

## Empowerment of women farmers' and its' contribution on household poverty reduction: A case of Imbulpe DS division in Sri Lanka

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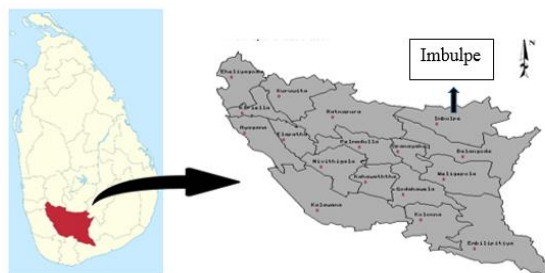
### 1. Introduction

Women empowerment and poverty reduction are inter-connected social phenomena for achieving the sustainable development in most of the developing countries (Weinstein., 2019; Jaka and Shava., 2018). Gender differences affect the agricultural knowledge barrier for the women farmers (Rathnachandra & Malaknthi, 2020; Mojaki & Keregero, 2019; Malkanthi, 2016).

Women empowerment and poverty reduction are naturally depend on the socio-economic aspects of the women farmers (Wei et al., 2021). In most of the developing countries, male counterparts have become highly upgraded in their capabilities in the level of education, accessibility to modern farming technologies as well as agricultural information (FAO, 2018). Since women farmers have more social responsibility to perform in household activities and caring of family members, they have lack of access to social networks and also in poorer status in their monetary facilities than the male farmers (Medagbe et al., 2020; Bahadurghartimagar, 2011). Therefore, women farmers need to be empowered in their capabilities to reduce the gender discrimination in developing countries (Rathnachandra & Malkanthi, 2020; Ibarhokanrhowa, 2016).

When consider the situation in Sri Lanka, about 14% of women represent those with economically active status practicing agricultural activities within the rural sector. (Madurawala, 2018; Annual Labor Force Reports, 2017). In Imbulpe area, a considerable proportion of male counterparts are engaging in industrial sector and service sector as their livelihood. Therefore, women farmers have to perform both domestic activities and also the farming activities simultaneously. Most of the women farmers in this area have lack of access to adequate assets and resources, credit facilities and freedom of decision making within the households. Therefore, women empowerment is a timely important requirement to reduce household poverty of rural women farmers under these circumstances. Thus, this research aimed at identifying the determinants of empowerment of women farmers and assessing the association of determinant of empowerment of women farmers with their contribution in poverty reduction within the study area.

### 2. Materials and Methods



**Figure 1. Map of the Imbulpe DS division**

The study area is situated in Rathnapura district and a considerable share of male counterparts has moved to urban areas for their employments. The majority of women engage in agricultural activities while performing domestic activities.

In this study, from Imbulpe DS division, seven Grama Niladhari (GN) divisions were randomly selected for the study. They were Halpe, Seelogama, Kinchigune, Puwakgahawela, Muttettuwegama, Imbulpe and Karagastalawa. Then, a sample of 238 women farmers were randomly selected. Primary data were gathered from a field survey using a pre-tested, self-administered questionnaire from May to July 2019. Descriptive statistics was used to identify the nature of socio-economic factors and the determinants of empowerment of women farmers were identified using descriptive statistics: age, education, marital status, farm land size, farming experience and monthly income, ability to control their economic resources, freedom of mobility and participation in decision making within the households were considered the determinants of women empowerment. The ability to control their economic resources and participation in decision making within the households were measured by taking various categories based on the identified distribution patterns as husband, wife, both and other, according to the findings of the pilot study. Chi-square analysis was used to assess the association of the determining factors of empowerment of women farmers with their contribution in poverty reduction within the study area.

Women farmers' contribution towards poverty reduction was measured using eight dimensions based on the studies of Moussa et al. (2011) and Khan et al. (2017), with necessary modifications in categories which were denoted by high (3), moderate (2) and low (1) considering as ability to earn considerable monthly income from the marketing of agricultural products, ability to use home garden products in meal preparation, ability to preserve excess home garden products for off season, ability to get home garden medicine for simple health disorders, ability to share excess home garden products among neighbors, ability to do day-to-day household expenses, ability to obtain a own bank saving with a considerable deposited amount and ability to bear the household shocks by getting support from neighbor farm women.

