 4.20 show that the t-statistics value for hypothesis 9 is 1.732, which is smaller than 1.96. The p-value is 0.084, which is greater than 0.05, which means it is not significant, meaning that H9 is rejected.
10. Hypothesis 10, H10 states that the commitment of policymakers (X5) positively affects food security (Y2). The calculation results in Table 4.20 show that the t-statistics value for hypothesis

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10 is 0.529 smaller than 1.96, and the p-value is 0.529 greater than 0.05, which means it is not significant, meaning that H10 is rejected.

11. Hypothesis 11, H11 states that agricultural production (Y1) positively affects food security (Y2). The calculation results in Table 4.20 show that the t-statistics value for hypothesis 11 is 4.163, greater than 1.96, and the p-value of 0.000 is smaller than 0.05, which means it is significant, meaning that H11 is accepted.

Indirect Influence Results

In testing the hypothesis, the indirect effect is obtained from the path coefficient value or the inner model output-specific indirect effect with bootstrapping technique. If the t-statistic value is higher than the t-table of 1.96 for the two-tailed hypothesis and the sig value is less than 0.05, the idea is accepted. Below are the results of testing the indirect effect of seeing the mediating impact of the Agricultural Production construct (Y1).

Table 2. Indirect Effect Hypothesis Test Results

Indirect Influence	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
X1 -> Y1 -> Y2	0.094	0.047	2.006	0.045
X2 -> Y1 -> Y2	0.087	0.037	2,358	0.019
X3 -> Y1 -> Y2	0.090	0.041	2,206	0.028
X4 -> Y1 -> Y2	0.105	0.051	2.047	0.041
X5 -> Y1 -> Y2	0.123	0.043	2,879	0.004

Source: Processed data, 2020

The following is a description of the hypothesis testing of the mediation effect of Agricultural Production (Y1), which is explained in more detail as follows:

1. The hypothesis states that socialization and training (X1) have a positive effect on food security (Y2) through agricultural production (Y1). The results of the calculations in Table 4.21 show that the impact of socialization and training (X1) on agricultural production (Y1) and food security (Y2) obtained a positive path coefficient of 0.094, the t-statistics value of 2.006 is greater than 1.96 (t table). The importance of a sig of 0.045 is smaller than 0.05. This means that agricultural production (Y1) mediates the effect of socialization and training (X1) on agricultural production (Y2), so the hypothesis is accepted.
2. The hypothesis states that mentoring (X2) has a positive effect on food security (Y2) through agricultural production (Y1). The calculation results in Table 4.21 show the effect of mentoring (X2) on agricultural production (Y1) and food security (Y2) obtained a positive path coefficient of 0.087, the t-statistics value of 2.358 greater than 1.96 (t table), and sig value of 0.019 is less than 0.05. This means that agricultural production (Y1) mediates the effect of mentoring (X2) on agricultural production (Y2), so the hypothesis is accepted.
3. The hypothesis states that the growth of institutions (X3) has a positive effect on food security (Y2) through agricultural production (Y1). The calculation results in Table 4.21 the impact of institutional growth (X3) on agricultural production (Y1) and food security (Y2) obtained a positive path coefficient of 0.090, the t-statistics value of 2.206 greater than 1.96 (t table), and the sig value of 0.028 is smaller than 0.05. This means that agricultural production (Y1) mediates the effect of institutional growth (X3) on agricultural production (Y2), so the hypothesis is accepted.
4. The hypothesis states that member participation (X4) has a positive effect on food security (Y2) through agricultural production (Y1). The calculation results in Table 4.20 the effect of member

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participation (X4) on agricultural production (Y1) and food security (Y2) obtained a positive path coefficient of 0.105, the t-statistics value of 2.047 greater than 1.96 (t table), and sig value of 0.041 is smaller than 0.05. This means that agricultural production (Y1) mediates the effect of member participation (X4) on agricultural production (Y2), so the hypothesis is accepted.

5. The hypothesis states that the commitment of policymakers (X5) has a positive effect on food security (Y2) through agricultural production (Y1). The calculation results in Table 4.20 show the influence of policymakers (X5) on agricultural production (Y1) and food security (Y2) obtained a positive path coefficient of 0.123, the t-statistics value of 2.879 is greater than 1.96 (t table), and the sig value of 0.004 is smaller than 0.05. This means that agricultural production (Y1) mediates the influence of policymakers (X5) on agricultural production (Y2), so the hypothesis is accepted.

The Influence of Socialization and Training (X1), Mentoring (X2), Institutional Growth (X3), Member Participation (X4), and Commitment of Policymakers (X5) to Agricultural Production (Y1).

