

THE FACTORS CAUSES FOR POVERTY AMONG FARMERS: SPECIAL REFERENCE WITH AALAIYADIVEMBU D.S DIVISION AMPARA

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Abstract

Poverty is a common disease among farmers all over the world, especially in developing countries around the globe. To identify the main roots of poverty in agriculture this study attempted to investigate the factors that contribute to poverty among farmers in the Aalaiyadivembu D.S division in the Ampara district. In this backdrop, the present study considered the poverty level of farmers as the dependent variable and demographic factors, institutional factors, and other factors are taken as independent variables. A total number of hundred and twenty farming households were considered as respondents for this study and a structured questionnaire was administrated among the representative farming households. Further univariate and multivariate analyses are used to analyse the data and found the results of the study. The finding of this study revealed that demographic factors are the main causes of poverty among the respondents.

Keywords: Poverty, demographical factors, institutional factors, farmers

Introduction

Poverty is a diverse complex phenomenon that is one of the most essential and complicated challenges and barriers to human development for developing countries as well as wealthier economies of the globe. Sri Lanka is a low-income country with a GDP per capita of USD 3,852 (2019) and a population of 21.8 million people. Further, 4.1% of the population lives below the national poverty line in 2016 and 0.3% population employed below \$1.90 purchasing power parity a per day in 2019 (Central Bank, Sri Lanka 2019).

Sri Lanka is predominantly an agricultural country and majority of households in Sri Lanka rest on agriculture for their survival. Agriculture sector contributes about 7.7 per cent of GDP and employs nearly 26 percent of the country's total labour force (Central Bank, Sri Lanka, 2020). The same source indicates, it is the source of livelihood for about 81 percent of the rural population and provides raw materials for agro-based industries. Sri Lanka's major agricultural resource base has bright prospects, not just for the rural sector but for the entire economy. Despite the country's natural wealth, growing poverty in the farming sector remains a serious concern World Bank (2021). Poverty alleviation, enhanced literacy rates, and improved health-care facilities all lead to a considerable increase in people's life expectancy, which can help the country prosper. Paddy production and fishing are the main livelihood activity of the district as a whole also considerable amount of population suffering from poverty. According to Poverty Indicators the poverty rate is 2.1 percent and poverty head count index is 2.6 percentage in Ampara district Department of Census and Statistics (2016). Increases in agricultural productivity and rural community per-capita income, combined with industrialization and urbanization, result in increasing demand for industrial goods Todaro & Smith (2012). The same source indicates that agriculture makes its contribution to economic development in several ways.

Around 70 percent of population are samurdhi beneficiaries in this district also most of them are depending on agriculture sector for their survival. Previous studies are identified most of the poorest households are in agriculture sector. And it is necessary to ending the poverty with generation and promoting shared prosperity in a sustainable manner. Therefore, this study tries to identify the right effective policy measures needed to tackle poverty at district level by studying factors cause for the poverty among the farmers in Aalaiyadivempu DS division.

Objectives of the Study

- To analyse the factors that cause for the poverty level of the farming community in Aalaiyadivembu D.S division.
- To investigate the level of demographical, Financial and the other factors cause for the poverty among the framers in Aalaiyadivembu D.S division.

Literature Review

Poverty is defined as a lack of access to basic essentials that influence one's quality of life, such as food, clothing, housing, and safe drinking water, among other things also include the deprivation of opportunities to learn, to obtain better employment to escape poverty (World Bank, 2018). Chirwa et al (2008) conducted a study in Malawi and found that the age of the farmers, educational attainment, size of cultivable land and cropping pattern were major determinants of rural poverty. Further, farmers headed by older individuals in rural areas, tended to be poorer than those headed by younger ones.

The educational level of farmer who receive at least low school level is more productive than illiterate farmers and education also has an effect on reducing the poverty (Lowder, et al 2016); Adhiana, et al, 2017); Suvedi, et al 2017). Bahta and Haile (2013) identified that poverty is negatively associated with remittance, access of credit from relatives, credit institutions, and opinion to credit, and income from agriculture in Eritrea. Bhattarai et al (2005) revealed that improper agricultural input use results in an increase in farmer poverty and access to microcredit. Infrastructure facilities such as store facilities and irrigation are vital for higher productivity in farming. According to Asmamaw (2004), deteriorated natural resources, limited access to essential services, insufficient infrastructure, a weak local institution, a rain-fed agriculture system, and low savings are the key causes of vulnerability to rural poverty.