Women empowerment was measured using selected factors: economic resource accessibility, freedom of mobility and participation in decision making within the households and categorized as high (3), moderate (2) and low (1) based on the study of Khan et al. (2017). Economic resources accessibility was studied using eight dimensions: ability to control day to day household expenses, ability to maintain bank savings, ability to purchase necessary fancy items, ability to control valuable instruments and machinery, ability to maintain their home lands and farm lands, ability to perform farm management and budgeting activities, ability to purchase necessary farming inputs and ability to sell, exchange and repurchase land/ livestock/ house. Freedom of mobility was assessed through seven dimensions as; going to market place, friends and relatives houses outside the home village, agrarian service center, the neighboring houses, capital city, other districts and religious places. Participation in decision making within the households was measured using ten dimensions: day-to-day household expenses, agricultural production activities, buying and selection of agricultural inputs, marketing of agricultural products, family health issues, education of children, selecting and using family planning methods, constructing and repairing of houses, celebration of social and religious events and giving loans to others.

### **3. Results and Discussion**

#### **Socio-economic factors of the respondents**

According to the findings, most of the respondents (62.6%) were in between 40 -59 years of age. The majority of the respondents (90.3%) married and 64.3% of them had studied up to secondary education (GCE Ordinary level). The average size of farm land was showed as 0.84

acre and average duration of experience of farming was 15 years. Also, 65.5% of respondents have earned LKR 20,001 – 40,000 as their monthly income.

**Situation of empowerment of women farmers**

According to the findings, husbands have more accessibility or power regarding the maintenance of their home lands and farm lands (56.7%) than the other dimensions. However, women farmers (wives) showed low level of overall accessibility regarding the purchasing ability of necessary farm inputs, ability to performing farm management and budgeting activities, ability to maintain bank savings and ability to control day to day household expenses were showed higher level of accessibility by husbands of the households. Women farmers showed the lowest level of accessibility for ability to manage their home lands and farm lands.

The situation of participation in decision making within the family are as, husbands have more power to take decisions regarding the marketing of agricultural products (56.7%) than the other dimensions. However, women farmers mentioned that they had a low level of overall participation regarding the marketing of agricultural products, constructing and repairing of houses, selecting and using family planning methods, giving loans to others and celebration of social and religious events. Women farmers showed the lowest level of power of taking decisions about the construction and repairing of houses. Furthermore, freedom of mobility of the women farmers was studied using seven dimensions. According to them, most of the women farmers needed permission to move capital city (31.1%), other districts (31.9%) and friends and relative’s houses outside the home village (32.8%). However, women farmers needed the least level of permission when moving into the religious places (5%).

**Women farmers’ contribution in poverty reduction**

Women farmers’ contribution to poverty reduction was investigated with the support of eight dimensions. As per the results, women farmers have a higher potential to enhance their contribution to poverty reduction using the ability to share excess home garden products among neighbors and a lower level of monthly income from marketing of agricultural products facilitate lower opportunity to enhance the women farmers’ contribution to poverty reduction. Based on the calculated weighted average, while 35 women farmers have showed higher level of contribution to poverty reduction, only 71 respondents showed a low level of ability in their contribution in poverty reduction. Moreover, 132 women farmers have gained moderate status in their contribution to poverty reduction.

**Impact of socio-economic factors and women’s contribution in poverty reduction**

Selected socio-economic factors were taken as the independent variables and contribution in poverty reduction was used as the dependent variable of the study. Results of the chi-square analysis are presented in table 01.

