

# **What Matters Poverty? An Explanatory Study Based on Siyambalanduwa Divisional Secretariat (DS) in Monaragala District, Sri Lanka**

**Senior Professor R. Lalitha S. Fernando**

*Chair of the Department of Public Administration*

*Coordinator of the PhD Program*

*Coordinator of the Postgraduate Programs MSc (PPM) and (M PM)*

*University of Sri Jayewardenepura, Sri Lanka*

*rlsf@sjp.ac.lk*

**Ms. H.O.C. Gunasekara**

*Research Assistant*

*Research Centre for Governance and Public Policy*

*Department of Public Administration*

*University of Sri Jayewardenepura, Sri Lanka*

*oshanidi@gmail.com*

## **Abstract**

Poverty is still evident in Sri Lanka with regional disparities. Monaragala is one of the poorest districts for over many years and Siyambalanduwa is the poorest Divisional Secretariat in the district. Even though the situation of poverty is much serious in Siyambalanduwa Divisional Secretariat, very limited research is available on poverty incidents related to the selected area. This study examines significant factors affecting poverty in the selected Divisional Secretariat in Monaragala District of Sri Lanka. The research used quantitative research methods. Data were collected using a structured questionnaire from a sample of 329 families based on a convenient sampling method and analyzed through descriptive and inferential statistics. Based on

the quantitative analysis, this research identified that poverty is caused by lack of government intervention, threat from natural factors and through the debt trap. Based on the findings, policy measures are suggested to reduce the level of poverty in Siyambalanduwa Divisional Secretariat in the Monaragala District of Sri Lanka. Accordingly, poverty could be alleviated by protecting people from the debt trap and proper intervention of the government and mitigating natural threats. Examining the mediating effect of the debt tarp on poverty is the novelty of this study and the relationship has been confirmed with empirical data. The findings of the study could be applicable to other similar contexts.

**Keywords:** Poverty, Significant factors, Siyambalanduwa Divisional Secretariat, Sri Lanka.

## **Introduction**

Poverty has become a serious issue in the whole world over the years. Eradicating extreme levels of poverty and hunger by the end of 2015 was introduced as the first-millennium development goal by United Nations (UN) in 2000. However, the Millennium Development Goals, which expired in 2015, could not uplift developmental progress globally as expected (Flock, 2013). Similar to other countries, poverty is a major issue in Sri Lanka. Although successive governments had put welfare programs as the top priority, poverty and inequality remain as the main problem in Sri Lanka even today (Ranathunga & Gibson, 2015). Thus, eradicating poverty in the country has become a difficult and challenging task. Although, there is a rich literature on poverty focusing on the measurement of poverty and related issues, there are few studies related to causes and effects of poverty in Sri Lanka (Gunawardena, 2004; De Silva, 2008, as cited in Ranathunga &

Gibson, 2015). Prathapage (2006) revealed that many people do not have reliable plans to overcome poverty and they do not even have a clear idea about poverty and expressed poverty as lack of basic needs. As the issue of poverty has been recorded at the highest rate in Siyambalanduwa Divisional Secretariat (DS) in Monaragala District of Sri Lanka, this study examines causes of poverty in Monaragala District which is one of the largest Districts in Sri Lanka. The Monaragala District has eleven Divisional Secretariats and ten Local Government Institutions (District Secretariat, Monaragala Administrative District, 2015). The overall population is 472,000 of the district in 2015, therein, 235,000 are males and 237,000 are females while approximately, 138,823 families live in Monaragala District (District Secretariat, Monaragala Administrative District, 2015). Moneragala District belongs to the Uva Province which is entirely located in the dry zone and depends on subsistence agriculture. The District is ranked in the lowest level according to poverty indicators (Kuruppu, 2004). Even though Sri Lanka has a considerable improvement in poverty reduction, the highest ratio of poverty has been recorded in the Uva Province and also in the Monaragala District (Department of Census and Statistics, 2009).

Siyambalanduwa in Monaragala District is the poorest Divisional Secretariat in the country due to its highest Head Count Index which is 51.8% in 2002 and Household Population Below Poverty (HPBPL) is 23,795 in 2002 (Department of Census and Statistics, 2005). The poorest and isolated Grama Niladhari Divisions in Siyambalanduwa are Wattedgama, Newgale, Pahataarawa, Meeyagala, Ambagahapitiya, Kotiyagala, Mahakalugolla, Kooragammana, Guruhela and Weeragoda, as they do not have basic facilities such as drinking water, education, electricity, transportation, road

facilities, and other infrastructure to have a good life (Fernando & Gunasekara, 2020). This evidence illustrates that even though the overall picture of the poverty situation is better, Monaragala District has been considered as a poor district in Sri Lanka over many years and Siyambalanduwa is the poorest Divisional Secretariat. Even though, the situation is this much serious, there is very limited research available related to poverty incidents in Siyambalanduwa Divisional Secretariat (DS) and responsible authorities had not been adequately concerned about this area. Thus, the main focus of this study is to identify the causes of poverty in Siyambalanduwa (DS) and provide policy implications to eradicate poverty in the area. Accordingly, the research established specific objectives to achieve through the quantitative research methods:

