

Women Farmer's Participation and Empowerment to Support Family Food Self Sufficiency

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Abstract. Agricultural development is currently prioritizing on the technical aspects and pays less attention to human factors which resulting in low empowerment of farmers. The patriarchal system which still prevails in rural areas causing the involvement of women in the decision-making process is still very low, so as the importance of empowering women in rural areas in order to make them more confident about themselves and are able to formulate and convey the problems efficiently. The research objectives are (1) to analyze the level of women farmers' empowerment, and (2) to analyze factors affecting the level of participation and empowerment of women farmers. Data were processed using quantitative analysis supported by qualitative analysis. The results obtained the level of women farmer's empowerment in medium category, the activities of Women Farmers Group (KWT) categories of low in making decisions, increasing the additional income and distribute production, the medium category, namely access to information and regulate family food consumptions, and high category that aspect of utilizing their yards. Factors that mostly affect the empowerment of women farmers are a long time needed to cultivate the farm yard, the level of income, cosmopolitan level, motivation level, intensity of interaction within the groups, the development of technical capabilities, the intensity of the assistance, government policy support, social environment conduciveness, interpersonal, group, behavior in using media, planning, income utilization, and monitoring and evaluation activities.

Keywords: communication, empowerment, participation, women farmers group

Introduction

Law No. 18 Year 2012 on Food which specifically stipulates that the government organizes the setting, guidance, control and supervision of the availability of adequate food, both in quantity and quality, diversity, nutritious, balanced, security, equitability, affordable and not incompatible with religion, belief and culture to live healthily, active and productive. Several studies show that national food sufficiency proved unable to ensure the realization of food security at the regional level (regional), households or individuals. Data show that the proportion of households in each province energy deficit remains high (Ministry of Agriculture, 2012). Data quality consumption of the population

of West Java province with the score Pola

Pangan Harapan (PPH) or Food Expectation Scheme was 77.6 in 2012 and down to 74.9 in 2013 (Central Statistics Beaureau / BPS 2013, processed Food Security Agency / BKP, Ministry of Agriculture, 2014a), specialized Bogor District with a score PPH 67.2 in 2012 and 66.2 in 2013. Based on RPJMN (National Medium Term Development Plan) 2015-2019, national targets PPH score of 92.5 in 2019 with the national PPH in 2014 baseline of 81.8, so Bogor Regency remains as the area whose population food quality below national recommendation.

The problem of food which associated with agricultural growing for political benefit is not getting better, so it is quite difficult to

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achieve the food self-sufficiency. Policies are made to achieve food self-sufficiency, one of which is seen from the aspect of food consumption.

Nurdin (2011) highlighted that the stagnation of food system centered approach based on imports and cheap food that has become the basis of food security being stuck on food imports. This situation will trigger the conflict with the realization of sovereign food self-sufficiency. Agricultural development is currently prioritizing the technical aspects and pay less attention to the human factor which resulting in the low empowerment of farmers. The implementation of the program is characterized by pseudo participation, inequality, dependency and unsustainable program (Purwanto et al., 2012; Hadiyanto, 2009).

The weaknesses of policy and implementation of the programs that have been done by the government in order to empower communities to manage local resources that give no real impact on the rising standards of living in social and economic, due to low participation. The program failed to reach the target due to the lack of the information presented, information requirements and less understanding and applied innovation, style messaging, channels and media that are less precise, the commitment of stakeholders, and sectoral ego/ regional autonomy (Aminah et al. 2015; Erwiantono et al. 2013).

Therefore, it is appropriate if the government promotes community empowerment program in rural areas to increase the income growth of the poor which can be done in two models: Firstly, social assistance, namely by reducing the expenditure burdened of the poor, and second, the empowerment of providing employment to adequate income to the poor. Development in rural areas does not only include processes that are economical and rely on technology but it should also be able to bring about social change in society as a whole process of social and cultural progress in the rural communities.

The era of development is characterized by a centralized, top-down and linear communication application and it makes farmers remain powerless (Sumardjo, 1999).

Approach to the role of institutions in the area based on local wisdom and resources are needed to launch the process of communication in the delivery of the message

to the public so as to produce the desired feedback. Problems on the lack of information, communication media mismatches as well as no desire to promote what publics expect the public (grassroot) due to linear communication and empowerment policies and programs that are likely still top down at this time to make the public as well as farmers become less powerful and hinder their desire to participate in rural development. To that end, a "bottom up" and "top down" are combined to get to the empowerment groups (capacity building of grassroots community) with the companion role as motivator, facilitator and motivator (Aminah et al. 2015) to be one of the solutions in solving this problem.

The participation of the whole society will be an indicator of the success of participatory development and modern women as members of society, women through various feminism institutions have the same rights as men in the successful environment environment (Rinawati 2004), so that women can solve their own problems and help resolve problems in the family even in the environment. For the women, they should seek to empower themselves in order to be more independent and not live in dependence.

Research on the empowerment of women in rural areas are considered important, therefore, women should seek to empower themselves in order to be independent and not live in dependence (Supriya 2004). Women farmers can take part in the development programs to take advantage of the social role where research on communication empowerment of women farmer towards food self-sufficiency in rural areas takes place. Hubeis (2010) showed that basically women have a role in the household who were implicated to (1) the role of production and domestic housewife; (2) social role as social beings who need to interact with their environment and as breadwinners (extra). As a result of the increased revenue generated from the additional living patterns and as a consequence of the role of women, the daily need of household food is expected to be fulfilled so as to improve the living standard of the family (Elizabeth 2007). For that aspect of powerless women, it needs a further study.