**Table 01. Impact of socio-economic factors and women’s contribution to poverty reduction**

Factor	Category	Their contribution in poverty reduction					
		High		Moderate		Low	
		F	%	F	%	F	%
Age	20-39 Years	26	10.9	11	04.6	03	01.3
	40-59 Years	87	36.6	53	22.2	09	03.8
	> 60 Years	08	03.3	22	09.2	19	07.9
	Chi-square = 48.07 Gamma value = 0.451	df = 4		p value = 0.00			
Educational level	No Primary education	1	0.42	2	00.8	5	02.1
	Primary education	5	02.1	26	10.9	37	15.5
	Junior secondary education (O/L)	62	26.1	69	28.9	22	09.2

	Senior secondary education (A/L)	4	01.7	3	01.3	2	00.8
	Chi-square = 50.72			df = 6			p value = 0.00
	Gamma value = 0.64						
Monthly income (LKR)	Less than 20,000	13	05.5	22	09.2	26	10.9
	20,001 – 40,000	88	36.9	62	26.1	6	02.5
	40,001 – 60,000	12	05.0	7	02.9	2	00.8
	Chi-square = 58.65			df = 4			p value = 0.00
	Gamma value = 0.56						
f = frequency	% = percentage						

Age of women farmers and their contribution to poverty reduction showed a moderately significant positive relationship and its findings showed as gamma value is 0.451 and p value is less than 0.05 confidence level. Also, a moderately significant positive relationship was obtained between the level of education of the respondents and their contribution in poverty reduction as Chi square analysis showed gamma value as 0.64 and p value as less than 0.05 confidence level. Findings of the monthly income and their contribution to poverty reduction had a moderately significant positive relationship, as per Gamma value is 0.56 and p value is less than 0.05 in Chi square analysis.

**Factors affecting for poverty reduction of women farmers**

The relationship between economic resource accessibility and participation in decision making within the household with their contribution to poverty reduction was assessed by using Chi-square analysis. Economic resource accessibility and participation in decision making within the household were taken as the independent variables and women’s contribution to poverty reduction was used as the dependent variable of the study (Table 02).

**Table 02. Chi-square analysis of the empowerment of women farmers on their contribution in poverty reduction.**

Factor	Chi-Square value	p value	df	Gamma value
Economic resource accessibility	31.48	0.000	2	0.683
Participation in decision making within the household	93.59	0.000	2	0.589

As per Table 02, economic resource accessibility of women farmers and their contribution in poverty reduction noted as gamma value was 0.68 and p value was less than 0.05 confidence level. Therefore, a moderately significant positive relationship was obtained between the economic resources accessibility of the respondents and their contribution to poverty reduction. Also participation in decision making within the household and women farmers’ contribution in poverty reduction showed that gamma value was 0.59 and p value was 0.00. The results indicate a moderately significant positive relationship between the women farmers’ participation of decision making within the household and their contribution in poverty reduction.

Based on the study of Khan et al. (2017), age of the respondents and participation in decision making of the respondents have shown a positive and weak relationship with the women’s contribution to poverty reduction. Educational level of the respondents obtains a moderately positive relationship with their contribution to poverty reduction. Based on the findings of the

Nadim and Nurlukman (2017), education, monthly income, institutional participation and training program participation of women farmers have caused an increase in the women's contribution to household poverty reduction.

#### 4. Conclusions

As per the findings of the research, women farmers show the lower level of accessibility to maintain their home lands and highest level of accessibility regarding the purchasing of necessary farming inputs. However, women farmers obtain a higher level of participation in the decisions associated with the education of children and the lowest level of power was obtained when taking decisions about constructing and repairing of houses. Most of the respondents need permission to move to the capital city, other districts and friends and relatives' houses outside the home village. Age, education, monthly income, participation in decision making, economic resources accessibility and freedom of mobility act as the determinants of women empowerment. The relationship between the age and its' contribution to poverty reduction shows a moderately significant positive relationship. Also, moderately significant positive relationships were obtained for education, monthly income, economic resources accessibility and participation of decision making within the household with their contribution to poverty reduction. Hence the findings conclude that women empowerment and their contribution to poverty reduction are interconnected and household poverty may be reduced by empowering the women farmers in the rural areas of the country. The findings may be useful for the policy makers, administrators and other workers in development activities to formulate and implement suitable strategies for women's empowerment to minimize the household poverty in the rural areas of Sri Lanka.

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