1. To identify significant factors affecting poverty in Siyambalanduwa Divisional Secretariat in Monaragala District of Sri Lanka.
2. To provide policy measures to eradicate poverty in Siyambalanduwa Divisional Secretariat in Monaragala District of Sri Lanka.

## **Literature Review**

### **Definitions of Poverty**

Poverty means inability to meet basic needs such as food, shelter, education, etc. Jabbar & Senanayake (2004) noted that poverty is a situation where not only it is beyond the incapability of affording human basic needs, but it is inaccessible to other services like education, water, sanitization, health and safety, freedom and others which lead to vulnerability. Conway (2004, as cited in Ranathunga & Gibson, 2015) defined that the monetary aspect of poverty is based on family income level and their expenditure, but per capita

income is inadequate to explain poverty as many other essentials are required to have a decent standard of living.

### **Theories and Concepts of Poverty**

According to Brady (2019), “explanations of the causes of poverty can be classified into three broad families of theories; behavioural, structural and political. Behavioural theories concentrate on individual behaviours as driven by incentives and culture. Structural theories emphasize the demographic and labour market context, which causes both behaviour and poverty. Political theories contend that power and institutions cause policy, which causes poverty and moderates the relationship between behaviour and poverty”.

Chambers (1983) explained the issue of poverty in terms of a deprivation trap which consists of five 'clusters' that interact with each other to trap people and these clusters are poverty, powerlessness, physical weakness, isolation, and vulnerability and these features interact with each other. This complex situation could be considered as inherited features of poverty.

Amartya Sen (1980) introduced the Capability Approach to explain poverty. Accordingly, “poverty” as deprivation in the capability to live a good life, and ‘development’ is explained as capability expansion (Wells, 2020). As per Amartya Sen “there are five general freedoms which underpin capabilities, the derogation of which will give rise to deprivation or poverty namely; Political freedom including civil rights, economic facilities which include access to credit, social opportunities which include arrangements for access to health care, education and other social services, transparency in relations between people and between people and governments and

protective security which includes social and economic safety nets such as unemployment benefits and famine and emergency relief” (Suraidi, 2014).

### **Empirical Research on Poverty**

Dowdell (2013) noted that causes of poverty arise due to the lack of basic facilities such as inadequate shelter, clean water, safety and nutrition that leads to ill-health, low level of education attainment which leads to lack of employment opportunities, people’s debts, lack of investment opportunities, and low level of political and economic power. As per Prathapage (2006), the main reasons for the poverty level are not having sustainable livelihood strategies to survive and those people faced many difficulties due to unfavourable climatic conditions that negatively affect on agricultural activities. This situation leads to a low-income level.

Sri Lanka has a high level of human development, as a result of the government's successive investments in education, health, and welfare programs (Tudawe, 2001). The author further notes that the factors contributing to the prevailing poverty levels of the country are due to lower-level economic growth and lack of fair income and resources distribution and limited access to infrastructure facilities while their unstable income sources, seasonal employment and high food expenditure ratio, high expenditure on alcohol, inadequate income support from state poverty alleviation programs and low access to credit facilities. Thus, government intervention in poverty reduction is very important.

Due to traditional livelihood strategies like cultivation, they suffer from lack of water for cultivation, seasonality of income generation, poor money management, and reinvestment (Kuruppu, 2004). That situation may occur due to the slow growth in the agricultural sector, due to unstable market

prices, natural disasters and lack of other facilities (Kuruppu, 2004). As per the author, the non-plantation agriculture sector faces less access to technology, higher prices of fertilizer and pesticides, unstable prices for harvest, and weak economic levels due to far distance from the main commercial city Colombo and limited infrastructure facilities. In order to address poverty, he proposed that establishing fair credit facility schemes for rural poor people, encouraging private and government institutions to provide credit facilities with a convenient procedure, ensuring equitable access to new technologies and markets to assist small and medium enterprises to improve and upgrade their products and successfully face the competition, developing and expanding the existing physical and institutional infrastructure facilities, optimize utilization of resources such as water for the use of consumption and cultivation.

