

Journal Homepage: -www.journalijar.com

# INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

OVANCED RESEARCH (IJAF
Article DOI: 10.21474/IJAR01/10959
DOI URL: http://dx.doi.org/10.21474/IJAR01/10959



#### RESEARCH ARTICLE

# EFFECTIVENESS OF A RURAL DEVELOPMENT PROGRAM: A CASE OF THE WOMEN-FARMERS IN AN UPLAND PROVINCE OF SOUTHERN PHILIPPINES

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# Manuscript Info

Manuscript History

Received: 12 March 2020 Final Accepted: 14 April 2020

Published: May 2020

#### Key words:-

Women-Farmers, Food Security, Rural Development, Poverty Alleviation Program

# Abstract

The Mindanao Rural Development Program Adaptable Program Loan 2- Community Fund for Agricultural Development was implemented in Southern Philippines to give the disadvantaged and vulnerable sectors, including women, the avenue to increase income using appropriate and sustainable agriculture and fishery production technologies. The study was conducted to determine the effectiveness of the program in improving income and achieving food security among the 148 randomly selected women-farmers in an upland province of Bukidnon in Southern Philippines who participated in the program. Data was gathered through a pretested questionnaire and analyzed using descriptive statistics, correlation and regression. The women-farmers were middle-aged, married with large households, members of local organizations, and tenants of small farms earning low income from both corn production and other sources. The MRDP-CFAD program was assessed as less effective in increasing productivity and income but perceived as very effective in securing food among the women-farmers. The findings of the study showed that a unit increase in the technical assistance provided by program implementers together with the availability of farm inputs and household size will improve the effectiveness of the Mindanao Rural Development Program Adaptable Program Loan 2-Community Fund for Agricultural Development among the women-farmers in upland Bukidnon province.

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# Introduction:-

Women in rural areas produce half of the world's food. Among the developing countries in the world, the Food and Agriculture Organization (FAO) estimates that almost one-half of the total agriculture labor force in the developing countries consists of women (FAO, 2011). On top of being mothers and wives, they are also farmers. Rural women fulfill many responsibilities on the farm as well as at home.

In the Philippines, the implementation of the Agriculture and Fisheries Modernization Act of 1997 (Republic Act 8435) empowers the state through the Department of Agriculture with other government agencies and non-government organizations to formulate medium and long term programs to address food security and other concerns. But despite the government's intervention on food security, the Philippines suffered heavy food shortage in 2008 which led the Filipinos to realize that the country does not have enough food stored for its people. Consequently,

poverty incidence in the upland province of Bukidnon in Southern Philippines has reached 38.8% in 2009 (National Statistics Coordination Board, 2009).

To reduce the high poverty incidence, the national government embarked on critical interventions to ensure the delivery of social and economic investments to uplift the quality of life of the people. The Mindanao Rural Development Program Adaptable Program Loan 2- Community Fund for Agricultural Development (MRDP-CFAD) Program introduced starting the year 2009 aimed at addressing the diverse priorities of poor communities in rural Mindanao, Southern Philippines which was later expanded to 225 towns in 27 provinces in the country. The program aimed to provide an avenue for the disadvantaged and vulnerable sectors, including women. Jointly funded by the World Bank and implemented through the Department of Agriculture and the Local Government Units (LGUs), the Mindanao Rural Development Program – Adaptable Program Loan Phase 2 sought to enhance rural incomes and attain food security through agri-fisheries infrastructure, livelihood enterprise, and biodiversity conservation projects (Manual, 2010). It is a municipal-based facility designed to enhance the implementation of the Local Government Code and ensure that the planning and implementation of selected devolve programs and projects in the agriculture and fisheries sector would better reflect community needs.

During the implementation period, the different municipalities complied with the requirements for social preparation. The People's Organizations (PO) put up the required project equity in cash and in-kind. The participating household provided equity for the project in cash and in-kind as determined by the PO and regularly attended capability building and other relevant training courses in corn production. The project implemented a roll-over or savings generation scheme. Periodic monitoring and assessment of CFAD implementation were conducted to ensure compliance in the operation and maintenance of the project.

On the other hand, Erlendson (2002) defines effectiveness as the extent to which objectives are met (doing the right things). Measuring program effectiveness is important to show an outcome that demonstrates that the program has met or exceeded the objectives; to determine if it needs to be adjusted or changed; and to document the need for continued funding or program expansion (Walkinginfo.org., 2013). In particular, the effectiveness of the different strategies in reducing poverty depends on their practicality and how well they address the specific problems of the poor in a given context and the way they perceive a particular opportunity to support their livelihood (Friend & Funge-Smith, 2002).