Based on the research objectives, the results of the test on the influence of the factors that affect the effectiveness of the DMP program on agricultural production are explained as follows:

Effect of Socialization and Training (X1) on Agricultural Production (Y1)

The results of this study found evidence that socialization and training (X1) had a significant positive effect on agricultural production. So socialization and training (X1) can increase agricultural production (Y1). The higher the socialization and training, the higher the agricultural products produced, the lower the socialization and training, the lower the agricultural production. The better the efforts of program organizers to convey information on program implementation and increase the knowledge and skills of the target community, it will increase the more agricultural production of the target community. The socialization and training aim to improve farmers' knowledge and skills. Knowledge, skills, and attitudes are interrelated factors, to direct a farmer is doing a business that is beneficial for his life and future. Farmer knowledge gained from socialization and training can improve farmer attitudes. According to Puspadi (2002), changes in farmers' attitudes lead to changes in farmers' needs. The needs of farmers today are a decent level of income and the availability of capital as an instrument to actualize themselves, develop themselves, and maintain themselves. Farmers learn a lot from their own experiences and the experiences of others about technological innovation by trying a variety of courses of action.

A farmer with low education is often apathetic to innovation as a result of his failure. So the better the socialization and training that farmers receive through the DMP Program, the more benefits they will get, including better knowledge in managing agricultural production. The better management knowledge, the higher agricultural production. In this study, evidence was found that the existing DMP program was able to increase the agricultural production (food crops, horticulture, livestock) of group members. Knowledge is the result of knowing, knowledge is obtained after someone has sensed a certain object. Sensing through certain objects through education and training obtained from agricultural extension workers. So knowledge is a very important domain in shaping the actions of farmers in managing their business. According to Notoatmodjo (2010), behavior based on knowledge will be more lasting than behavior that is not based on knowledge. So socialization and training are a conscious effort to increase farmers' knowledge, because, with increased knowledge, farmers will be better at managing their farming business so that farmers' production increases. This research proves that the socialization and training obtained through the DMP program can increase

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the added value of agricultural products, including in the field of processing (off-farm). The DMP program can increase the income of group members. The DMP program can boost business productivity and efficiency. The effectiveness of the DMP program can encourage family economic growth. This study supports the results of Hamrat's research (2018), that the knowledge received from the socialization and training process can increase farmers' adoption of organic cultivation technology.

In the initial stage of implementing the DMP program, the government through the DMP program assistant conducted socialization and training for affinity groups. Program socialization aims to provide an understanding of the direction of the DMP program. As for the training aspect, increasing knowledge and abilities, especially on the on-farm aspect, can increase the knowledge and capacity of affinity group members. Socialization and training are an indicator of the success of the DMP program, this is by the Minister of Agriculture Number 15 of 2015 concerning Guidelines for the Food Independent Village Program. If the socialization and training are carried out properly and according to the guidelines, the effectiveness of the DMP program will be achieved, especially in the aspect of agricultural cultivation, including increasing agricultural production. Based on the findings from secondary data and interviews, the socialization of the DMP program in Wonosobo Regency was carried out in stages and stages, namely:

1. At the Regency level, the socialization is carried out at a food security council meeting led by the Wonosobo Regent by presenting cross-regional work units, so that the DMP program is expected to get support from across sectors.
2. At the sub-district level, the socialization was carried out by the Food, Agriculture, and Fisheries Service of Wonosobo Regency as the program implementer by presenting the recipient group administrators and program assistants.
3. At the group level, socialization is carried out by the Food, Agriculture, and Fisheries Service together with program assistants by presenting all group members. At the group level socialization stage, information and descriptions of program implementation are provided, including on-farm aspects.

Based on the results of interviews with the Food, Agriculture, and Fisheries Service, it was stated that there were two types of training in the DMP program, namely technical and supporting training. Several forms of technical training include food processing, business management, and cultivation techniques. As for supporting training, among others, institutional management and development training. Food processing training is carried out according to village potential. Reco Village conducted training on sweet potato and banana-based food processing. Kapencar Village carries out livestock-based food processing training. Business management training was carried out by presenting resource persons from the Wonosobo Regency Manpower, Industry, and Transmigration Office. The material given is about the management of group business management. The technical training carried out included training on horticultural cultivation, namely potato, cabbage, chili, and goat farming.

Effect of Mentoring (X2) on Agricultural Production (Y1)

The results showed that mentoring (X2) had a positive effect on agricultural production (Y1) with a t count of 2.528 which was greater than 1.96 and a p-value of 0.012, which was smaller than 0.05. The better the assistance carried out, the higher the agricultural production, the worse the assistance carried out, the lower the agricultural production. A DMP program assistant must have

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high credibility. The credibility of a facilitator from the government/private sector will determine the success of the program run by the community. This is because a facilitator must be able to play a dual role, both as a resource person and as a driver as well as a facilitator for implementing the development of a community or community he is accompanying. The assistance provided by the government is an effort to realize its important role in raising and increasing public awareness. The purpose of mentoring is to convey program information through community leaders and groups as well as the younger generation. Mentoring aims to persuade, influence, and convince the community, providing information about the benefits of group participation. The role of the facilitator can be grouped into four groups, namely the role of facilitator, educational role, representational role, and technical role. Adi (2003) explains that the four roles, namely the facilitative role and the educational role, are the more basic and direct roles in intervention with the farming community. While the other two roles, namely the role of community representatives and technical roles, are less direct to the target than the previous roles.