The research objective is to analyze the level of empowerment of women farmers and to analyze the extent of factors that affect participation and empowerment of women farmers towards food self-sufficiency of the family.

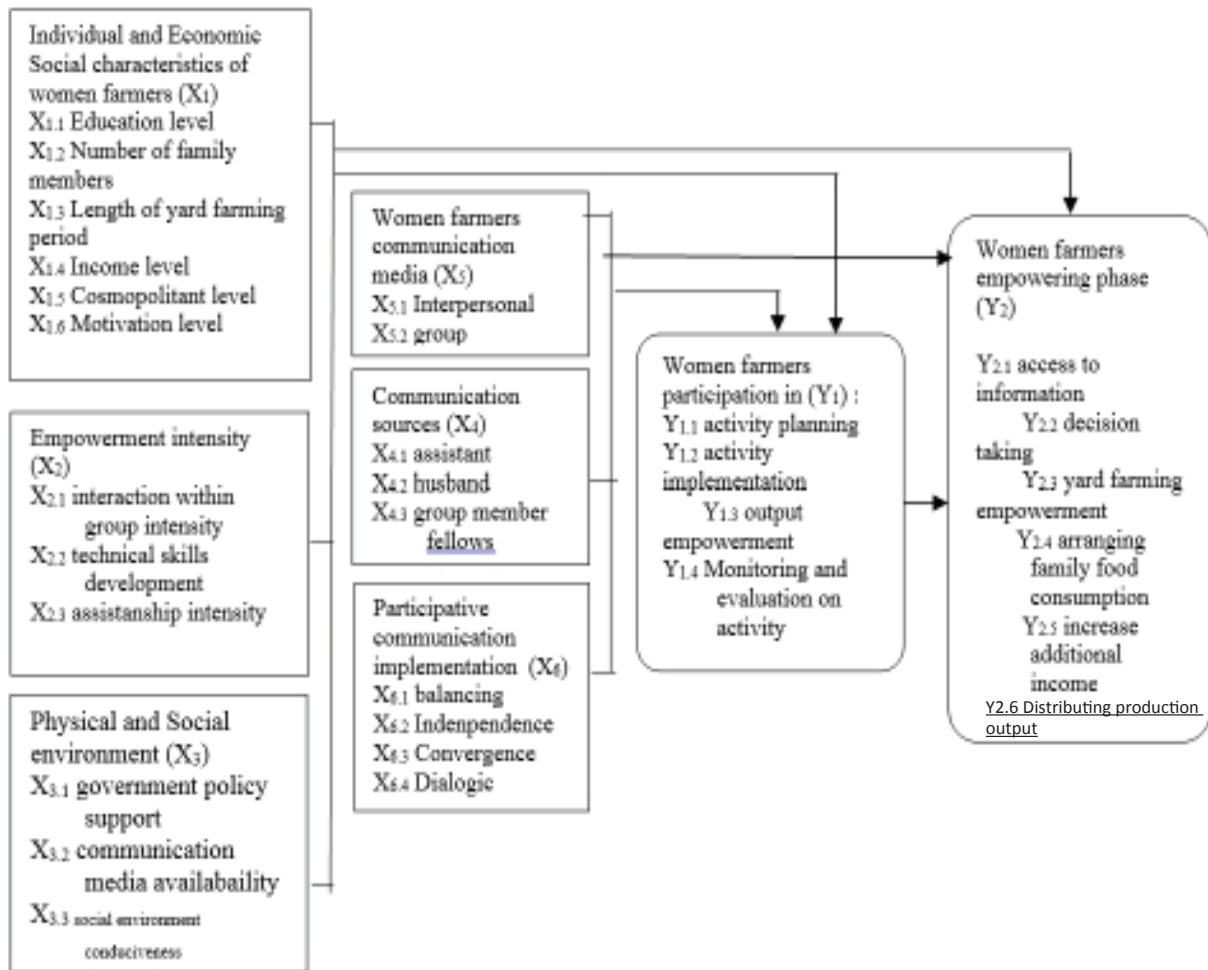


Figure 1 Framework of thinking on the relations between variables tested in the research

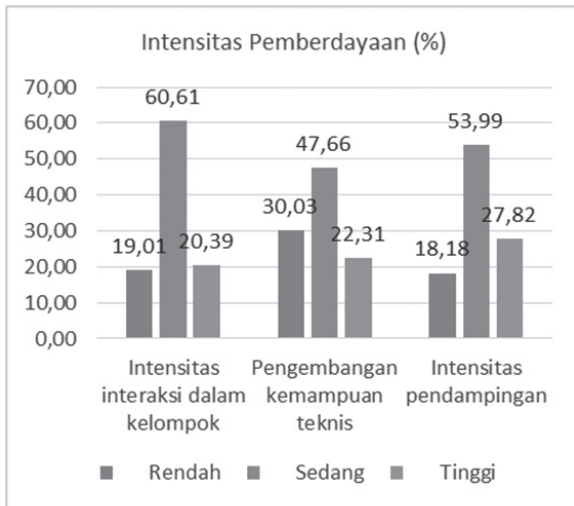
Characteristic and Empowerment of Women Farmer

Individual and socio-economic characteristics of women farmers are education, number of family members, old farming grounds, cosmopolitan and motivation possessed assumed to be influential to the activities undertaken so that the results can be maximized to farm yard. Therefore, the active and participation of women farmers in the empowerment programs should be improved by optimizing the media, sources, and effective communication, including the intensity of empowerment (in the form of interaction within the group, the development of technical skills, and mentoring) as well as environmental and social variables (in the form of policy support, the availability of means of communication, the affordability of resources, and the conducive of social environment). The communication media that women farmers could use as a measurement in the study includes interpersonal media, media groups and the print and electronic media.