Moreover, the World Food Summit explained that food security exists when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life (Rola, 2012). Commonly, the concept of food security is defined as including both physical and economic access to food that meet people's dietary needs as well as their food preferences. Food security is built on three pillars: 1) food availability (sufficient quantities of food available on a consistent basis); 2) food access (having sufficient resources to obtain appropriate foods for a nutritious diet), and 3) food use (appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation) (WHO, 2012). However, the global food supply is threatened by a growing demand to feed an increasing population in the face of scarcity in land and water resources. Since a majority of small Filipino farmers and rural households depend on food farming, government support is critical to encourage domestic production or self-sufficiency to address poverty, food insecurity, and provide a key ingredient to economic stability in the long term (Manual, 2010).

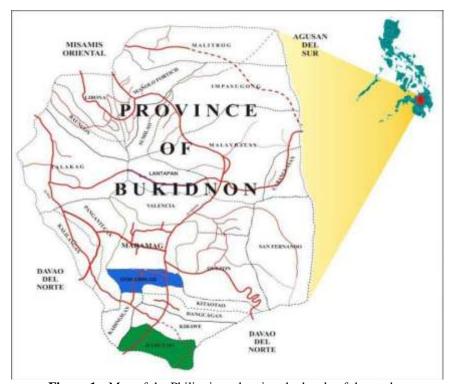
In the rural areas, the Filipino women belong to the home as they are perceived to support the children's educational needs (Rupinta, 2012). Compared to other countries, Filipino women have been treated equally with men. They have proven to be capable of carrying out responsibilities and tasks as well as their male counterparts (Women in the Philippines, 2011). In the Southern Philippines, the rural women were recognized for their increasing involvement in economic activities, being adept at multi-tasking as their urban counterparts. The World Bank during the 5th review mission in September 2010 observes that the rural women of the Mindanao Rural Development Program were getting more involved in the economic activities particularly in agriculture, which is far from the old notion that they are supposed to be home-based. The World Bank (2017) recognizes the women as the primary caregivers to families and communities, providers of food and nutrition, and served as the human link between the farm and the table.

This study tried to assess the perceived effectiveness of the MRDP-CFAD Program in increasing income and attaining food security among Bukidnon women-farmers. Specifically, it sought to describe the personal, socioeconomic and psychological profile of the women-farmers, and supportive and the program-related attributes;

determine the level of the effectiveness of the program in increasing income and attaining food security as perceived by the Bukidnon women-farmers, and assess the degree of influence of the women-farmers' profile and related factors on the perceived effectiveness of the MRDP-CFAD program. The results of this study could serve as a reference for the Department of Agriculture and the Local Government Units to improve their policies, strengthen project procedures and determine support services to make the program efficient and effective. This could also provide insights on whether to pursue the implementation of the Mindanao Rural Development Program- Phase 3.

#### **Procedure:**

This study was conducted in an upland province of Bukidnon in Mindanao, Southern Philippines (Figure 1). Specifically, the study included two of the 20 municipalities in Bukidnon province which consisted of a first-class partially urban and a 4th class municipality.



**Figure 1:-** Map of the Philippines showing the locale of the study.

Of the total 185 women-members of the MRDP-CFAD in the two municipalities, eighty percent (80%) or equivalent to 148 randomly selected women-farmers were considered sufficient to provide valid and reliable data for the study. Data was gathered using a questionnaire which was subjected to content validity by the program implementer and pretested with Cronbach's Alpha reliability coefficient of .818 interpreted as reliable. Secondary data were obtained from government documents and internet references. Statistical calculations included mean, variance, frequency, percentage, standard error of the mean, correlation and regression analysis.

# **Results and Discussion:-**

#### Personal Profile of the Women-Farmers:

The youngest woman-farmer was 27 years old and the oldest was 75 years old with the mean age of 44 years old. A majority (92%) of them were married with a mean household size of five (5) members which implies having bigger household size thus, more mouths to feed.