According to Viraj (2011) special features of the Monaragala District to be known as a poor area are physical constraints such as remoteness and poor accessibility which takes a long time and the difficulty to reach the locality from the administrative and economic capital of Colombo and poor infrastructure facilities. Viraj (2011) further noted that high post-harvest losses could be seen due to the lack of technologies, equipment as well as poor market facilities and for the families who do not engage in agricultural activities has very little income avenue. Due to the poor infrastructure facilities, private sector investments are rare in this region (Viraj, 2011). Philip & Rayhan (2004) identified that the significant causes of poverty are shocks such as ill-health, unstable livelihood and vulnerability due to comprised economic, social, cultural, political, and environmental factors.

Deepawansa et al. (2011) noted that the most influential determinants for poverty are household size, education level, total income, number of income

receivers, and the age of household head. Large families are more prone to poverty and education, income, number of income receivers, and the age of household head show a significant negative relationship with poverty level (Deepawansa et al., 2011).

The education level of the household head determines the rural poverty level (Ranathunga & Gibson, 2014). If they are employed in the public sector or non-agricultural sector, the poverty level is decreased (Ranathunga, 2017). “Households where the head is engaged in government or non-agricultural jobs are less likely to be poor in the rural sector while the households where the head is engaged in self-employment or employed in the private sector are more likely to be poor” (Ranathunga & Gibson, 2014). The larger the household size, the likelihood of being poor increases, and the impact are greater in the rural sector (Ranathunga & Gibson, 2014). Size of the household determines the poverty level (De Silva, 2008; Gunawardena, 2004, as cited in Ranathunga & Gibson, 2015). Households, with the number of children are more likely to be poor (World Bank, 2007, as cited in Ranathunga & Gibson, 2015). Those larger households with children are more likely to be poor, and the impact is greater in the estate and rural sectors (Ranathunga, 2017). Poverty level increases when the head of household becomes a female (Ranathunga, 2017). Households being poor can be determined based on the location, where who is located far from the Western Province are more likely to be poor (Ranathunga, 2017). ‘Both rural and estate sector households are more likely to be poor in Sri Lanka relative to the urban sector households over the years’ (Ranathunga & Gibson, 2014). ‘Poverty is strongly associated with attributes of individuals/households educational attainment and employment status’ (World Bank, 2007, as cited in Ranathunga & Gibson, 2015). The spouse being employed locally or

abroad leads to reduce the poverty level (Ranathunga, 2017). If the head of the family is engaged in the non-agriculture sector, this leads to reduce the level of poverty (Ranathunga & Gibson, 2014).

‘Local remittance shows a very strong negative correlation with poverty though they were depicted as having positive correlations in 1990 in the estate sector’ (Ranathunga & Gibson, 2015). ‘Both international and internal receipt of remittances have contributed significantly to poverty reduction in Sri Lanka throughout 1990-2010’ (Ranathunga, 2017). The receipt of remittances and foreign remittance reduces the poverty level (Ranathunga & Gibson, 2014).

‘There is a negative correlation with the higher number of female adults in household and being poor’ (Ranathunga, 2017). ‘Higher female adult ratio and households with higher dependency ratio determine poverty’ (Ranathunga & Gibson, 2014). The dependency ratio significantly affects poverty (Ranathunga, 2017).

Poor regional growth, lack of employability, unavailability of infrastructures such as roads and electricity determine the level of poverty (World Bank, 2007, as cited in Ranathunga & Gibson, 2015). ‘Spatial characteristics at sectorial and the district levels emerge as strong correlates of poverty’ (Ranathunga & Gibson, 2015). Being poor is determined by a range of spatial factors (Ranathunga, 2017). The likelihood of being poor depends on poor regional growth (Ranathunga, 2017). Lack of availability of infrastructures such as roads and electricity are determinants of being poor (Ranathunga, 2017).

Literature in different countries emphasized that level of education of the household head negatively affect to poverty (Datt & Jolliffe, 1999; Mocket et al., 2007, as cited in Ranathunga & Gibson, 2015). Most studies present that

the effects of education are lower in non-metropolitan areas (Mills & Hazarika, 2002; Porterfield, 2001; Lichter et al., 1994; McLaughlin & Perman, 1991, as cited in Mosley & Miller, 2004). On the other hand, Levernier et al. (2000, as cited in Mosley & Miller, 2004) stated education is a buffer against poverty in non-metropolitan areas. However, poverty rates vary with family structure, and female-headed families (Lichter & McLaughlin, 1995; McLaughlin & Sachs, 1988, as cited in Mosley & Miller, 2004).