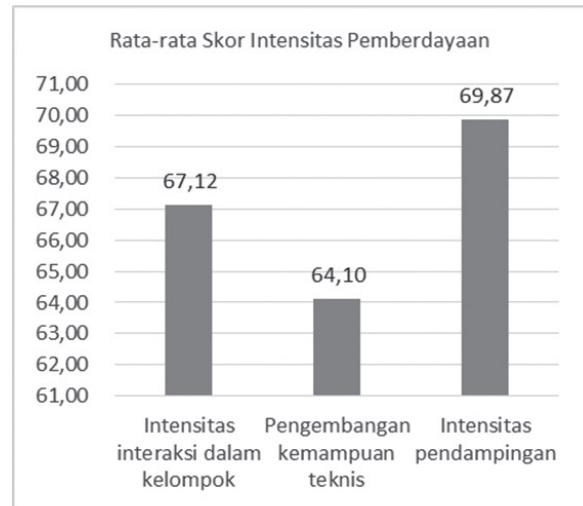
The participation rate of women farmers is measured in the planning, implementation, product utilization, monitoring and evaluation. The participation rate of women farmers is relatively high and it can affect the level of their empowerment. The level of women farmer empowerment can be indicated in different capabilities: (1) access to information; (2) taking decisions; (3) utilizing their yards; (4) set of family food consumption; (5) additional increase in family income; (6) products distribution. The frame of relationships among variables tested in the study is presented in Figure 1.

Research Methodology

The study was conducted in Bogor Regency, West Java Province which is engaged in the empowerment of women farmers of P2KP (Food Consumption Diversification Acceleration) and KRPL (Region Sustainable Food House) from the year 2012 to 2014, selected 15 KWT on the District 14 with 363 respondents. Data collection techniques



Graph 1: The percentage of women farmers based on empowerment intensity variable category.



Note: average score: Low: 0-65; Medium: 66-80, High: 81-100

Graph 2: The average score based on empowerment intensity variable category

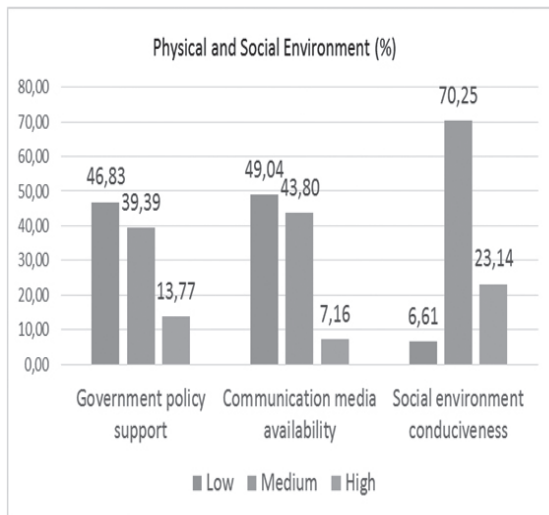
performed through (1) Observation; (2) Interview; (3) In-depth interviews; and (4) Documentation. Processing data using quantitative analysis and to support quantitative analysis we provide information based on qualitative data (Moleong 1991). The quantitative analysis used analysis of the influence of the relationship between independent variables and the dependent variable is done through Structural Equation Modelling (SEM).

The interaction intensity within the group in the medium category with the average score was off 67.12. The development of technical capabilities in the low category with the average score was of 64.10 and the intensity of mentoring in middle category with a score average was of 69.87. These indicate that the assistants have carried out mentoring programs in the group by developing the technical skills to farm in the yard and improving knowledge about aspects of consumption, distribution as well as aspects of food availability with the intensity of mentoring is often performed at least once a month on a regular basis. The percentage of women farmers and the average score by category of women empowerment intensity variables is presented in Graph 1 and 2.

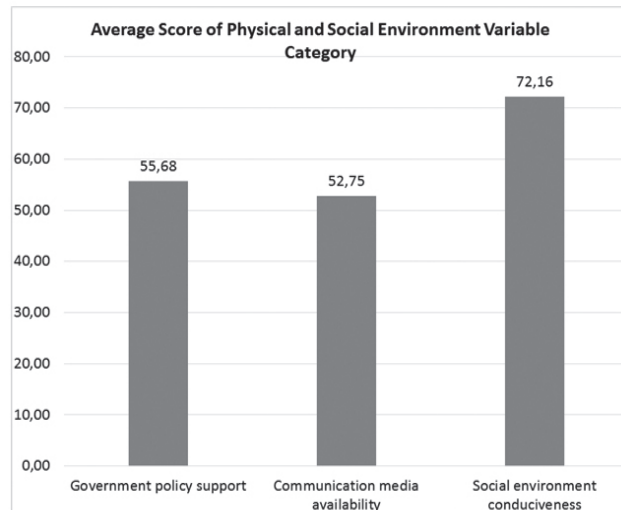
Aspects that are in the low category is government policy support and the availability of means of communication with consecutive scores averaging was 55.68 and 52.75. As for the conduciveness aspects of the social environment in the high category with the

average score was 72.16. A total of 46.83% of respondents did not know about the government policy support. In the aspect of the availability of the means of communication mostly respondents are in low and medium categories respectively 49.04% and 43.80%. Low category of government policy support women farmers do not go into the policies offered by the government and the availability of means of communication are not too concerned, depending on the ownership of each individual course. The percentage of women farmers and the average score is based on the category of the physical and social environment variables are presented in Graph 3 and 4.