According to Adi (2003) the mentoring process carried out by community service organizations there are some differences between one group and another but in general, the stages carried out include the following stages. Stages of assessment, the activities carried out include identifying problems and resources owned by making every effort to actively involve the community to solve problems and facilitate the preparation of priorities for problems that will be followed up at the next stage. Stages of planning alternative programs or activities that officers as change agents involve the community to think about the problems they face and how to overcome them. The programs and activities that they will develop must of course be adjusted to the purpose of assisting so that they are of long-term benefit. The action plan formulation stage is the stage of formulating an activity plan with community groups. The stages of implementing programs and activities are the implementation of activities by the action plan by the community. The evaluation stage is in the form of a thorough assessment of activities with the community regarding the implementation of the activity stages. The termination stage, this stage is the stage of formal closing of the relationship.

The implementation of the DMP program is accompanied by field assistants who are tasked with directing activities carried out according to plans and objectives. Mentoring is an important aspect to determine the effectiveness of the DMP program. Based on the findings in the field, the assistance of the DMP program in Reco and Kapencar villages was carried out in three aspects, namely:

1. Assistance in the context of group management and management is carried out at the preparatory stage.
2. Assistance in the context of strengthening the capacity of group members is carried out at the preparation and growth stages.
3. Assistance in the context of strengthening group businesses, namely on-farm and off-farm businesses.

Based on the type of assistance referred to, training to increase group business capacity, especially in the on-farm aspect, will increase agricultural production. The form of mentoring intervention that is carried out well increases the effectiveness of the DMP program so that an increase in agricultural production can be achieved.

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Effect of Institutional Growth (X3) on Agricultural Production (Y1)

The results of this study prove that institutional growth (X3) has a positive effect on agricultural production (Y1), with a t count of 2,996greater than 1.96 and a p-value of 0.003 smaller than 0.05. The higher the institutional growth (X3), the higher the agricultural production (Y1), the lower the institutional growth (X3), and the lower the agricultural production (Y1). In this study it was found that institutional growth was getting better, in the sense that at the independence stage of the DMP program (4th year), the group developed to be more active in realizing the DMP program, the more active members in the DMP program, the higher the farmer's production. The results of the study also found that at the independence stage of the DMP program, the group's assets increased according to the target set, besides that the farmer group became more dynamic, independent, and confident.

The study also found that at the independence stage, group efforts become more productive and prospective. The group develops according to the stages of the DMP program (preparation, growth, development, independence). There are efforts from the group, to develop the members' willingness to learn through activities related to the DMP program. There are efforts from the group, to develop a sense of concern for the success of the DMP program through member discipline. Based on the Ministry of Agriculture Regulation Number 15 of 2015 concerning Guidelines for the Food Independent Village Program, the implementation of the DMP program is carried out through four stages, namely preparation, growth, development, and independence. The DMP program, which was implemented in the research location villages, has gone through 4 stages, so it has passed the institutional growth stage that focuses on growing group businesses, including on-farm businesses. Activities that have been carried out at the growing stage will increase the effectiveness of the DMP program, to increase agricultural production. The results of this study are consistent with Puspa's (2013) research which found that the ability of the implementing apparatus and the needs of the group had a high influence on the level of effectiveness of the Food Independent Village program, both individually and together.

Effect of Member Participation (X4) on Agricultural Production (Y1)

The results of this study prove that the participation of members (X4) has a positive effect on agricultural production (Y1) with a t count of 2.204 which is greater than 1.96 and a p-value of 0.028, which is smaller than 0.05. The higher the participation of members (X4), the higher the agricultural production (Y1), the lower the participation of members (X4), and the lower the agricultural production (Y1). Farmer participation is the participation of farmers both individually and in groups with full awareness and responsibility in the field of agricultural business. Participation is also a very important factor in carrying out various agricultural activities or programs. This participation can be in the form of participation in the decision-making stage, participation in the implementation stage, and participation in the evaluation stage. Participation is defined as the mental involvement or thoughts and emotions or feelings of a person in a group situation that encourages him to contribute to the group to achieve a goal. Active involvement in participating does not only mean physical involvement. Participation can be defined as the involvement of thoughts, emotions, or a person's feelings in a group situation that encourages him to contribute to the group to achieve goals. In general, farmer groups are formed to solve problems faced by farmers that cannot be solved individually, farmer groups can be formed independently or based on policy interests from the Government through the Department of Agriculture. Economic activity, in general, is largely

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determined by the agricultural sector, so prominent development is also in the agricultural sector. One way to further support agricultural development is by developing farmer groups in villages and sub-districts.