### **Socioeconomic Profile of the Women-Farmers:**

All of the women-farmers have attained basic education which could help them become more receptive to new ideas and perceptive of the relevance of farming technologies. Data revealed that the majority (95%) of the womenfarmers originated from the Central Philippines, thus considered migrants to Bukidnon province in Southern Philippines. They were members of Women Organizations (62%) and Farmers' Organizations (49%) with a mean

farming experience of 17 years. There were more tenant women-farmers than land-owners of small farms with a mean farm size of 1.3 hectares. The average annual income of the women-farmers ranged from US\$712.31 to US\$1,051 per hectare which fluctuated over time but lower than the national average corn production per hectare. All of the women-farmers raised corn, worked as farm labor (39%) as well as engaged in swine production (15-19%). Data showed that the total mean gross income of the women-farmers per year was below the national poverty threshold level.

# **Psychological Attributes of the Women-Farmers:**

Based on the data, the women-farmers obtained an overall mean aspiration score of 4.61 interpreted as having very high aspirations in life. The women-farmers highly aspired to increase their income to uplift the living standard of their family, have available food all the time, send their children to school, and gain more knowledge and skills on farming. Besides, the women-farmers have very strong attitude towards the MRDP-CFAD program with an overall mean score of 4.70. They believed in the goals and objectives of the program; that corn production is one of the best ways to uplift the lives of their family, and that the program can provide them with an opportunity to increase income.

## **Supportive Attributes of the MRDP-CFAD:**

The women- farmers indicated that most of their farm inputs were available in the locality. They procured organic fertilizer (57%), inorganic fertilizer (56%), seeds (56%), pesticides (56%) and herbicides (57%) within their respective municipality. Data revealed that 70% of the women-farmers met with the program implementer monthly and they had access to credit for farming from Women Association (61%) and Farmers' Association (38%). The women-farmers marketed their corn products within (73%) and outside (59%) the municipality. Data showed that 76% of them got information about the program from agricultural extension workers, while 33% of them were informed through their friends, other farmers, neighbors, relatives, radio and television. All women-farmers (100%) had attended a corn production training, while 79% of them attended the MRDP orientation and monthly meetings but have not participated in cross visits nor field trips.

# **MRDP CFAD Program-Related Factor:**

# **Relevance of the Program Strategies:**

A grand mean score of 4.49 was obtained which means that the strategies employed by MRDP-CFAD program were perceived to be relevant in attaining the objectives of the program (Table 1). In particular, the women-farmers rated as highly relevant the purposive targeting of the beneficiaries (4.55); the needsand competencies-based interventions (4.54); tapping the expertise of the government, non-government and private sectors (4.51) and the provision of appropriate training (4.51).

**Table 1:-** Relevance of the Mindanao Rural Development Programstrategies.

Indicators	Mean	Qualitative
	N=148	Description
1. Purposive targeting of beneficiaries	4.55	Highly relevant
2. Needs- and competencies-based interventions	4.54	Highly relevant
3. Tapping of the expertise of the DA, LGU, academic institutions,	4.51	Highly relevant
NGOs and the private sector		
4. Provision of appropriate training	4.51	Highly relevant
5. Need-based and market-driven projects	4.49	Relevant
6. Savings mobilization	4.45	Relevant
7. Development and distribution of IEC materials to CFAD	4.40	Relevant
stakeholders		
Grand Mean	4.49	Relevant

#### Legend:

8	
	Qualitative Description
4.51-5.0	Highly Relevant
3.51-4.5	Relevant
2.51-3.5	Moderately Relevant
1.51-2.5	Less Relevant

1.0-1.5   Not Relevant
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#### **Competence of the MRDP-CFAD Implementers:**

The program implementers were rated by the women-farmers with a grand mean score of 4.46 which means that they are highly competent in implementing the program (Table 2). The program implementers possessed appropriate skills and abilities in doing field works (4.55) and assisted the women-farmers in every activity (4.57).

**Table 2:-** Competence of the Mindanao Rural Development Program implementers.

Indicators	Mean	Qualitative Description		
	N=148			
1. They assist participants in every activity.	4.57	Highly competent		
2. They have the appropriate skills and abilities in doing	4.55	Highly competent		
field works.				
3. The implementers are competent in their own field of	4.50	Competent		
expertise.				
4. They are responsive to inquiry, needs, interest and	4.47	Competent		
problems of farmers. They are responsive to inquiry, needs,				
interest and problems of farmers.				
5. They have the ability to explain topics clearly by	4.43	Competent		
relating to real farm situation.				
6. They have the capacity to practice what they preach.	4.41	Competent		
7. They have the ability to manage time wisely.	4.40	Competent		
8. They have the ability to develop, provide and use 4.39 Competent				
handouts, reading materials and appropriate visual aids during				
meetings and training.				
Grand Mean	4.46	Competent		