Ogwumike and Akinnibosun (2013) investigated the determinants of poverty among farming households in Nigeria using National Bureau of Statistics (NBS) by employing the logit regression to estimate the effect of the socio-economic variables such as age, size of household, income, residents of farmers and number of farms. They found high incidence of poverty among farmers and age, size of household, income, and number of farms are major determinants of poverty. Further, geographic differences of resident of the farming households also the major determinants of poverty in Nigeria. According to Fofack (2002), poverty in Burkina Faso is mostly a rural phenomenon, accounting for 94% of total poverty. Further he concluded that age dependence ratio, household head's education level, household assets, and female literacy were important drivers of rural poverty.

Using a total of one hundred and twenty sample farming households, Olorunsanya et al (2012) investigated the determinants of poverty status of rural farming households in Osun State, South Western Nigeria. They discovered the poverty indices indicating that 35% of the beneficiaries and 55% of the non-beneficiaries were poor using descriptive statistics and the Tobit regression model. The model results also demonstrate that household size, credit amount, and annual farm revenue are all factors that influence the poverty status of rural farming households in the state. Adekoya (2014) used a descriptive statistic, Foster, Greer, and Thornback poverty (FGT) indices, and a Logit regression model to investigate the poverty condition of agricultural households in Ogun State, Nigeria. A

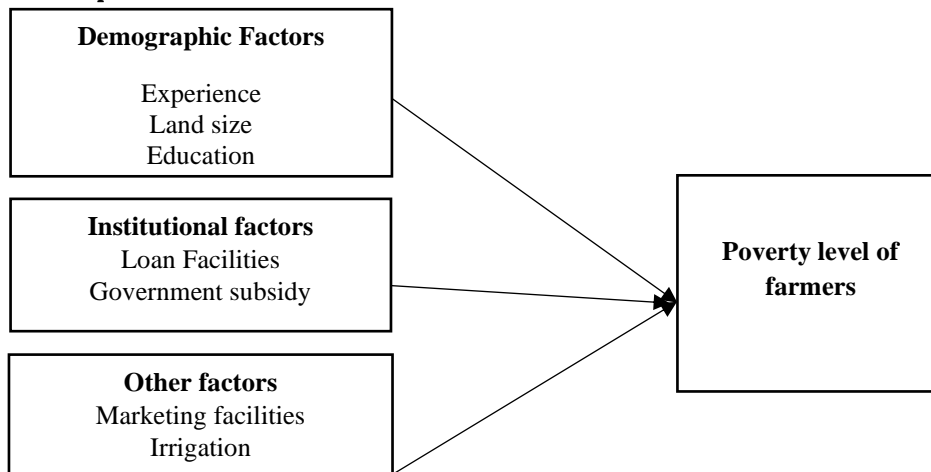
multistage sampling procedure was used to choose 117 farmers and found that large households, non-educated farm household heads, and households without access to credit or other non-farm income were more likely to be poor.

Pha-isah Leekoi and Prapaporn Yangprayong (2017) investigated the factors affecting poverty incidence among people living in rural areas in Thailand and 600 households was selected through multi-stage sampling procedures. Using the probit regression analysis, the findings shows that the gender, marital status, occupation, household size and savings significantly influenced poverty incidence. Yusuf et al (2008) examined poverty status of urban farm 200 farming households. The study was carried out in Ibadan metropolis. Using descriptive statistics, poverty indices and logistics regression analysis they found that age of urban farmers, educational status, years of experience in farming and livestock farming decrease the odd ratio of being poor.

Conceptual Frame Work

The following figure 5.1 conceptualization shows the relationships among the variables and concepts based on the research objectives.

Figure 5.1 Conceptual Frame Work



(Source: Developed for this study purpose)

Research Methodology

This study was carried out in Aalayadivembu D.S division in the Amparai district and the farming households are the respondents. Hundred and twenty farmers were randomly selected among the 1020 farming households. The research data were gathered using primary and secondary sources. The primary data is collected using a structured questionnaire which consists of two parts, such as personal information and research information. Research information was the independent variable which includes demographic factors, institutional factors and other factors, and the poverty level of farmers was considered the dependent variable.

The data were collected through closed-ended statements with a five-point Likert scale of 1-5 from Strongly Disagree to Strongly Agree. The secondary data was obtained from several works of literature, report, scientific journals, published papers, books, research, websites, and other relevant documents related to the research. Also, Validity and reliability analyses, multivariate analyses, and univariate analyses were carried out to meet the objectives of the study.