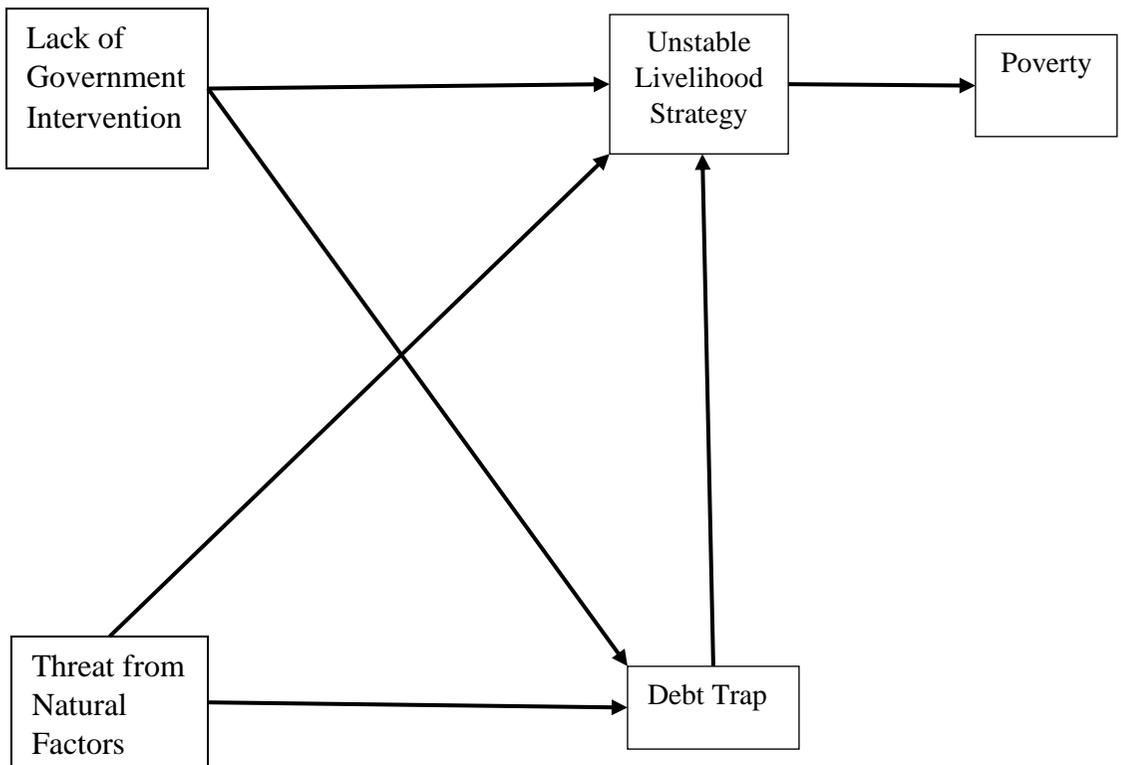
‘Poverty rates are substantially higher among working families in rural, as opposed to urban areas’ (Cotter, 2002; Lichter et al., 1994; Tickaymer, 1992; Lichter & Costanzo 1987, as cited in Mosley & Miller, 2004). Wages of rural workers are lower than urban workers (Lichter & Crowley, 2002; Gibbs, 2001, as cited in Mosley & Miller, 2004). Additionally, ‘rural areas tend to have less diverse employment opportunities; in particular, there is a greater reliance on low-wages (Haynie & Gorman, 1999, as cited in Mosley & Miller, 2004). ‘Many jobs are unstable and lower in wages’ (Haynie & Gorman, 1999; Tickamyner & Duncan, 1990, as cited in Mosley & Miller, 2004). Brown & Hirschl (1995, as cited in Mosley & Miller, 2004) conclude that ‘employed household heads decrease the rural poverty level. McLaughlin & Sachs (1988, as cited in Mosley & Miller, 2004) found that poverty reduction is impacted by female households. Porterfield (2001, as cited in Mosley & Miller, 2004) concludes that rural female heads suffer from lower-paying jobs.

Geographic location is significantly affecting the poverty status of people (Grist et al., 2006). Natural disasters also affect the poverty status of people (Grist et al., 2006). Health issues significantly affect poverty status (Grist et al., 2006; Rashid, 2002, as cited in Grist et al., 2006).

According to an exploratory study based on Siyambalanduwa Divisional Secretariat, Fernando & Gunasekara (2020) noted that poor people are caught in a debt trap due to the lack of government intervention and the threat from natural factors, while the debt trap leads to unstable livelihood strategies which in turn leads to poverty. Further, the authors conclude that the unstable livelihood strategies and the debt trap are directly associated with poverty and the impact of the lack of government intervention and natural factors on poverty is mediated by unstable livelihood strategies and the debt trap.

### Conceptual Framework

*Figure 01: Conceptual Framework explaining factors affecting poverty*



*Source: Literature review*

Based on the literature review a conceptual framework is drawn explaining factors affecting poverty in Siyambalanduwa Divisional Secretariat (DS) in Monaragala District of Sri Lanka. It is depicted in Figure 01.