# Legend:

	Qualitative Description
4.51-5.0	Highly Competent
3.51-4.5	Competent
2.51-3.5	Moderately Competent
1.51-2.5	Less Competent
1.0-1.5	Not Competent

# **Usefulness of the MRDP-CFAD Monitoring Activities:**

The women-farmers rated the regular monitoring of the implementer with a grand mean score of 4.53 interpreted as highly useful for the success of the program (Table 3). In particular, the women-farmers believed that the regular monitoring ensures that farm inputs were used as intended (4.59), the program implementer conducted field visits regularly to monitor activities (4.54) and the monitoring activity was done to improve the program (4.55).

**Table 3:-** Usefulness of the Mindanao Rural Development Programmonitoring activities.

	Mean	Qualitative Description
Indicators	N=148	
1. A regular monitoring is conducted to ensure that farm	4.59	Very useful
inputs are used as intended.		
2. The monitoring activity is being done to improve the	4.55	Very useful
program		
3. Program implementers conduct regular schedule of visit	4.54	Very useful
to monitor activities.		
4. Post activity monitoring is conducted.	4.48	Useful
5. Supervision is conducted in every area.	4.48	Useful
GRAND MEAN	4.53	Very useful

	Qualitative Description
4.51-5.0	Very Useful
3.51-4.5	Useful
2.51-3.5	Moderately Useful
1.51-2.5	Less Useful
1.0-1.5	Not Useful

Overall, the women-farmers found the strategies of the MRDP-CFAD as relevant, the implementers as competent, and the monitoring activities as useful which could promote the successful implementation of the program.

Extent of Effectiveness of the MRDP-CFAD Program in Attaining Food Security and Increasing Income

# Perceived Effectiveness of the MRDP-CFAD in Attaining Food Security:

The women-farmers perceived the MRDP-CFAD program as very effective in attaining food security with a grand mean of 4.51 (Table 4). Particularly, the women-farmers perceived that during the last 12 months, it never happened that their child/children have not eaten for a whole day because there wasnot enough money to buy food; that they cut the size of their child's/children's meals because there was not enough food available and that the other adults in the household ever cut the size of their meals or skip meals because there was not enough food to eat. The womenfarmers perceived themselves as food secure as they have not experienced hunger during the program implementation. Thus, the women-farmers perceived the program to have provided food for their families.

**Table 4:-** Effectiveness of the Mindanao Rural Development Program in attaining food security as perceived by the women-farmers.

women-farmers.					
	Mean	Qualitative			
Indicators	N=148	Description			
1. I worried whether my food would run out before I get money to	4.49	Effective			
buy more.					
2. The food that I bought just didnot last, and I didnot have money to	4.36	Effective			
get more.					
3. I couldnot afford to eat balanced meals.	4.53	Very effective			
4. I relied on only a few kinds of low-cost foods to feed the children	4.43	Effective			
because I was running out of money to buy food.					
5. I couldnot feed the children balanced meal, because I couldnot	4.41	Effective			
afford it.					
6. The children were not eating enough because we just couldnot	4.47	Effective			
afford enough food.					
7. My family cannot eat the kind of food we want.	4.39	Effective			
8. In the last 12 months, since last month, me and the other adults in	4.57	Very effective			
my household cut the size of our meals or skipped meals because there					
wasnot enough food to eat.					
9. In the last 12 months, since last month, I at lesser than I felt I 4.50 Effective					
should because there wasnot enough food to eat.					
10. In the last 12 months, since last month, I felt hungry but didnot eat	4.49	Effective			
because I couldnot afford to buy food.					
11. In the last 12 months, since last month, I lost weight because we	4.56	Very effective			
didnot have enough food to eat.					
12. In the last 12 months, since last month, me and other adults in my 4.55 Very effective					
household did not eat for a whole day because there was not money to buy					
for food.					
13. In the last 12 months, since last month, I cut the size of my	4.60	Very effective			
child's/children's meals because there wasnot enough food available.					
14. In the last 12 months, since last month, the children skipped	4.56	Very effective			
meals because there wasnot enough money to buy for food.					
15. In the last 12 months, since last month, my child/children were	4.56	Very effective			

hungry but we just couldnot afford more food.		
16. In the last 12 months, since last month, my child/children did not	4.62	Very effective
eat for a whole day because there wasnot enough money to buy food.		•
Grand Mean	4.51	Very effective