Farmer groups are formed to solve problems faced by farmers that cannot be solved individually, farmer groups can be formed independently or based on policy interests from the Government through the Department of Agriculture. Economic activity, in general, is largely determined by the agricultural sector, so prominent development is also in the agricultural sector. One way to further support agricultural development is by developing farmer groups in villages and sub-districts. Farmer group is an institution that exists at the farmer level and was formed to organize farmers in farming. The Ministry of Agriculture defines a farmer group as a group of farmers/ranchers/planters formed based on common interests, common environmental conditions (social, economic, and resources), and familiarity to improve and develop member businesses. Farmer groups are formed by and for farmers, to overcome common problems in farming and strengthen the bargaining position of farmers, both in the market for agricultural products and facilities. Farmer groups are a place for teaching and learning for their members to improve knowledge, skills, and attitudes as well as the growth and development of independence in farming.

Agricultural extension activities are essentially coaching the farmers who are members of farmer groups. According to Herawati and Pulungan (2006), one of the agricultural extension strategies for building self-reliance, initiative, responsibility, and participation of the farming community in planned and measurable agricultural development is the realization of agricultural extension programs at each regional level. The form of farmer participation in planning agricultural extension programs is the presence and active participation of farmers in suggestions/suggestions during the agricultural extension planning meeting. The suggestions received mean that they have made a greater contribution to the preparation of agricultural extension programs. The development of agricultural extension programs with farmers implies a broad view of community participation. Participation is community involvement in action and reflection or a process of empowerment and active involvement in decision-making in all program-making activities. One of the successes of agricultural extension in farmer groups is very dependent on the involvement of farmers in participating in agricultural extension activities organized so that extension workers do not only do something for the farmers but also do something with the farmers. Farmers participate in providing input in the preparation of agricultural extension programs, especially regarding the needs, desires, and problems they face in managing their farming business. The participation and active role of affinity group members in developing the group will increase the effectiveness of the DMP program implementation. The better the participation of affinity group members, the more effective the DMP program will be, thus increasing agricultural production.

Effect of Policy Makers Commitment (X5) on Agricultural Production (Y1)

The results of this study prove that the commitment of policymakers (X5) has a positive effect on agricultural production (Y1) with a t count of 3.335 greater than 1.96 and a p-value of 0.001 smaller than 0.05. The higher the commitment of the policymakers (X5), the higher the agricultural production (Y1), the lower the commitment of the policymakers (X5), and the lower the agricultural production (Y1). Greenbergand Baron (2010), said that work commitment is an individual as a member of the organization who can identify with certainty the goals and values of the organization, the desire to belong to the organization, and the ability to try to belong to the organization. According

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to Edwards III (in Nursalam, 2010), the implementation of public policy is a process that is between the policy formulation/formulation stage and the policy evaluation or influence stage. Thus, understanding what happens after the program is formulated is a matter of implementation. Policy implementation is the process of unifying various elements to obtain results from the programs that have been made, this process takes place flexibly to achieve adjustments among the elements that support the implementation process to achieve program objectives.

Truly a public policy is to be implemented successfully, then the policy requires that the policy be constantly assessed or reformulated to get input, what often happens is that policymakers tend to formulate the problems faced by the target group, but do not define the problem itself. Programs made for policy implementation require the commitment of the government as policymakers so that the DMP program can be carried out by the expected goals. Various programs that have been carried out to implement a policy will fail because the program implementers lack the commitment to the DMP program. The DMP program reflects more of a consensus and ignores the true belief in the success of the program. Commitment of policymakers or in this case the government's commitment, play an important role in the effectiveness of the DMP program. The form of government commitment is, among others, the commitment to distribute aid according to the plan, monitoring, and mentoring, including after the DMP program enters the independence stage. Good government commitment will increase the effectiveness of the DMP program so that it can increase agricultural production. According to Eva (2013), the ability of the implementing apparatus has a high influence on the effectiveness of the Food Independent Village program.

The Influence of Socialization and Training (X1), Mentoring (X2), Institutional Growth (X3), Member Participation (X4), and Commitment of Policymakers (X5) to Food Security (Y2).