### **Hypotheses Development**

The dependent variable of this study is poverty and the independent variables are lack of government intervention and natural factors and the mediating variables are livelihood strategies and debt trap. Based on the literature review the following hypotheses were derived;

H1: The lack of government intervention and natural factors are directly associated with the debt trap and unstable livelihood strategies.

This relationship postulated in the 1<sup>st</sup> hypothesis is supported by Fernando & Gunasekara, (2020) and also Prathapage (2006) evidenced that the main reasons for the poverty level are the lack of sustainable livelihood strategies and those people faced many difficulties due to unfavourable climatic conditions that negatively affect agricultural activities. According to the World Bank (2007), poor regional growth, lack of employability, unavailability of infrastructures such as roads and electricity determine the level of poverty (as cited in Ranathunga & Gibson, 2015). Ranathunga (2017) also found that the lack of availability of infrastructures is a determinant of being poor. And natural disasters also affect the poverty status of people (Grist et al., 2006). Thereby, the 1<sup>st</sup> hypothesis in this study was formulated.

H2: Unstable livelihood strategies and the dept trap are directly associated with poverty.

Fernando & Gunasekara, (2020) concluded that the unstable livelihood strategies and the dept trap are directly associated with poverty. Tudawe (2001) also identified several factors including limited access to

infrastructure facilities, lower level economic growth and lack of fair income and resources distribution while their unstable income sources, seasonal employment and high food expenditure ratio, high expenditure on alcohol, inadequate income support from state poverty alleviation programs and low access to credit facilities contributed to the prevailing poverty levels of the country. Thereby, the 2<sup>nd</sup> hypothesis was formulated.

H3: The impact of the lack of government intervention and natural factors on poverty is mediated by the unstable livelihood strategies and the debt trap.

The relationship among the variables indicated in the 3<sup>rd</sup> hypothesis is supported by Fernando & Gunasekara, (2020). Thereby, the 3<sup>rd</sup> hypothesis was formulated.

## **Methodology**

The study used quantitative research methods. Siyambalanduwa DS in Monaragala District in Uva Province is the study area. The population of the research is the total number of families which is 2968 living in the selected ten poorest Grama Niladhari Divisions in Siyambalanduwa Division in the Monaragala District. Based on the convenient sampling method 329 families were selected as the sample of the study from the poorest ten Grama Niladhari Divisions in the Siyambalanduwa Divisional Secretaria which is 11% out of the total population of the study. Data were collected using structured and close-ended questionnaires and analyzed descriptively and inferentially. The limitation of the research is that the study is based on a specific extremely poor Divisional Secretariat (DS) of the country which is Siyambalanduwa Divisional Secretariat (DS). Therefore, the research has limited generalizability to the whole context of the country.

## **Analysis and Discussion**

### **Analysis of Demographic Variables**

Out of 329 families, about 93% of the heads of the families are males. Among the family members, 72% were around age 15 to 64 years and 11% of them had not attended a school, whereas 22% of them had completed Primary Education, 21% of them had completed Junior Secondary Education, 28% of them had completed Senior Secondary Level Education, 11% of them had passed the General Certificates of Education (Ordinary Level), only 5% of them had passed General Certificates of Education (Advanced Level) and about 0.8% have completed their Bachelor's Degree, but none of the family members has education above the Bachelor's Degree level. The main income source of the majority of families is agriculture. About 91% of the households cultivate corn and 73% of them engage in paddy cultivation while 25% of them cultivate mixed crops. There are only 18% of the families who have permanent government jobs and 37% are labourers. The majority of the families earn a very low-level income. About 39% of households earn Rs. 10,000 to Rs. 20,000 and 32% of them earn less than Rs. 10,000 as an average monthly income. Only 2% of the families earn above Rs. 70,000 as an average monthly income. Only 36% have their shelter and 20% have sanitary facilities, 23.5% have their cultivation lands and 66% have their transportation facilities.

### **Descriptive Statistics of Research Variables**

Poverty is determined by four major variables namely, (1) Lack of Government Intervention; (2) Threat from Natural Factors; (3) Debt Trap; (4) Unstable Livelihood Strategy. There are sub-variables derived from the main three variables except the variable, Unstable Livelihood Strategy. Lack