Graph 4: Average score based on physical and social environment variable category Variables source of communication has the average score in the category of being the husband and his fellow group members with the average score of 75.09 and 67.49, while the assistantship aspect was at high category with the average score of 86.45. There was 92.29% of respondents said that communication with the assistants was satisfactory and intense. In the aspect of communication resources among members of the group as much as 90.63% of respondents comfortable communicating with fellow members of the group, and as much as 47.93% of women farmers are satisfied to communicate with her husband for carrying out the activities. The percentage of women farmers and the average score by category



Graph 3: The percentage of women farmers based on social and physical environment variable category



Graph 4: Average score based on physical and social environment variable category

Note: Average score: Low: 0-65; Medium: 66-80; High: 81-100

variable source of communication is presented in Graph 5 and 6.

The parameters of communication media on the aspects of the group had the average score of 82.60 rate as high category. Interpersonal and mediated aspects that are in the low category with a score average of the husband and his fellow group members with the average score of 64.01 and 61.26. Of the three, namely interpersonal communications media, and the group of media, respondents prefer media communications group. In the aspect of group communication media, the majority (56.47%) of respondents were in the high category. The aspects of interpersonal communication media most of the respondents (73.83%) are in the medium category. The percentage of women farmers and the average score by category variable communication media are presented in Graph 7 and 8.

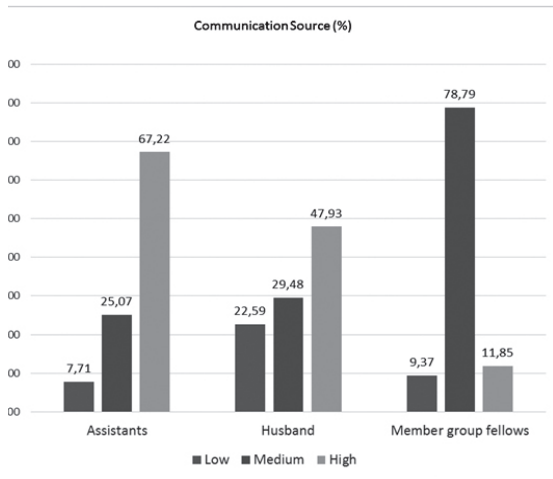
Mostly respondents did not use communication media such as home phone, cell phone, media both print and electronic. Mediated communication showed that 15.15% of respondents using this media to communicate. From the interview, respondents prefer to communicate interpersonally, due directly to the intended target and quickly got a response.

The use of mediated communication tools such as mobile phones and the internet is used by the group of management of chairman, treasurer and secretary. Most

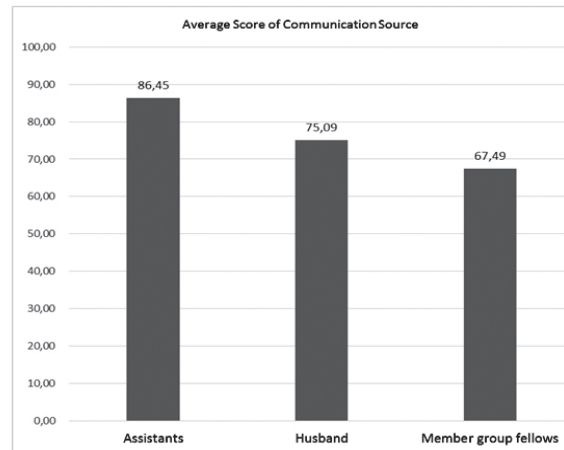
of them use mobile phones. Respondents communicate more often with assistants and chairman of the group related to the implementation of activities, sometimes performed with fellow members to exchange opinions and experiences in farming grounds

The percentage of women farmers and the average score by category in variable application of participatory communication presented in Graph 9 and 10. In the variable application of participatory communication, the independence aspect, convergence and dialogic were in a medium category with a score of flats respectively 70.51, 75.92 and 76.37. For equality aspects, it was in the low category with a score of 58.88. In the aspect of equality, 56.20% of respondents are in the medium category. For independence and dialogical aspect, respondents spread almost evenly across the three categories.

In the aspects of convergence, majority of respondents in the category that was 54.55%. From interviews with the respondents that the majority of respondents were satisfied with their group benefit. In the practice of participatory communication female members of farmers applied equally and were free to choose the desired activity in accordance with the planning and the rules imposed. The dialogue between members of women farmers with a companion and fellow members often happens although they cannot find the meeting point desired by all members of women farmers. In fact, still

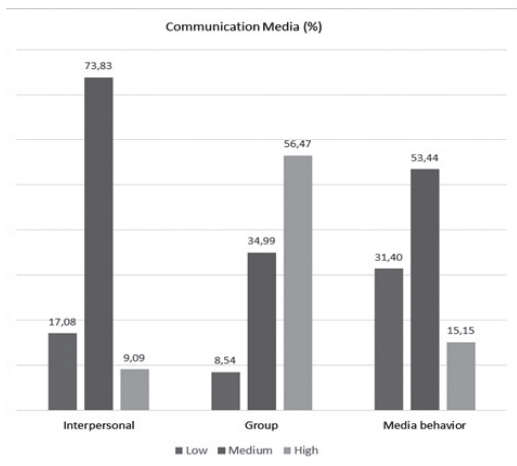


Graph 5: The percentage of women farmers based on communication source variable category.