Scale	Quantative Description Quanta	iuve interpretation
4.51-5.0	Never or it happens once only	Very Effective
3.51-4.5	Rarely (it happens 2-3 times)	Effective
2.51-3.5	Occasionally (it happens 2-3 times)	Moderately Effective
1.51-2.5	Often (it happens 4-5 times)	Less Effective
1.0-1.5	Always (it happens 8 or more times)	Ineffective

Ovalitativa Interpretation

# **Effectiveness of the MRDP-CFAD Program in Increasing Productivity:**

Ovalitative Description

The data showed a fluctuating trend in the production of the women-farmers per hectare of corn with a dramatic increase during the last year of the program (Table 5). The mean yield of 3.67 metric tons per hectare was 8.48% lower than the average yield of corn production in Bukidnon, as reported by the Provincial Agriculture's Office. Hence, the MRDP-CFAD program was less effective in increasing the corn production of the women-farmers in Bukidnon.

Table 5:- Effectiveness of the Mindanao Rural Development Program in increasing productivity among the womenfarmers.

Implementation	Mean Yield (mt/ha)	Provincial	Mean	Mean Score	Qualitative Description
Year		Yield/ha.			
Year 1	3.74	4.08		1	Less effective
Year 2	3.45	3.88		1	Less effective
Year 3	3.88	3.91		1	Less effective
Year 4	3.47	3.87		1	Less effective
Year 5	3.54	4.04		1	Less effective
Year 6	3.95	4.25		1	Less effective
Mean	3.67	4.01		1	Less effective

#### Legend:

**Qualitative Description** 

C		
Above the provincial mean	3	Effective
Within the provincial Mean	2	Moderately Effective
Below the provincial mean	1	Less Effective

# **Effectiveness of the MRDP-CFAD in Increasing Income:**

The women-farmers have obtained the lowest mean gross income of PhP35,615.67 (US\$712.31) and the highest mean gross income of PhP52,566.45 (US\$1,051.32) (Table 6). The data reflected a fluctuating trend of the mean gross income during the program implementation. The mean gross income of the women-farmers averaged Php42,035.05 (US\$840) per year per hectare. This showed that the mean gross income of the women-farmers was below the provincial mean gross income by 3.12% based on the data provided by the Bukidnon Provincial Agriculture's Office. This indicates that the MRDP-CFAD program on corn production was less effective in increasing the income of the women-farmers in upland Bukidnon.

Table 6:- Effectiveness of the Mindanao Rural Development Program in increasing income.

Implementation	Mean	Income	Provincial	Mean	Mean	Qualitative
Year	(Php/ha)		Income(Php/ha.)		Score	Description
Year 1	35,615.67		39,372.00		1	Less effective
Year 2	38,118.77		40,468.40		1	Less effective
Year 3	42,202.43		39,960.20		1	Effective
Year 4	37,515.41		40,271.70		1	Less effective
Year 5	44,227.20		46,460.00		1	Less effective

Year 6	52,566.45	53,550.00	1	Less effective
Mean	42,035.05	43,347.05	1	Less effective

# **Qualitative Description:**

Above the provincial mean	3	Effective
Within the provincial Mean	2	Moderately Effective
Below provincial mean	1	Less Effective

Overall, the MRDP-CFAD program is less effective in increasing productivity and income, though the women-farmers perceived themselves as food secure with the program. This perception of having food security could be attributed to income obtained by the women-farmers from sources other than the corn production implemented by the MRDP-CFAD.

# **Results of the Correlation Analysis:**

Results of the correlation analysis (Table 7) showed that the effectiveness of the MRDP-CFAD was significantly associated with age (p<.05), household size (p<.05), availability of farm inputs (p<.01), the relevance of program strategies (p<.01), the competence of implementer (p<.01) and usefulness of program monitoring (p<.01). For the personal factor, the null hypothesis was rejected in terms of age and household size but accepted in terms of marital status. On the other hand, the effectiveness of the MRDP-CFAD was not related to the socioeconomic status of women-farmers thus, the null hypothesis was accepted. Similarly, the effectiveness of the MRDP-CFAD was not related to the psychological profile of the women-farmers thus, the null hypothesis was therefore accepted.