of government intervention consists of nine sub-variables namely, Samurdhi program, educational facilities, health facilities, infrastructure facilities, service of Grama Niladhari (Officers), service of Development Officers, service of Samurdhi Niladhari (Officers), service of other Government Officers and services of Politicians. Threat from Natural Factors consists of six sub-variables namely, floods, droughts, wild animals, bad weather condition, unfertile soil and ground, and inconvenient location. Debt Trap consists of two sub-variables namely, financial instability and creditors power. The mean values in lack of government intervention were 2.6, 3, 3.3, 2.1, 3.6, 3.3, 3.2, 3.1 and 1.6 for Samurdhi program (poverty reduction program), education, health facilities, infrastructure facilities, Grama Niladhari (Officer), Development Officers, Samurdhi Officer, other Government Officers and Politicians respectively. For the sub-variables of the natural disasters, the mean values were respectively 4.4, 2.2, 2.5, 2.7, 3.5 and 2.2 for floods, droughts, animal threats, bad weather conditions, condition of soil and ground and inconvenience location respectively. The mean values of the sub variable of debt trap were 2.5 and 2.6 for financial instability and creditors' power respectively. The mean value of poverty was 3.6.

### **Reliability of the Measures**

The reliability coefficients of all variables were higher than 0.6 except 'unstable livelihood strategy' (Cronbach's coefficient alpha value was 0.103). Therefore, the unstable livelihood strategy was excluded from further analysis of the study.

### **The Validity of the Measures**

The study was done based on a well-grounded literature review that ensures the face validity of the study. Content validity of the study was entrusted

based on the literature review including several dimensions of each variable. Construct validity was ensured through factor analysis. Accordingly, the factors and the items were accepted for further analysis with a higher factor load (greater than 0.05) and other items that have a lower factor load were removed. It is indicated in table 01.

*Table 01: Results of factor analysis*

Variables	Items	Average Variance Extracted Value (AVE)	Total Variance Explained Value (TVE)
<b>Lack of Government Intervention</b>			
	Samurdhi Programme has a		70.115
	Impact on income level	.866	
	Impact on consumption level	.888	
	Impact on savings	.875	
	Impact on life insurance	.828	
	Impact on loan facilities	.793	
	Impact on the interest rate of loans	.841	
	Impact on new livelihood strategies	.854	
	Impact on infrastructure facilities	.744	
<b>Educational Facilities</b>			
	Education from grade 1 to grade 13	.743	
	School buildings with required facilities	.881	
	School classrooms with required facilities	.841	
	School playgrounds for sports facilities	.790	
	School teachers provide great service	.601	

Variables	Items	Average Variance Extracted Value (AVE)	Total Variance Explained Value (TVE)
Health Facilities			55.669
	Doctors provide great service	.500	
	Hospitals have a necessary number of wards	.878	
	Hospitals have a necessary number of beds for patients	.882	
	Hospitals carry out necessary tests for patients	.608	
	Hospitals' service is at a satisfactory level.	.784	
Infrastructure Facilities			56.127
	Proper roads system	.835	
	Public transportation service	.758	
	Telecommunication facilities	.642	
Grama Niladhari (Officers)			95.732
	Provide satisfactory service for people	.977	
	Consider the issues and difficulties of people	.985	
	Provide proper solutions for the issues and difficulties of people	.973	
Development Officers			95.190
	Provide satisfactory service for people	.975	
	Consider the issues and difficulties of	.976	

Variables	Items	Average Variance Extracted Value (AVE)	Total Variance Explained Value (TVE)
	people		
	Provide proper solutions for the issues and difficulties of people	.975	
	Samurdhi Niladhari (Officers)		90.929
	Provide satisfactory service for people	.963	
	Consider the issues and difficulties of people	.934	
	Provide proper solutions for the issues and difficulties of people	.963	
	Other Government Officers		88.433
	Provide satisfactory service for people	.959	
	Consider the issues and difficulties of people	.954	
	Provide proper solutions for the issues and difficulties of people	.907	
	Politicians		92.690
	Provide satisfactory service for people	.941	
	Consider the issues and difficulties of people	.981	
	Provide proper solutions for the issues and difficulties of people	.966	
	Threat from Natural Factors		
	Flood		88.053

Variables	Items	Average Variance Extracted Value (AVE)	Total Variance Explained Value (TVE)
	Flood is a threat	.920	
	It is a threat to livelihood strategies	.969	
	It is a threat to properties	.965	
	It is a threat to the lives of the family members	.899	
Draughts			59.226
	Draught is a threat	.746	
	It is a threat to livelihood strategies	.822	
	It is a threat to properties	.782	
	It is a threat to the lives of the family members	.725	
Animals Threat			62.669
	Wild animals are a threat	.858	
	It is a threat to livelihood strategies	.833	
	It is a threat to properties	.672	
Weather Condition			82.840
	Condition of weather is convenient	.918	
	Convenient weather condition to health	.922	
	Supportive of livelihood strategies	.911	
	Influence to improve peoples' income level	.890	
Soil and Ground			52.630
	Is fertile	.896	

