

Participation Of Family-Women In Agricultural Production : A Case Study Of Jaffna District, Sri Lanka

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Abstract:

Family women play significant and crucial role in agricultural development and allied fields. Several factor both economic and non economic factors are responsible for women participation. However, it is most unfortunate that role of women in agriculture has not highlighted. Therefore the effort were made to analyse the work performed by women in agriculture. This study was under taken in Valikamam area of Jaffna district. A total of 185 household were selected through proportionate random sampling. The selected respondents were interview personally using pre tested well structured questionnaire. The data were analysed using appropriate statistical tool -probit model. The finding showed that the women contribution to the agricultural production is highly in family-women. The family-women age, income level and tenure rights had inverse relationship with participation in agriculture while, educational level, years of experience, distance of the woman's farm from homestead, member of cooperative ,woman contribution in agriculture ,extension services and level of contribution had positive and significant relationship.

Keywords :AGRICULTURAL PRODUCTION , FAMILY-WOMEN, VALIKAMAM , PROBIT.

1.Introduction

Sri Lanka is predominantly an agricultural country with 82% of the households still in the rural sector. Women constitute 50.7% of the population and are considered to be a valuable resource potential needed to be in the rural agricultural sector of Sri Lanka. Women contribution of agriculture is increasing to the national economy. Women are the majority of the people reside in rural areas and derive their livelihood from agriculture.

Most of the Sri Lankan women are participated in agricultural sector rather than industrial sector. Women perform numerous labour intensive jobs in agricultural production. Such as land clearing, land tilling, planting, weeding, fertilizer/manure application to harvesting, food processing and livestock management. Traditionally Jaffna women are regarded as home makers who overlooks and coordinate activities at home. Despite this Jaffna rural women play important and dominant role in agricultural production.

The role of women in agricultural production has however not widely been explored. Inadequate information on the level of women participation in agriculture, and the women's substantial contribution in agriculture are neglect in policy issues. Considering therefore, this study will provide the development planning and policy formulation that is more relevant to the need of women farmers. It will also provide a basis for further research on the impact of women participation in agriculture in Jaffna as well as in Sri Lanka. The overall objective of this study is to identifying factors influencing the family-women participation in agricultural production.

2.Background

Sri Lanka is a developing country, having vast and varied rural sector and primarily agrarian socioeconomic setup. Agriculture sector has been and will remain the mainstay of its economy, as it contributes 12% towards the Gross Domestic Product (GDP). Majority of the population directly or indirectly depends on agriculture. About more than 82% of population living in rural areas, depends directly or indirectly on agriculture. The significance of agriculture thus cannot be ignored because it constitutes the foundation of growth and stability of the entire economy.

Women play a major role in agriculture activities both directly and indirectly, along with their household responsibilities and socio-cultural obligations. Women constitute 50.7% of the population and are considered to be valuable resource potential needed to be in the rural agric sector of Sri Lanka. Agriculture is the backbone of the developing economies and women are the key figure in their vast agrarian socioeconomic setups, however their participation varies from region to region (Consumer Finance Survey of 2003/2004).

In Sri Lanka most of women of agriculture families work along with men on the farm as well. Despite their routine domestic work, women are very actively involved in agriculture production. They perform various task for example rice planting, cleaning, drying grain storage etc. Women are very active in livestock management activities as well. Women in Sri Lanka also significantly involved in post harvest operation in maize and pulse grains (Sayeded,1992).

The role of women is very significant in spite of many social barriers and constraints. They help the farmer in field operation, manage the livestock production, dairy products and participate in poultry agriculture, kitchen

gardening and food preservation. All their work enhances the family income. They produce about two third of total food which is quite rational to involve them actively in all agricultural development programs. The women take active part and work shoulder to shoulder with male in the field of agriculture.

In addition to that , women involved in general health care, milking, butter\ghee making, and preservation of milk and milk products and their marketing. These later duties performed by women are mainly of great importance and contribute a lot to their family income (Ahmad, 2001). Although women constitute more than 50% of the world population, their contribution in production and management activities related to the house hold economy and in country's economy at large had been underestimated and unrecognized. This is because the activities performed by men are visible whereas those by women are invisible. Sociologically speaking the role of women in the cultural context of Sri Lanka as well as in North has always been misconceived. Constraints faced by the women in Sri Lanka are deep rooted in cultural values, normative patterns and customs, most of which are without religious and ethical sanction.

In general, rural women's work patterns are marked by change and continuity as well as flexibility and rigidity (Gurung,1999). Shron (2008) viewed that both women and men play critical roles in agriculture throughout the world. Most of the women employed in developing countries are engaged in agriculture whether as workers in household farms owned or tenanted by their families, or as wage workers. Yet it precisely livelihood in agriculture that has tended to become more volatile and insecure in recent years(Chandrasekhar, 2002).