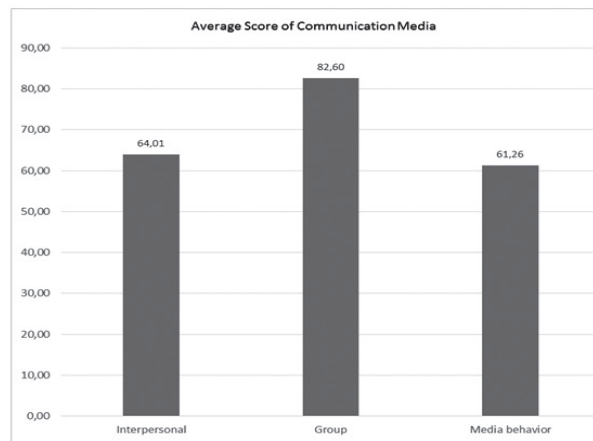


Note: Average score: Low: 0-65; Medium: 66-80; High: 81-100

Graph 6: Average score based on communication source variable category

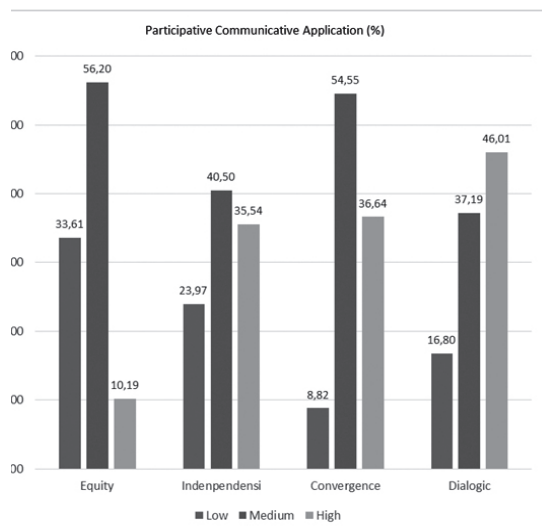


Graph 7: The percentage of women farmers based on communication media variable category.

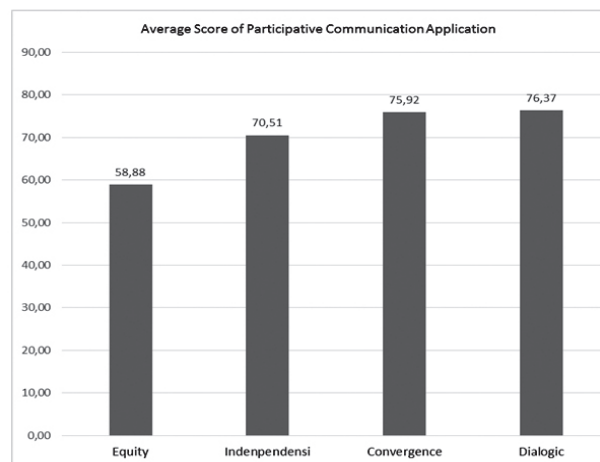


Note: Average score: Low: 0-65; Medium: 66-80; High: 81-100

Graph 8: Average score based on communication media variable category



Graph 9: The percentage of women farmers based on the application of participative communication variable category.



Note: Average score: Low: 0-65; Medium: 66-80; High: 81-100

Graph 10: Average score based on the application of participative communication variable category.

visible in the groups that the dominant groups were still the group management of chairman, secretary and treasurer and some members of women farmers only follow what has been decided.

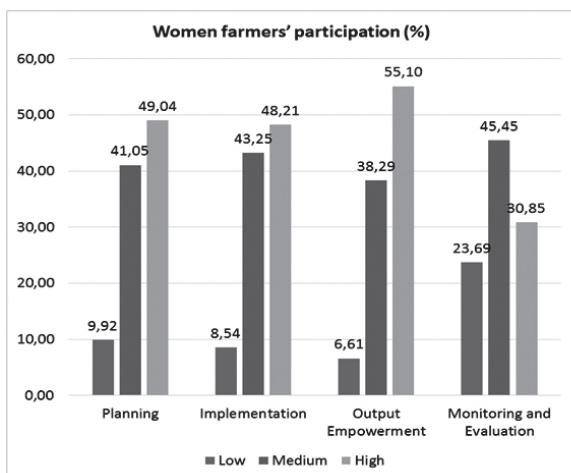
Descriptive Analysis of Women Farmer Participation

The percentage of women farmers by category of participation variable are presented in Graph 11 and average by category variable participation of women farmers are presented in Graph 12. Score flats on the participatory aspect of women farmers in middle category including planning, implementation and monitoring and evaluation of each 79.67, 79.85, and 69.05. In the aspect of product utilization, it is shown at high category with a score of 82.78. In line with the research conducted by Rinawati et al. (2007) concerning the participation of women stated that women’s attitudes toward participatory development is “supportive”, while the involvement of women in the stages of participatory development process is in the medium category. This illustrates that the trend of the attitude shown by the women do not guarantee their high involvement or consistent with their attitude, nevertheless, the contribution of women in the development process of participatory reached high category. This fact is in contrast with the low community participation in managing marine protected areas which low in rate all stages of participation (Erwiantono et al. 2013).

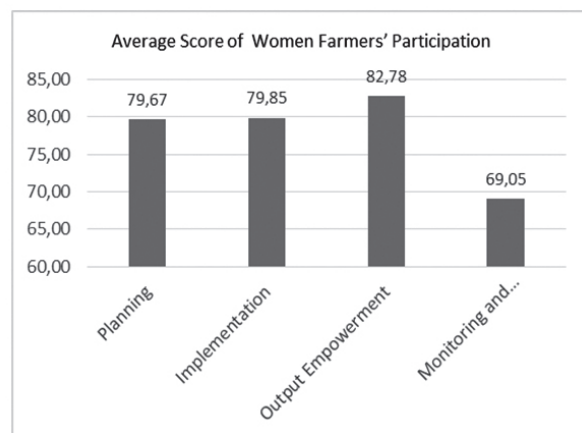
In the aspect of planning, only 9.92% of

the respondents were passive in all aspects of planning activities and 90.09% of respondents have a medium and high participatory. The similar case happened in the aspects of the implementation and utilization of the results, where respondents were passive as much as 8.54% and 6.61% where the majority of respondents in the category of medium and high. This means that respondents actively participated in the planning, implementation, monitoring and evaluation of utilization of both the group management activities as well as its members. For the aspects of planning, implementation and monitoring and evaluation which still in the medium category, it is stated that many members of women farmers who have children are still bothered with a child care problem, for it can not be continuously (daily) following the activities in the group. For monitoring the aspects of evaluation which play an active role was done by group management only and some members appointed by the group, which means that not all members participate in the activities of monitoring and evaluation.