Variables	Items	Average Variance Extracted Value (AVE)	Total Variance Explained Value (TVE)
	It is a health-conscious	.517	
	It is beneficial to the livelihood strategies	.874	
	It provides purified water	.520	
Location			75.103
	Is easy to access the town	.871	
	Helps to success livelihood strategy	.896	
	Increase the income level	.875	
Debt Trap			
Financial Instability of People			82.612
	Financially unstable for investing in livelihood strategies	.909	
	Get credits/loans for investing in livelihood strategies	.909	
Creditors Power			51.110
	Always get loans from personal creditors (informal financing sources)	.562	
	Informal creditors decide the purchasing price of the harvest from the farmers	.649	
	Remaining profit (after paying loans) is not sufficient for the survival	.640	
	Remaining profit (after paying loans) is	.868	

Variables	Items	Average Variance Extracted Value (AVE)	Total Variance Explained Value (TVE)
	not sufficient for saving for future		
	Remaining profit (after paying loans) is	.810	
	not sufficient for investing in livelihood		
	strategies		
Poverty			54.383
	Difficult to fulfil the main three meals	.690	
	per day		
	Do not have any future plans	.762	
	Do not have freedom to take decisions	.779	
	as an independent citizen		
	Do not satisfy and not happy with the	.715	
	current lifestyle.		

*Source: Survey Data*

According to Hair et al. (2011) average variance extracted value of 0.50 and higher indicates a sufficient degree of convergent validity. Factor loading values of all the items were higher than 0.5. of the main variables. Thus, convergent validity was ensured.

### **Discriminant Validity**

To ensure the internal constancy of measures, Composite Reliability (CR) and AVE were computed. Composite Reliability (CR) is a measure of internal consistency in scale items (Netemeyer et al., 2003). To ensure CR for the construct the value should be greater than 0.6 and AVE should be

greater than 0.5 (Fornell & Larker, 1981). As Table 02 indicates, these criteria were met and the internal consistency of these measures was ensured.

*Table 02: Measure of internal consistency*

	LGI	TNF	DT	POVERTY
Average Variance	0.750	0.706	0.601	0.544
Extracted (AVE)				
Composite	0.991	0.981	0.911	0.826
Reliability (CR)				

*Source: Survey Data*

LGI= Lack of Government Intervention, TNF= Threat from Natural Factors  
 DT= Debt Trap

As per Hair et al. (2014) AVE estimates for any two factors should be greater than the square of the correlation between the two factors to provide evidence of discriminant validity.

*Table 03: Comparison of AVE and Squared Multiple Correlation (SMC)*

	LGI	TNF	DT	POVERTY
LGI	<b>0.750</b>			
TNF	0.176	<b>0.706</b>		
DT	0.084	0.241	<b>0.601</b>	
POVERTY	0.050	0.011	0.042	<b>0.544</b>

*Source: Survey Data*

Table 03 illustrated AVE and Square Correlation Estimates of each construct. As the Table indicates all Square Correlation estimates are lower than the AVE, that ensures the Discriminant Validity of the construct.

### **Correlation Analysis**

The Pearson product-moment correlation matrix shows statistically significant correlations in the expected direction between poverty and the other three independent research variables which are lack of government intervention, threat from natural factors and debt trap of the model as shown in Table 04. These variables were used in the regression analysis to test the hypotheses.

*Table 04: Pearson product-moment correlation matrix*

Correlations		Lack of Government intervention	Threat from Natural Factors	Debt trap	Poverty
Lack of Government intervention	Pearson Correlation	1			
	Sig. (2-tailed)	-			
	N	329			
Threat from Natural factors	Pearson Correlation	.420**	1		
	Sig. (2-tailed)	.000	-		
	N	329	329		
Debt trap	Pearson Correlation	.289**	.491**	1	
	Sig. (2-tailed)	.000	.000	-	
	N	329	329	329	
Poverty	Pearson Correlation	.224**	.103	.206**	1
	Sig. (2-tailed)	.000	.063	.000	-
	N	329	329	329	329

*Source: Survey Data*

\*\* Correlation is significant at the 0.01 level (2 tailed)

### **Regression Analysis**

*Table 05: Regression test results*

Predictor	Unstandardized Regression Coefficients		T-Value	Significance
	B	Std.Error		
Dependent Variable: Poverty				
Independent variables: Lack of Government Intervention, Threat from Natural factors, Debt Trap				
Lack of Government Intervention	0.253	0.260	3.41	0.001
Threat from Natural factors	-0.107	0.074	-1.107	0.269
Debt Trap	0.150	0.097	2.975	0.003
Constant	2.778	0.050	10.7	0.000
R	0.275 <sup>a</sup>			
R <sup>2</sup>	0.076			
Adjusted R Square	0.067			
F	8.861			
Dependent Variable: Debt Trap				
Lack of Government Intervention	0.444	0.081	5.46	0.000
Constant	1.352	0.239	5.66	0.000
R	0.289 <sup>a</sup>			
R <sup>2</sup>	0.084			