2.1 Statement of Problem

Women in Jaffna play dominant and important role in agriculture production. Nowadays there are visible changes in women participation in agric production because of the greater opportunities, education and employment. Large number of skilled women labour force employed in various organization and societies and they are aggressively fighting and opposed to restrict them in agricultural production. In agriculture sector the participating women have less education and technical skills and majority of them use low yielding and unimproved planting material and labour intensive ,and traditional farm practices which may adversely affect agricultural production. There is therefore the real concern about the determinants of participation in agriculture production is important one.

2.2 Objective

- To identify factors influencing family women participation in agricultural production
- To identify constraints against women participation in agricultural production

2.3 Hypothesis

- Family women involvement in agriculture significantly affect the agricultural production
- Various socioeconomic factors affect family women involvement in agriculture production.

3.Methodology

This chapter gives the procedure for research study. It explain the selection of study area, selection of respondents, sampling procedure, data collection and analysis sampling procedure this study involved a cross section of 190 randomly selected household of which 185 were used to analyse the family women participation in agricultural production.

3.1 Data collection

Interview schedule (questionnaire) was used as a research instrument to elicit information on family women participation in agriculture activities. Selected respondents were interviewed personally using well structured pre tested questionnaire.. Efforts were made to keep it simple and understandable so as to capture all the necessary information onsocio economic characteristic of respondents. This interview schedule was pre-tested and modified according to the feed back from respondents.

3.2 Data analysis

Probit model was used to determine the family women participation in agriculture production. Family women participation in agriculture was measured as a discrete choice variable (Yes/NO). The following model was used to study the relationship between family women participation in agriculture activities and a few selected but relevant variables with a view to identify factors that would have significant impact on family women participation in agricultural activities

$$Y = \beta_0 + \beta_i X_i + e_i$$

Y=1, if family women participates in agricultural production Y=0, otherwise

β_0 intercept

β_i regression coefficient that explain the probability of participation by family women

e_i error term

X_i Vectors of parameters

X_1 =Age of the women

- X2=household size
- X3=level of education
- X4= Years of experience in farming
- X5=distance from farm households
- X6 =Disposable incomelevel of the women
- X7= extension service
- X8 =perception
- X9= Land tenure rights (Dummy, Yes=1, No=0)
- X10= Member of the cooperative(yes=1, No=0)
- X11= women contribution

4.Result and Discussion

4.1 DISCUSSION OF DESCRIPTIVE STATISTIC

Table 1: Descriptive statistic for the sample of family – women involvement in agriculture

Variables	Observation	Mean	Std.Dev.	Min	Max
Wpart	185	.827027	.3792503	0	1
Wage	185	44.23784	11.70134	24	65
Wedu	185	8.837838	2.353461	4	12
Income	185	10962.16	2619.674	6000	20000
Hsize	185	4.800000	1.570101	2	8
Yexp	185	17.05405	10.27700	0	40
Tenure	185	.4864865	.5011737	0	1
Dfarm	185	500.5405	581.2746	100	5000
Wcredit	185	.6324324	.4834512	0	1
Ext	185	1.583784	1.819208	0	5
Mcoop	185	.3675676	.4834512	0	1
Pcept	185	.2108108	.7898073	-1	1
Cont	185	83783.78	50749.88	10000	200000

Descriptive statistic of women participation in agricultural production as a family-women involvement has been shown in Table 1.

In this survey around 83% of women are involving in agricultural production activities as a family women. The respondent age has big range from 22 years to 65 years in both cases, however 44 years as mean age to the family women. Respondent level of education range from 4 years of schooling to 12 years of schooling, however mean level of education is around 8 years of schooling. While concerning tenure rights to the land , around 48 % of the family-women having permanent tenure rights. Household size of the respondent ranges from 1 to 8, and mean household size is around 4. Mean value of the income to the family women participation is Rs 10962.16.

4.2DISCUSSION OF PROBIT MODEL

Table 2: Probit Estimates of selected explanatory variables on the dependent variables of family-women participation in agriculture

Variables	Coefficient	Df/dx	P> Z
Age	-.0769823**	-.0073774	0.015
Hsize	.1376105	.0131875	0.126
Lnedu	1.985806**	.1903043	0.014
Yexp	.1328515***	.0127315	0.000
Lnfarm	-.2699599	-.0258709	0.130
Lnincome	-.8651598*	-.0829102	0.100
Ext	.4023533***	.0385584	0.007
Pcept	-.107913	-.0103415	0.559
Tenure	-.558323*	-.0554596	0.067
Mcoop	.5932514	.0511613	0.123
Lncont	.4566577*	.0437625	0.085
Wcredit	-.0518188	-.0049096	0.865

Df/dx is for discrete change of dummy variable from 0 to 1

***significant at 1% level, **significant at 5% level, *significant at 10% level

No of observation = 185

Wald chi2 (11)=32.22

Log pseudo likelihood = -49.139634

Prob>chi2= 0.0013

Table 2 summarized that the parameters were obtained by maximization of the log likelihood function. In this model, six iterations were necessary to find the maximum log likelihood function (-49.139634), age, level of education, years of experience, level of income, extension services, tenure rights and level of contribution are significant.