Based on the research objectives, the results of the test on the influence of the factors that affect the effectiveness of the DMP program on household food security are explained as follows:

Effect of Socialization and Training (X1) on Food Security (Y2)

The results of this study prove that socialization and training (X1) has a positive effect on food security (Y2) with a t-count value of 2.842 greater than 1.96 and a p-value of 0.005 smaller than 0.05. The higher the socialization and training (X1), the higher the food security (Y2), the lower the socialization and training (X1), the lower the food security (Y2). The level of education is also a description of the knowledge and insight possessed, with the higher a person's education he is considered to be more knowledgeable and more correct in thinking, these things will also determine a person's socioeconomic level in society. Knowledge is not only obtained through formal education, specifically for knowledge about agriculture can also be obtained from counseling and courses (Zulfan & Tengku in Hamrat, 2018). The knowledge gained through the process of socialization and training in the DMP program can directly affect the food security of farmers. The food security of farmers is indicated by the availability and affordability of food. Through the DMP program, food needs can be produced and provided by members. Through the DMP program, at the independence stage (4th year), households have more freedom in getting access to food, both in quality and quantity. Through the DMP program, the availability of food consumed by household members is increasing with the orientation of being nutritious, balanced, healthy, and safe. The socialization and training carried out can improve the knowledge and skills of affinity group members, especially in terms of the objectives and directions of implementing the DMP program. The impact of the training will make

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members of the affinity group able to carry out the DMP program well, so it will increase the food security of members of the affinity group.

Effect of Mentoring (X2) on Food Security (Y2)

The results of the study prove that mentoring (X2) has a direct effect on food security (Y2) with a t count of 1.129 less than 1.96 and a p-value of 0.259 greater than 0.05. Based on these results, assistance has a positive effect on food security but is not significant. However, the mentoring variable affects food security through agricultural production with a t count of 2.358 greater than 1.96 and a p-value of 0.019 less than 0.05. Adi (2003) explained that mentoring has a more basic and direct role in intervening with farming communities. Mentoring has a facilitative role, an educational role, a community representative role, and a technical role. The implementation of the DMP program is accompanied by a field assistant who is in charge of directing activities carried out according to plans and objectives. Mentoring is an important aspect to determine the effectiveness of the DMP program. Considering that the DMP program is carried out in the form of on-farm and off-farm, a companion is also tasked with providing advice and direction on the cultivation aspect. The form of mentoring intervention that is carried out properly will increase the effectiveness of the DMP program so that an increase in agricultural production can be achieved.

The implementation of the DMP program in the first year is carried out by program assistants, who are recruited by the Provincial Food Security Agency. In Wonosobo Regency, two assistants are tasked with assisting all groups of recipients of the DMP program. However, the assistant staff is on duty for three years, or three program periods. Furthermore, in the implementation of the fourth year of the DMP program, the task of mentoring is carried out by agricultural extension workers in the local targeted areas. In general, agricultural extension workers are tasked with assisting all farmer groups in a village, not specifically assisting the implementation of the DMP program so the intensity and quality of assistance are different. This is an evaluation and input to the government as a policymaker in determining the working period of the DMP program companion.

Effect of Institutional Growth (X3) on Food Security (Y2)

The results of the study prove that institutional growth (X3) has a positive effect on food security (Y2), with a t-count of 2.389 greater than 1.96 and a p-value of 0.017, smaller than 0.05. Institutional growth is an increase in group capacity that is carried out through increasing asset capacity, dynamics, willingness to learn, and discipline. The better the institutional growth carried out, the higher the food security of farmers, conversely the worse the institutional growth carried out, the lower the food security of farmers. Based on field observations, it was found that the dynamics of the DMP program recipient group were more mature when they entered the fourth stage of program implementation. Institutions that have developed have made program objectives more achievable, so that food security for members of affinity groups can be achieved. The results of this study are consistent with Puspa's (2013) research which found that group needs have a high influence on the effectiveness of the Food Independent Village program and individually or together. Group needs can be interpreted as a group that grows and develops.

Effect of Member Participation (X4) on Food Security (Y2)

The results of the study prove that member participation (X4) has an effect on food security (Y2) with a t count of 1.732 which is smaller than 1.96 and a p-value of 0.084 which is greater than

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0.05, means the hypothesis is rejected. Member participation affects food security but does not significantly affect food security. The participation of members in implementing the DMP program will encourage the achievement of the DMP program objectives. The participation of members in implementing the DMP program will encourage the achievement of the goals of the DMP program, so that the higher the participation of members, the realization of food security can be realized. The results of this study are in line with the evaluation of the implementation of the DMP program conducted by the Food Security Agency of Central Java Province (2015). The evaluation was carried out in 2015 on 7 districts receiving the DMP program, but not including Wonosobo District. The evaluation results show that there is a decrease in member participation, between the preparation stage (first year) compared to the independent stage (fourth year). The cause of the decline in member participation in the period of mentoring activities that ended in the second year. Based on the results of the research and the referred reference,

Effect of Policy Makers Commitment (X5) on Food Security (Y2)