Moreover, the MRDP-CFAD related factor was significantly related with the effectiveness of the program in terms of the relevance of program strategies (p<.01), the competence of implementer (p<.01) and usefulness of program monitoring (p<.01). Based on the findings, the null hypothesis was rejected.

**Table 7:-** Results of the correlation analysis between independent variables and the effectiveness of the Mindanao Rural Development Program.

Independent Variables	Correlation coefficient	Significance	
Personal Factor			
Age	171	.038*	
Marital Status	070	.396 <sup>ns</sup>	
Household size	.210	.011*	
Socioeconomic Factor			
Educational Attainment	052	.531 <sup>ns</sup>	
Ethnic Origin	010	.907 <sup>ns</sup>	
Membership in Organization	a	a	
Farming experience	.036	.668 <sup>ns</sup>	
Tenurial Status	106	.202 <sup>ns</sup>	
Farm Size	100	.228 <sup>ns</sup>	
Total Income	069	.401 <sup>ns</sup>	
Psychological Factor			
Aspiration in Life	.120	.146 <sup>ns</sup>	
Attitude towards the program	.050	.545 <sup>ns</sup>	
Supportive Factor			
Source of Information	.133	.107 <sup>ns</sup>	
Attendance in Training	.002	.978 <sup>ns</sup>	
Field Exposure	.044	.595 <sup>ns</sup>	
Attendance in Meeting	086	.301 <sup>ns</sup>	
Availability of Inputs	311	.000**	
Frequency of Meetings	037	.656 <sup>ns</sup>	
Frequency of Contact with Implementer	133	.107 <sup>ns</sup>	
Availability of Credit	a	a	

Availability of Market	017	.837 <sup>ns</sup>
MRDP-CFADRelated Factor		
Relevance of Program Strategies	.375	.000**
Competence of Implementer	.651	.000**
Usefulness of Program Monitoring	.957	.000**

- \*\*- significant at .001 level
- \* significant at .05 level
- <sup>ns</sup> not significant
- a cannot be computed because at least one of the variables is constant

#### Factors Associated with the Effectiveness of the MRDP-CFAD Program:

The findings indicated that the age and household size of the women-farmers played a significant role in the effectiveness of the MRDP-CFAD with a correlation coefficient of -.171 and .210, respectively. The negative correlation coefficient of age means that the effectiveness of the program was inversely related to the age of women-farmers. Older farmers tend to resist modern techniques for fear of failure. This also suggested that the MRDP-CFAD could be more effective among young, energetic and innovative farmers than the older ones. On the other hand, the positive correlation coefficient of the household size means that the larger the household size, the more effective the MRDP-CFAD will become. A large household could provide the labor necessary in corn production.

However, the effectiveness of the MRDP-CFAD was not related with what the farmers aspire in their lives and how positive or negative their attitudes are towards the program. Meanwhile, the availability of inputs (p<.01) was significantly correlated with the effectiveness of the MRDP-CFAD program with a correlation coefficient of -.311. This means that the lesser the inputs available, the more effective is the program. High prices of inputs could affect income from corn production. Caraballe (2004) concluded that the availability of inputs within and outside the village is very essential in technology diffusion.

Furthermore, the relevance of the strategies (p<.01), the competence of implementers (p<.01) and the monitoring conducted (p<.01) were significantly correlated with the effectiveness of the MRDP-CFAD with correlation coefficient of .375, 651 and .957, respectively. This means that the more relevant the program strategies, the more competent the implementer, and the regular the monitoring was conducted, the more effective the MRDP-CFAD program in increasing income and achieving food security among the women-farmers in upland Bukidnon.

Extent of Influence of the Independent Variables to the Effectiveness of the MRDP-CFAD Program

As reflected in Table 8, the R<sup>2</sup> value of 92.2% implies that the variation in the effectiveness of the program is explained by the combination of the factors in terms of the usefulness of program monitoring (p<.01), the competence of implementers ((p<.01), attendance in training (p<.05), availability of farm inputs (p<.01) and household size (p<.05) with corresponding beta weights of .906, .079, -.047, -.278 and .175, respectively. The 7.8% is attributed to those factors that do not significantly influence effectiveness of the MRDP-CFAD program as well as other variables not included in the study.

**Table 8:-** Stepwise regression analysis showing the factors that predict the effectiveness of the Mindanao Rural Development Program.