Descriptive Analysis of Women Farmer Empowerment A number of women farmers and the average score of the participation of women farmers variables are presented in Graph 13 and 14. The total score of the empowerment of women farmers in middle category was 68.22, with details on aspects of the empowerment of women farmers are in the lower categories, namely taking decisions, increase revenue and distribute additional production, with each averaging a score of 60.62, 58.88 and 62.45, the aspect of the variable of the empowerment of women

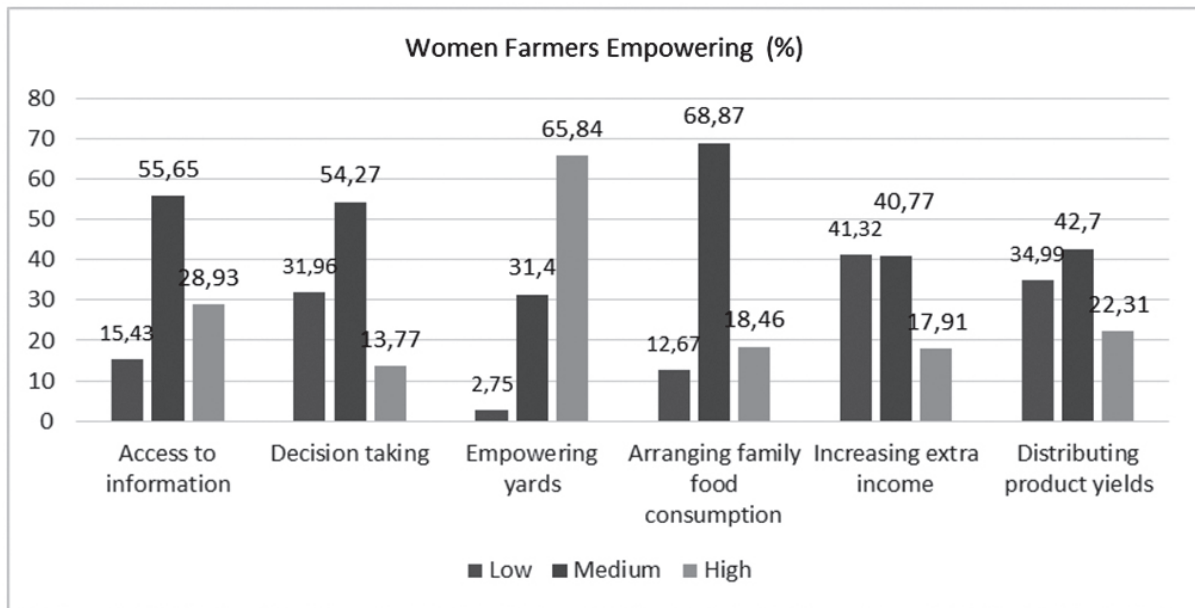


Graph 11. The percentage of women farmers based on participation variable category



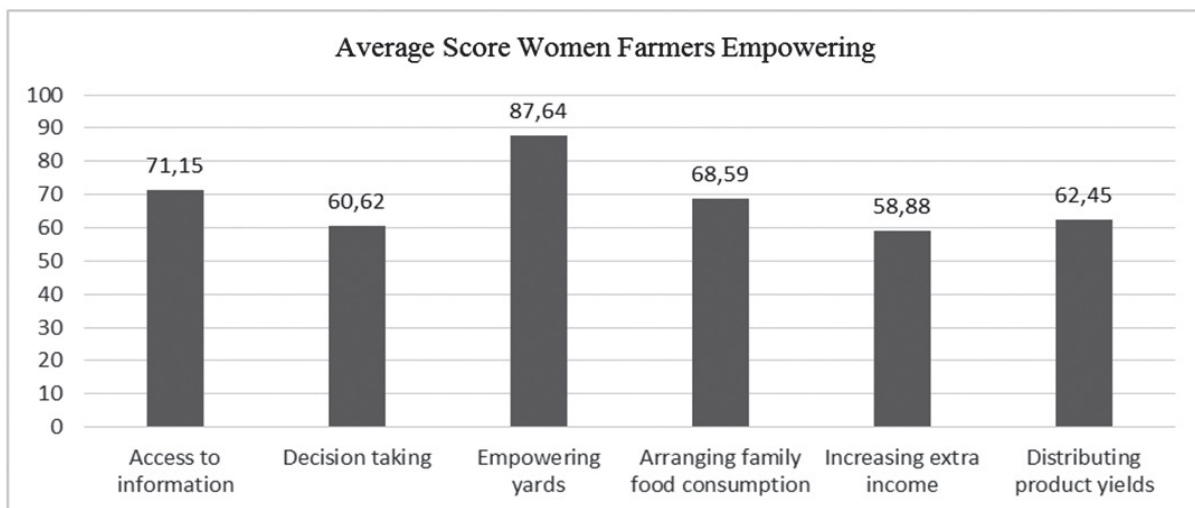
Note: Average score: Low: 0-65; Medium: 66-80; High: 81-100