The results of the study prove that agricultural production (Y1) has a positive effect on food security (Y2), with a t-value of 4.303 which is greater than 1.96, and a p-value of 0.000, which is smaller than 0.05. The higher the agricultural production, the higher the food security, conversely the lower the agricultural production, the lower the food security. The commitment of policymakers affects food security but is not significant. In the previous discussion, it has been stated that the mentoring variable has no significant effect on food security. In line with this, the commitment of policymakers or in this case the government shows that the results have no significant effect on food security. The research was conducted in the fourth year of implementation of the DMP program, while the commitment and presence of the government were seen by members of the DMP program group in the early stages of program implementation. In the first year or program preparation stage, the government attends and communicates with the DMP program recipient groups to determine the type, timing, and distribution of assistance included in group building. Furthermore, the presence of the government is represented through the role of companion. While on the other hand, starting in the third year, the role of assistant staff will be replaced by agricultural extension workers. Although in terms of function, agricultural extension workers also carry out a mentoring function, similar to what the assistants do, the assistants are more technical and specific in assisting the program. This is thought to make the commitment variable of policymakers have an insignificant effect on food security.

Truly a public policy is to be implemented successfully, then the policy requires that the policy be constantly assessed or reformulated to get input, what often happens is that policymakers tend to formulate the problems faced by the target group, but do not define the problem itself. Programs made for policy implementation require the commitment of the government as policymakers so that the DMP program can be carried out by the expected goals. Various programs that have been carried out to implement a policy will fail because the program implementers lack the commitment to the DMP program. The DMP program reflects more of a consensus and ignores the true belief in the success of the program. Commitment to policymakers, namely the government plays an important role in the successful implementation of the DMP program, including in assisting the successful implementation of the DMP program. In the affinity group with high government commitment, the objectives of the DMP program can be achieved, including realizing food security.

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Effect of Agricultural Production (Y1) on Food Security (Y2)

The results of the study prove that agricultural production (Y1) has a positive effect on food security (Y2), with a t-value of 4.303 which is greater than 1.96, and a p-value of 0.000, which is smaller than 0.05. The higher the agricultural production, the higher the food security, conversely the lower the agricultural production, the lower the food security. The activities of the DMP program include activities in the upstream and downstream sectors. DMP program activities can increase farmers' production because there are efforts to increase the added value of a product. The DMP program that is implemented effectively has proven to be able to increase the agricultural production of a household receiving the DMP program. The form of DMP program activities, namely on-farm and off-farm activities that are oriented to the agricultural production process, can encourage an increase in farmers' income which in turn will have an impact on household food security.

Food security is the condition of the fulfillment of sufficient food, both quantity, and quality, safe, diverse, nutritious, and affordable so that people can live healthy, active, and productive lives. Based on this understanding, to achieve food security for a person or community, the availability of food in terms of quantity must be fulfilled. Increasing agricultural production of members of the DMP program affinity group will also have a positive impact on increasing food security. The results of this study are consistent with Wahed's (2015) research that production has a significant effect on the welfare of rice farmers (NTP). Rice production depends on two variables, namely harvested area and yield per hectare, if the harvested area or productivity per unit area has increased which in turn will automatically improve the welfare of rice farmers, and the welfare of farmers is an indicator of food security. The results of Siregar's research (2013) stated that there was an increase in the income of the beneficiaries of the DMP program by 52%. The increase in income received by members of the group receiving the DMP program provides greater access to improve household food security.

CONCLUSION AND SUGGESTION

Based on the results and discussion, the conclution are as follows:

1. Recipients of the DMP program gave good responses and high categories for socialization and training, mentoring, institutional growth, member participation, the commitment of policymakers, agricultural production, and food security.
2. Socialization and training, mentoring, institutional growth, member participation and commitment of policymakers have a significant effect on agricultural production.
3. Socialization and training, and institutional growth have a significant effect on food security, while the variable of assistance, member participation, and commitment of policymakers, it does not significantly affect food security.

Based on the results and discussion and conclusions, some suggestions that can give to make the program better are as follows:

1. To increase agricultural production and household food security, it is necessary to increase the quality and quantity of socialization and training, mentoring, institutional growth, member participation, and commitment of policymakers.
2. The role of government and program assistance needs to be carried out in an integrated and sustainable manner so that program objectives can be more effectively achieved.
3. Intensive efforts are needed by the government and program assistants to maintain consistency in member participation, considering that at the program independence stage (fourth year), member participation shows a downward trend.

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6 (1): 123-147, May 2022

REFERENCES

Adi, A. 1998. Communication and Household Food Security by Archaeological Type in Pasuruan Regency, East Java. Bogor Agricultural University Graduate School.

Adi, I, R. 2003. Empowerment, Community Development, and Community Intervention. FEUI. Jakarta.