Variables entered	Coefficients				
	Unstanda	Unstandardized		Standardized	
	В	Std. Error	Beta	t	Sig.
(Constant)	.228	.120		1.897	.060
Usefulness of program monitoring	.894	.029	.906	30.404	.000
Competence of implementer	.072	.027	.079	2.656	.009
Attendance in seminars and training	078	.038	047	-2.027	.045
Availability of farm inputs	113	.031	278	-3.599	.000
Household size	.032	.014	.175	2.325	.021

R = .960  $R^2 = .922$  F-Value = 571.079 Probability = 0.000

Based on the results, the regression equation for the study was derived as:

 $Y(eff) = .228 + .894X_1 + .072X_2 - .078X_3 - .113X_4 + .032X_5$ 

Where: Y = effectiveness of the MRDP-CFAD program on food security and increased income

 $X_0 = Constant$ 

 $X_1$  = Usefulness of program monitoring

 $X_2$  = Competence of implementer

 $X_3$  = Attendance in seminars and training

 $X_4$  = Availability of farm inputs

 $X_5$  = Household size

# Predictors of the Effectiveness of the MRDP-CFAD Program:

The beta value of 90.6% showed that the usefulness of program monitoring was the best predictor for the effectiveness of the program. This implies that the more frequent the monitoring, the more effective is the MRDP-CFAD program in increasing income and achieving food security of the women-farmers. Ahmed (2019) emphasizes that helping employees to monitor their performance helps build their initiative to do work well which can increase their engagement and personal drive.

The second predictor with a beta weight of 7.9% was the competence of the implementer. The result implies that the more competent the program implementer is, the more effective is the MRDP CFAD program. Amias & Segumpan (2018) stress that program administration should sustain highly skilled and knowledgeable staff.

The third predictor with a beta weight of -4.7% was the attendance in seminars and training. This implies that the farmers' attendance in training influenced the effectiveness of the MRDP CFAD program. The knowledge, skills, and techniques acquired by the women-farmers from the different training attended could support the adoption of technology and innovations. However, the negative value implies the inverse effect of exposure to different training on the effectiveness of the program. According to Manalo, et al. (2010), farmers preferred to attend orientation, training, and seminars. With the different agricultural programs introduced to the women-farmers, the possibility that the MRDP-CFAD program would be taken for granted becomes higher.

The fourth predictor was the availability of farm inputs with a beta weight of -27.8%. This implies that the availability of inputs influenced the effectiveness of the program in increasing income and achieving food security of the women-farmers. Its negative beta value means that as the inputs become more available in the locality, the higher will be the production expenses incurred and the lesser would be the income from corn production. According to Mukherjeel et al. (2011), the effectiveness of technology can be increased by reducing costs and making inputs available. The Fintrac University Knowledge & Learning Brief (2015) acknowledges that expanded uptake of modern agro-inputs by smallholder farmers is a key to improving agricultural productivity and competitiveness.

The fifth predictor was the household size with a beta weight of 17.5%. This implies that the larger the household size of the women-farmers, the higher was its influence in the effectiveness of the MRDP-CFAD program. Larger households would ensure available labor for the farm. Ofuoko, et al. (2009) find that the larger the household size, the more members would assist in pest control, which results in the adoption of more IPM practice.

#### Conclusion:-

The women-farmers in upland Bukidnon province were middle-aged, married Filipinos, with large households who have attained basic education. They were members of farmers' and women organizations, tenants with small farms earning low income from both corn production and other sources. They highly aimed for a better life for their households with very favorable attitudes towards the MRDP-CFAD program. They were informed about the program by the agricultural extension workers through training, orientations and monthly meetings. They interacted regularly with the implementers during the conduct of the program. They availed farm inputs from the local markets, accessed credit from their association and marketed their farm products locally.

The strategies adopted by the MRDP-CFAD program were perceived as relevant by the women-farmers. They recognized the competence of the implementer and the monitoring activities were regarded as useful in the implementation of the program. The women-farmers assessed the MRDP-CFAD program as less effective in increasing productivity and income but perceived the program as very effective in securing food for their household.

The age and household size of the women-farmers together with the availability of farm inputs, the relevance of program strategies, the competence of the implementer and usefulness of program monitoring supported the effectiveness of the MRDP-CFAD program in increasing income and achieving food security of the women-farmers. Moreover, a unit increase in the usefulness of program monitoring, competence of implementer, attendance in seminars and training, availability of farm inputs and household size enhances the effectiveness of the MRDP-CFAD among the women-farmers in Bukidnon province, Southern Philippines.

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