Data Analysis

The reliability and validity of the measurements used in this study were determined using a reliability test. The degree to which measures are error-free and produce consistent results characterized as reliability (Zikmund, 2003). The following Tables 6.1 and 6.2 explains the reliability analysis of personal and research information of the study.

Table 6.1 Reliability Analysis for Overall Dimensions

Variables	Cronbach's Alpha value
Factors cause for poverty	0.788
Poverty level of farmers	0.720

(Source: Survey Data)

Reliability analysis for overall dimensions

Table 6.2 Reliability Analysis for Overall Dimensions

Variables	Constructs	Cronbach's Alpha value
Demographic factors	Experiences	0.732
	Education	0.886
	Land Size	0.683
Institutional Factors	Loan/credit facilities	0.707
	Government subsidy	0.756
Other factors	Marketing facilities	0.919
	Irrigation	0.701

(Source: Survey Data)

According to the above table the reliability of overall variables causes for poverty at 0.778 and poverty level of farmer's was 0.720 and also dimensions of demographic factors such as experience, education, and land size are 0.732, 0.886, and 0.683 respectively and institutional factors as loan/credit facilities, government subsidy are 0.707, and 0.756 respectively. Finally, other factors as marketing facilities, irrigation are 0.919 and 0.701 respectively. The CAC value was above 0.70 and it considered as good reliable instrument (Geograge and Mallery (2003).

Presentation of Results and Interpretation

The univariate analysis was employed to measure the levels of the factors cause for the poverty among the farmers.

Table 6.3 shows Overall Mean Value for Demographic, Institutional and other Factors cause for the poverty. Demographic factor includes three indicators such as farming experience, education, and land size and the overall mean value of demographic factor 4.03, describes that the status of demographic factors impacts the poverty among the farmers in Aalayiadvembu D.S division.

Credit/loan facilities and government subsidy are the institutional factors with the overall mean value of 3.14 indicates that the moderately impact the poverty level among the farmers in this D.S division.

The other factors such as marketing facilities and irrigation also influence the poverty level of the research area. The overall mean value of other factor (2.42) shows that poverty in low level among the farmers in Aalayiadvembu D.S division. Furthermore, the high level of poverty among the farmers in

Aalayiadvempu D.S division was determined by the overall mean values of all independent variables (4.28).

Table 6.3: Overall Mean Value for Demographic, Institutional and Other Factors

Items	Mean	Std. Deviation
Demographic Factors		
Experience	3.92	0.860
Education	4.92	0.248
Land Size	4.21	0.827
Overall Demographic Factors	4.03	0.426
Institutional Factors		
Credit/Loan facilities	3.14	0.784
Government Subsidy	3.15	1.134
Overall Institutional Factors	3.14	0.801
Other Factors		
Marketing Facilities	1.56	1.049
Irrigation	1.75	.935
Overall Other Factors	2.42	0.793
Overall Poverty	4.28	.351

(Source: Survey Data)

Multiple Linear Regression Analysis for Factors Causes for Poverty among the Farmers

Table 6.4 Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
				R Square Changes	F changes	Sig. F Changes
.828 ^a	.686	.667	.20250	.686	35.011	.000

a. Predictors: (Constant), demographic factors, institutional factors, other factors

(Source: Survey Data)

Adjusted R square statistics (Table 6.4) indicated that the 66.7% of the variation in the poverty level of farmers' is explained by the factors causes for poverty (demographical factors, financial institutional factors, and infrastructure and supportive factors). In other words, the independent variable of causes of poverty in the regression model accountable for 66.7% of the total variation in the poverty level of farmers.

Table 6.5 presents the unstandardized constant statistic 7.109 show that the model would predict if all of the independent variables were zero. Regression result indicate that the all the independent variables are significant at 5% significant level. The coefficient value of -0.081 explains experiences is negatively and significantly impact on poverty level of farmers. When experience is increase in one percent, the farmers' poverty level decreased by 0.081. Experience of individual is vital for increase productivity of all the sector. More experience person is to

Table 6.5: Coefficient of Multiple Linear Regression

Model	Unstandardized coefficient		Standardized coefficient	T value	Sig.
	B	Std. Error	Beta		
Constant	7.109	.410		17.354	.000
Experience	-0.081	.025	-.198	-3.233	.002
Education	-0.382	.081	-.270	-4.711	.000
Land size	-0.055	.025	-.130	-2.216	.029
Credit/loan facilities	0.093	.033	.209	2.811	.006
Government subsidy	-0.081	.019	-.262	-4.311	.000
Marketing facilities	-0.230	.023	-.684	-9.843	.000
Irrigation facilities	-0.044	.021	-.117	-2.108	.037

a. Dependent Variable: Poverty level of farmers

(Source: Survey Data)