Graph 12: Average score based on women farmers participation variable category



Graph 13

The percentage of women farmers based on women farmers empowering variable category



Note: Average score: Low: 0-65; Medium: 66-80; High: 81-10

Graph 14: Average score based on women farmers empowering variable category

farmers in middle category ie aspects of accessing information and regulate food consumption families, with each averaging a score of 71.15 and 68.59 and aspects of land use grounds that are in the high category with the average score of 87.64. This means that most of aspects of the variable in women farmers empowerment in the category of low and high, but it seems that the income generated from the yard is so small that it can not cover the consumption needs of the family every day. From the results of in-depth Interview to some respondents who are considered active in conducting utilization of the yard, it is found the results of the yard can not be used everyday for family

consumption, because it depends on several factors: the weather, the small yard of cultivating area and factors of planting and harvesting. When the dry season comes, the average woman farmer does not plant the yard due to hard water, since the water needs for everyday purposes was inadequate. In the harvest and planting season, women farmers are usually prefer working as contract laborers for the harvest and planting, so that the plant compound is not neglected. In other words utilization of the yard is an activity distraction to fill the spare time and not be used for the daily main activities. It happens because the results of the yard are not generating benefits economically. The

proceeds from their main job, is used to buy food for family consumption. In terms of access to information, women farmers were minimal in using means of communication and media. Until now, they rely on interpersonal and face to face communication, sometimes using a mobile phone, but rarely women farmers who use mobile phones.

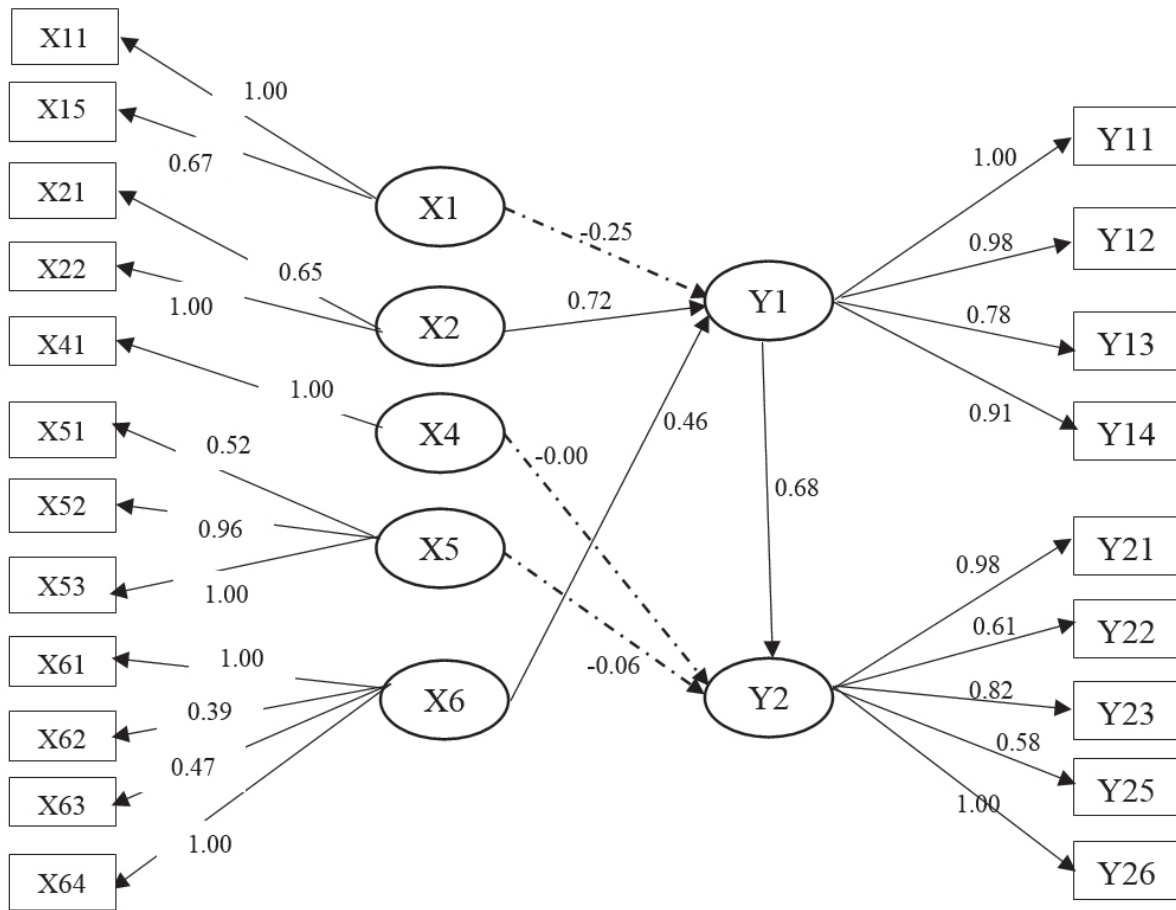
A small portion of women farmers (17.90%) has a large yard, and it used in maximum way so the results of the yard can be sold and generate additional income for the family. Most women farmers cannot sell their yard products because the results are very little and can only be used for family consumption and distributed to neighbors. In

the aspect of distributing production, a small portion of women farmers have the ability to sort through, and the results obtained used for consumption. The product of yard are sold if it was exceeded in harvest and used as seed the sustainability of cultivated plants in the yard.