Ali, A., D. B. Rahut, & B. Behera. 2016. Factors Influencing Farmers' Adoption of Energy-Based Water Pumps and Impacts on Crop Productivity and Household Income in Pakistan. Renewable and Sustainable Energy Reviews 54. Elsevier: 48–57.

Ahyari, A. 2004. Production Management: Production System Planning.Yogyakarta: BPFE. UGM

Ariola, M. M. 2006. Principles and Methods of Research. Philippines. Rex Book Store Inc.

Budiani, N. W. 2007. Effectiveness of the "Eka Taruna Bhakti" Youth Reduction Unemployment Program in Sumerta Kelod Village, East Denpasar District, Denpasar City. Inputs, vol. 2(1) : 49-57.

Casley, D. & Kumar, K. 1991. Monitoring and Evaluation of Agricultural Projects, University of Indonesia Press.

Central Java Province Statistics Agency, 2019. Percentage of Poor Population by District/City in Central Java Province 1996-2019, Semarang.

Central Java Provincial Government. 2014. Regional Regulation Number 5 of 2014 concerning Regional Medium-Term Development Plans for 2013-2018. Semarang.

Chin, W. 1998. The partial least squares approach to structural equation modeling. Modern Methods for Business Research. Vol. 295, No. 2: 295–336. USA.

Churchill, G. A. 2005. Fundamentals of Marketing Research Volume 2. 4th ed. Jakarta. Erlangga Publisher.

Department of Food, Agriculture, and Fisheries, 2018. Map of Food Security and Vulnerability of Wonosobo Regency. Wonosobo.

Fariani, F. 2014. Effectiveness of the Infrastructure Development Acceleration Program in Cilegon City. Sultan Ageng Tirtayasa University.

Food Security Agency. 2009. General Guidelines for Food Independent Village Action Program, Ministry of Agriculture, Republic of Indonesia.

Food Security Agency. 2015. Evaluation of the Food Independent Village Program. Central Java Provincial Government. Semarang.

Food Security Agency. 2019. Map of Food Security and Vulnerability, Central Java Provincial Government. Semarang.

Gujarati, D. 2004. Basic Econometrics, 4th Edition. New York. The McGraw-Hill Companies.

Gustiyana, H. 2003. Farming Income Analysis for Agricultural Products. Salemba four, Jakarta.

Ghozali, I. & Fuad. 2008. Structural Equation Modeling. Semarang. Diponegoro University Publishing Agency.

Government of the Republic of Indonesia. 2015. Presidential Regulation Number 2 of 2015 concerning the 2015-2019 National Medium-Term Development Plan. Jakarta.

Government of the Republic of Indonesia. 2014. Law Number 18 of 2012 concerning Food. Jakarta.

Greenberg, J. & Baron, R. A. 2010. Behavior in Organizations: Understanding and Managing the Human Side of Work. 10th Edition. Prentice Hall International Inc.

Hamdi, A. S. & Bahruddin, E. 2012. Quantitative Research Methods Applications in Education. Yogyakarta. Deepublish Publisher.

Hamrat, M. B. 2018. The Effect of Knowledge, Skills, and Attitudes on the Acceptance Level of Organic Cultivation Technology (Case Study of Organic Vegetable Farmers in Ma'rang Subdistrict, Pangkep Regency). Thesis. Graduate School of Agribusiness Studies Program, Hasanuddin University. Macassar.

Handoko, H. 2009. Management, Edition II, BPFE and LMP2M-YKPN, Jakarta. IInternational Labor Organization, 1971. Introduction to Work Study (trans. JL Wetik), Erlangga, Jakarta.

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
6 (1): 123-147, May 2022

Hartono. 2008. Statistics for Research. Yogyakarta. Institute for the Study of Society and Women's Philosophy.

Herdiana. 2014. Household Food Security in Ciamis Regency. SEPA : Vol. 11 No.1 September 2014 : 21 – 34. Gajah Mada University. Yogyakarta.

Hernanto. 1994. Agricultural Science. Self-Help Spreader. Jakarta.

Joesron, T. S. & Fathorrozi M. 2003. Microeconomic Theory, Equipped with Several Forms of Production Functions. Salemba Empat Publisher. Jakarta.

Keban, Y. T. 2008. Six Strategic Dimensions of Public Administration Concepts, Theories, and Su, Gava Media, Yogyakarta.

Language Center Ministry of National Education. 2008. Indonesian Language Dictionary, Minister of National Education RI, Jakarta.

Mahsun, M. 2006. Measurement of Public Sector Performance. BPFE Publisher, Yogyakarta.

Maryuni, S. 2017. Effectiveness of Output Innovation Program Implementation in Pontianak City, Public Spirit Volume 12 Number 1 Page 25, April 2017.