Education is vital for boosting the productivity of the human factor and making people more aware of opportunities for earning (Akwa et al 2015) In this wise, farm households of this division with educated heads were found to be less likely to be poor when compared with those that are not educated. A unit increase in the level of education of farm household heads increases the probability of the households to escape poverty or being non-poor by 0.382. Grootaert (1997) findings confirm that there is a link between educational attainment, the income earning potential of the household and poverty. Further he pointed out that there is a minimum level of education necessary to enhance appreciation and adoption of new technologies that can be instrumental in increasing household productivity, and thereby earn more income. The coefficient value of land size is -0.055 indicates negatively and significantly impact on poverty level of framers. One-point increase in the land size, the farmers' poverty level decreased by 0.055 among the framers in Aalaiyadivembu D.S division.

The number of farms owned by a family is another major factor in determining poverty. The farmers who have the own land property, they can reduce the cost of the farming activity. Land is necessary to their cultivation part. According to the analyses land size is reducing the poverty among the farmers. This is a type of physical asset that agricultural households have that will help them improve their living standards. This is supported by a study by Olaniyan (2005), which found that having a house helps to reduce poverty among agricultural households.

Further, Credit assists the farm households in the purchase of farm inputs such as fertilizer, herbicides, improved seeds and investment demand which will ultimately increase their productivity. The coefficient value of credit/loan facility is .093 and positively and significantly impact on poverty level of farmers in this research area which indicates that the credit/loan facilities increase in one-point the farmers' poverty level increased by 0.093.

According to the analyses credit is increasing the poverty among the farmers. In Sri Lanka indirectly the financial institution promotes the loan/credit facilities to the farmers. But the farmers face the difficulty to repay the loan amount due to the higher interest rate. In this situation, they try to borrow another financial institution and trap into debt. So, it increases the poverty among the farmers. The coefficient value of -0.081 indicates that government subsidy is negatively and significantly impact on poverty among the framers. The government subsidy increases in one-point, the farmers' poverty level decreased by 0.081. The provision of government subsidies to farmers determines the extent of poverty among farmers by to reducing the cost of the farming activity. Majority of the country's farmers receive subsidies going to the largest producers of paddy.

The provision of basic infrastructure such as marketing facilities and irrigation facilities in the rural areas are necessary requirement for poverty alleviation. All these will improve the income of farming households and consequently their standard of living and thus reduce poverty. The b value is -0.230 indicates that marketing facility is negatively and significantly impact on poverty level of framers. The marketing facilities increase in one-point, the farmers' poverty level decreased by 0.230. Marketing facilities determine the poverty level among the research area also without marketing facilities farmers can't get the reasonable price for their paddy productions during the harvest season. The coefficient value of irrigation facility (-0.044) indicates that the land size increase in one-point, the farmers' poverty level decreased by 0.044. Irrigation is the most effective contributory factor for the development of the paddy sector. According to this analyze irrigation reduce the poverty in this study area. And credit/loan facility is positively and significantly impact on poverty level of farmers.

Conclusion

Poverty is a complex and multidimensional phenomenon and it should be necessary to address globally. Based on the above analysis farming experience, education, land size, government subsidy, marketing facilities, and irrigation are negatively and significantly impact on poverty level of farmers.

Irrigation facilities are the powerful that can support higher productivity of the framers. Government initiates proper infrastructure facilities such as marketing and government subsidies to enhance their faming income. The establishment of a government educational program is required to improve the qualities of farmers as a means of reducing household poverty levels. Adult education, in particular, will increase household knowledge and skills, allowing them to take advantage of livelihood opportunities both within and beyond the environment to enhance their living standard. Further, credit opportunities for farmland extension will go a long way towards alleviating poverty among farming communities. In addition, a public awareness campaign among rural dwellers on the advantages of limited family size will make a significant contribution to the reduction of poverty rates.

Limitations of the Study

The survey was limited to the selected places in Ampara District which prevents generalization of the findings. Therefore, the same research can be extended to many divisional secretariats Divisions in Sri Lanka and different type of the other cultivation activities. The research area limited to farmers who are cultivating paddy in selected places in Ampara District.

Selected sample respondents have been relatively small if any study consist more than this sample size the findings would be further confirmed. And the study used only the quantitative approach, using qualitative approach such as interviews and observation will be effective to get more explanation regarding the factors cause for the poverty among the farmers.

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