4.1 Age

The variable women's age has strong impact on family women participation in agricultural production and the coefficient shows negative and significant relationship at 5% ,of significance. The marginal effect of the age is clear sign, that if age increased by one year from mean value of 44.23, the probability of family women involvement in agricultural production will decreased by 0.73%.It seems that young women are less likely to participate in agriculture as well as they want to employ in other sectors. Same result was found in studies of Damisa(2007), and in Kimhi (2008), the coefficient of women age has negatively and insignificant influence in women labour participation in agriculture.

4.2 Education

The level of education attainment contributes significantly to women participation in agricultural production as a family-women involvement and the coefficient of family-women involvement shows positive sign and significant at 5% level. This seems to be getting more education giving to knowledge to increasing the family-women participation in agriculture. In other words, highly educated women were likely to make higher contributions to farming decisions than less educated ones. Generally better educated women access and able to utilize the technologies of knowledge in agricultural production. This supports Enete et al (2010), who cited that educated women may be more aware of their rights and responsibilities in the household and may be more assertive about them than uneducated ones.

Marginal effect of education shows that by holding other variables constant 1% increase in level of education, increase the family-women involvement by 19.03%. However Damisa (2007), found that educational level is negative and insignificant. These findings consistent with the coefficient of women labour education of this study.

4.3 Years of experience (yexp)

The variable of Yexp shows positive and significant contributor to the women participation as a family-women involvement at 1% level. Experience most often comes with age, and in traditional societies, the older a woman gets, the more her opinion is respected and sought after, in decision making. Moreover, experienced women farmers may be more versatile with regards to the production systems and may therefore be better able to assess the risks involved in farming than inexperienced ones.

Marginal effect of years of experience shows that by holding other variables constant 1% increase in level of education, increase the family-women involvement by 1.276%. Similar to this findings, studies of Damisa (2007) and Oladejo et al. (2011), their coefficient is positive and insignificant for women participation in agricultural production.

4.4 Tenure rights

The variable treated as dummy variable. Value 1 assigned if tenure rights is own and 0 if the tenure rights is lease. The estimated coefficient of tenure shows that negatively significant at 10% level. The negative sign implies that if the tenure rights changes from lease to own, family-women are less likely to involve in agricultural production.

4.5 Extension services

The variable of extension shows positive and significant contribution to the women participation as a family-women involvement. The coefficient of extension is positive and significant at 1% level in agricultural production as a family-women involvement. Marginal effect of extension shows that by holding other variables constant, if that index is increased by one unit probability of family-women involvement will increase 3.85%.

5.Conclusion

This study presented Analysis of family-women participation in agricultural production in Valikamam area of Jaffna district. The women in the area of study see, agriculture as the major means of livelihood and therefore put high expectation of returns on the occupation. For the aforementioned principle model was developed for the family-women involvement is an indicator of women participation in agricultural production. Then, woman age, educational level, years of experience, income level, extension services tenure rights and level of contribution had significant impact on women participation as a family-women involvement in agricultural production. The empirical estimation of the probit analysis shows a log likelihood of -49.139634 and pseudo R² of 0.4233 for model respectively, this shows that the model has a good fit. Also, this study pointed out that, despite the influence of other socio-economic variables, there is high level of commitment in agricultural

production. The level of their contribution is an indication of their level of commitment in agriculture. The level of contribution to agriculture has significant effect.

REFERENCES

- [1] C Ahmad, M.Asghar and N. A. Khan, "Participation of rural women in agriculture and household activities,". *Journal of agriculture & social sciences vol 2,n^o1,2006*
- [2] M. Damisa, R.Samndi,R. and M.Yohann, " Women Participation in Agricultural Production: A Probit Analysis," *J. Applied Sci.*, vol 7: pp 412-416, 2007
- [3] C.P. Chandrasekhar, and Jyanti Ghosh. "Women in India". A Status Report, *The Hindu Business Line online edition* , September 3, 2002,
- [4] A.A Enete and Amusa," Determinants of women contribution to farming decisions to Cocoa based agro forestry households of Ekiti states, Nigeria", *The journal of field actions* 4, 2010
- [5] A.Kimhi,"Male income, Female Income and Household Income Inequality in Isrel: A Decomposition Analysis", Discussion Paper No. 17.08, Department of Agricultural Economics and Management, The Hebrew University of Jerusalem, 2008
- [6] J. A. Oladejo, S. Olawuyi,. and T. D. Anjorin, "Analysis of Women Participation in Agricultural Production in Egbedore Local Government Area of Osun State," Nigeria, *International journal of agricultural economics and rural development* vol 4 n^o1, 2011
- [7] B.H Shorn,".Rural women and food Security FAO participation in Paneldiscussion on the occasion of international day of rural women hold in New York", 2008

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