Miller, R. L. & R. E. Miner. 1999. Intermediate Microeconomic Theory. Raja Rafindo Persada. Jakarta.

Ministry of Agriculture. 2007. Strategic Plan 2010 – 2014 Agency for Extension and Development of Agricultural Human Resources. Accessed viahttp://www.pertanian.go.id/ sakip/ admin/ file/ RENSTRA_BPPSDMP_20102014.

Ministry of Agriculture. 2015. Regulation of the Minister of Agriculture of the Republic of Indonesia Number: 15/permetan/hk.140/4/2015 concerning the 2015 Food Independent Village Guidelines. Jakarta.

Ministry of Agriculture. 2015. Strategic Plan of the 2015-2019 Food Security Agency. Jakarta.

Notoatmodjo, S. 2010. Health Promotion Theory and Applications. Rineka Cipta, Jakarta.

Nugroho, D. & Riant. 2004. Public Policy for Developing Countries. PT Alex Media Komputindo, Jakarta.

Nurhemi. 2014. Mapping of Food Security in Indonesia: TFP Approach and Food Security Index. WP/4/2014, Bank Indonesia.

Nursalam. 2010. Implementation Policy to Increase Production of Local Food Crops and Food Security in the Province of East Nusa Tenggara (NTT). Jurnal Public Administration, Volume 1 No.1.

Official Gazette of Statistics Number No. 05/01/33/Th. XI, 3 January 2017. Poverty Profile in Central Java September 2016. Semarang.

PPK-LIPI. 2004. Household Food Security in Rural Areas: Concepts and Measures.www.bappeda-jabar.

Prasetya, D. Y. 2018. the Role of Facilitators and Farmers' Participation in Upsus Rice Crops Program in Gadingrejo District, Pringsewu Regency. Thesis.JAgribusiness affairs, Faculty of Agriculture, University of Lampung. Bandar Lampung.

Purwaningsih, Y., Hartono, S., Masyhuri, & Mulyo, J. 2010. Household Food Expenditure Patterns According to Food Security Levels in Central Java Province. Journal of Development Economics Volume 11(2), Pages 236 – 253.

Purwaningsih, Y., Hartono, S., Masyhuri, & Mulyo, J. 2010. Household Food Expenditure Patterns According to Food Security Levels in Central Java Province. Journal of Development Economics.

Puspa, R. 2013. The Effectiveness of the Food Independent Village Action Program in Karangcegak Village, Kutasan District, Purbalingga Regency. General Sudirman University. Purwokerto.

Puspadi, K. 2002. Reconstruction of Agricultural Extension Systems. Postgraduate. Bogor.

Regulation of the Minister of Agriculture of the Republic of Indonesia Number: 15/permentan/hk.140/4/2015 concerning Guidelines for Food Independent Villages in 2015. Jakarta.

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
6 (1): 123-147, May 2022

Saeppudin, E., Damayani, N., & Budiono, A. 2018, Community Participation in the Bandung Regency Food Independent Village Program, Sosiohumanities-Journal of Social Sciences and Humanities, Vol 20 No. March 1, 2018.

Sarwono, J. 2007. Path Analysis For Business Research With SPSS. Yogyakarta. Andi Publisher.

Simon, G. A. 2012. Food Security: Definition, Four Dimensions, History. Retrieved April 18, 2018, address:http://www.fao.org/fileadmin/templates/ERP/unit/F4D.pdf.

Sugiyono. 2013. Statistics For Research. Bandung. Alphabet.

Sukandar, D. 2006. Study of Food Security in Poor and Non-Poor Households. dept. Community Nutrition FEMA_IPB. Bogor.

Suratiyah, K. 2015. Farming Science. Jakarta. Self-Help Spreader.

Susanti, Y. 2015. Effectiveness of the Sustainable Food House Area Model Program (M-KRPL) in Ngletih Village, Kandat District, Kediri Regency. Unesa. Surabaya.

Termeer C. J. A. M., S. Drimie, J. Ingram, L. L. Pereira & M. Whittingham. 2018. A diagnostic framework for food system governance arrangements: The case of South Africa. NJAS - Wageningen Journal of Life Sciences. Vol 84: 85-93.

Wahab, A. & Solichin. 2005. Policy Analysis from Formulation to Implementation of State Policy, Bumi Aksara, Jakarta.

Warr, P. 2014. Food Insecurity and Its Determinants, The Australian National University.

Wibawa, S., Purbokusumo, Y., & Pramusinto, A. 1994, Evaluation of Public Policy, PT. Raja Grafindo Persada, Jakarta.

Yulita, R. 2016. Effectiveness of Implementation of Village Fund Allocation (ADD) in Setako Raya Village, Pranap District, Indragiri Hulu Regency, JOM FISIP Vol 12 No. 1, pp. 25-34.