Factors Influencing Empowerment Against Women Farmers

From the results obtained by SEM analysis and structural equation path diagram factors affecting variables Y1 and Y2 and as follows:

$Y1 = -0.25 * X1 + 0.72 * X2 + 0.46 * X6; R^2 = 0.47$
 (Equation 1)
 $Y2 = 0.68 * Y1 - 0.00 * X4 - 0.06 * X5; R^2 = 0.63$
 (Equation 2)



Chi-square= 499,62, df= 172, P-value= 0.0000, RMSEA=0.078

Note :

-----> : negative impact —————> : positive impact

- X1 = The Individual and Socio-Economic Characteristics of Women Farmers
- X2 = Intensity Empowerment
- X4 = Source Communications
- X5 = Media Communications
- X6 = Application Participatory communication
- Y1 = Participation of Women Farmers
- Y2 = The empowerment of women farmers

Figure 2. Structural model of women farmers' participation in cultivating yards to a standardized family food self-sufficiency

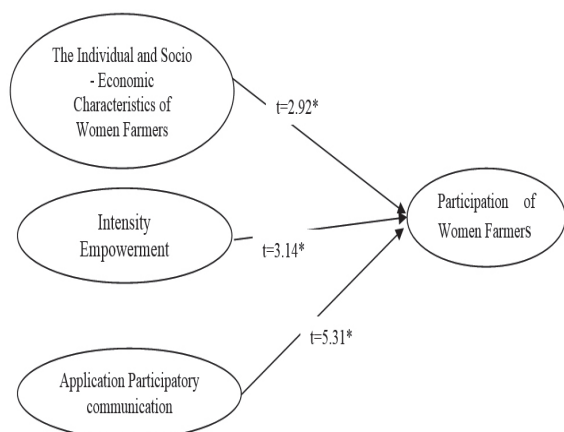


Figure 3. Factors influencing women farmer participation diagram

From equations 1 and Figure 2 was obtained $R^2 = 0.47$. The objective information that indicates that the influence of variables X1, X2 and X6 to Y1 is at 0.47 or 47% and the remaining 53% are influenced by other factors which were not examined in this study. The results of the model are presented that the factors affecting the participation of women farmers are the Individual and Socio-Economic Characteristics of Women Farmers (X1), Intensity Empowerment (X2) and Application of Participatory Communication (X6). Negatively affect the variables X1, Y1, X2 and X6 whereas positive effect on Y1.

From equation 2 and Figure 2 was obtained objective information $R^2 = 0.63$ which indicates that the influence of variables X4, X5 and Y1 to Y2 is equal to 0.63 or 63% and the remaining 37% are influenced by other factors not examined in this study. The results of the model is presented that the factors - factors that affect the empowerment of women farmers is the Source Communications (X4), Media Communications (X5) and the Participation of Women Farmers (Y1). Variables X4 and X5 negatively affect Y2, Y1 while the positive effect on Y2.

It was initially thought that variable Empowerment of Women Farmers (Y2) is influenced by variables Individual Characteristics and Socioeconomic Women Farmers (X1), Intensity Empowerment (X2), physical environment and social (X3), Source Communications (X4), Media Communications (X5), Application Participatory communication (X6) and the Participation of Women Farmers (Y1). However, research shows that not all independent variables carried have significant effects on the empowerment of

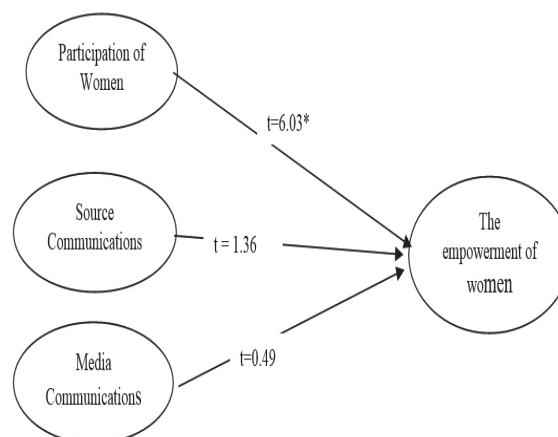


Figure 4. Factors influencing women farmer empowerment diagram

women farmers variables (Y2). Therefore the hypothesis 1 is not all accepted.

Path diagram in Picture 4 shows there is only one variable that proved significant on the empowerment of women farmers in managing their yards to the family food security namely the participation of women farmers variables (Y1), has a 6.03 t-value (> 1.96). As for the variables of participation of women farmers (Y1) is significantly affected by Individual Characteristics and Socioeconomic Women Farmers (X1) with t-value 2.92 (> 1.96), Intensity Empowerment (X2) with t-value 3.14 (> 1.96), and Application Participatory communication (X6) with 5.31 t-value (> 1.96) is presented in Picture 3.

Conclusions

The level of empowerment of women farmers in the use of the yard which is in the category of being in the groups of women farmers reached high rate on the capability to utilize their yards. It is classified in the aspect of access to information and regulate food consumption of the family and are low in aspects of decision-making increase additional revenue for families and distribution of the yard products.

Factors that affect the empowerment of women farmers significantly are Participation of Women Farmers, while the factors that affect the participation of women farmers significantly ie Individual and Social Economic Characteristics of Women Farmers, Intensity Empowerment and Participatory Communication Application.

To increase the empowerment of women farmers in utilizing their yards to reach family food security, active participation

from women farmers is strongly required through intensive counseling and continue to raise their awareness of how important to utilize the yards available. This means that the family of women farmers should be able to increase the quality of their lives, particularly in healthy and security. In addition, it is required to have a technical skills development in cultivating the yards together with other women farmer groups through knowledge sharing as well as externalization process. Apart from that, they should be able to share skills and knowledge on how to solve the problems arise through group works. The use of appropriate communication methods in counseling conducted by facilitators is very important to enable the related information transferred through participative communication implementation.

It is suggested that what to be developed in the next research is how to create a communication strategy model in empowering women farmers.

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