*Table 05: Regression test results (Continue.)*

Predictor	Unstandardized Regression Coefficients		T-Value	Significance
	B	Std.Error		
Adjusted R Square	0.081			
F	29.89			
Dependent Variable: Debt Trap				
Threat from Natural factors	0.892	0.088	10.180	0.000
Constant	-0.002	0.262	-0.007	0.994
R	0.491a			
R <sup>2</sup>	0.241			
Adjusted R Square	0.238			
F	103.6			

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001

*Source: Survey Data*

According to the test results, only two variables namely, lack of government intervention and debt trap is statistically significant with poverty. Threat from natural factors was not statistically significant with the issue of poverty. When debt trap is considered as the dependent variable assuming poverty is constant, then, both lack of government intervention and threat from natural factors are statistically significant with debt trap. Therefore, lack of government intervention and threat from natural factors are significantly affecting the debt trap, while debt trap and lack of government intervention are directly and significantly affecting poverty, but threat from natural factors is only significant with debt trap, but not directly associated with

poverty. In order to display direct and indirect relationship path analysis is portrayed.

### Path Analysis

Path analysis was used to illustrate the mediating effect of the conceptual framework.

*Table 06: A path analysis*

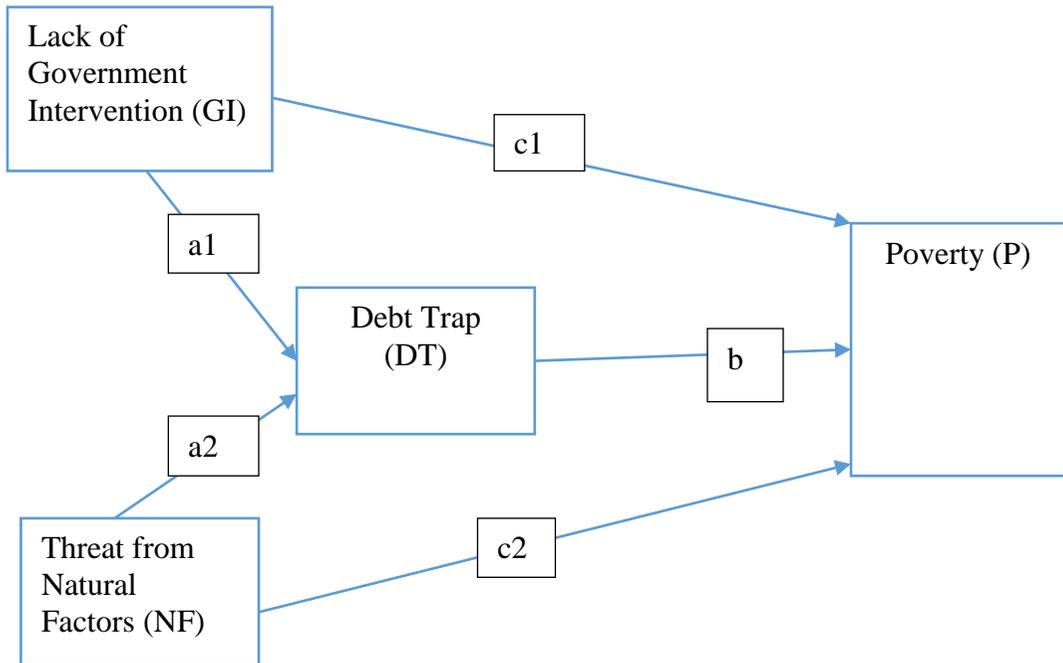
It was identified that a direct relationship is not significant since the p-value

Variiances	Estimate	Std.Err	z-value	P (> z )
<b>Debt Trap</b>				
Lack of Government	0.155	0.081	1.920	0.055
<b>Intervention (a1)</b>				
Threat from Natural Factors	0.815	0.096	8.510	0.000
<b>(a2)</b>				
<b>Poverty</b>				
Debt Trap (b)	0.150	0.050	2.993	0.003
Lack of Government	0.253	0.074	3.432	0.001
<b>Intervention (c1)</b>				
Threat from Natural Factors	-0.107	0.096	-1.114	0.265
<b>(c2)</b>				
Debt Trap	0.358	0.028	12.826	0.000
Poverty	0.295	0.023	12.826	0.000
<b>Defined Parameters</b>				
Indirect	0.145	0.051	2.870	0.004
Direct	0.146	0.100	1.469	0.142
Total	0.292	0.088	3.306	0.001

*Source: Survey data*

was (0.142). Hence, there is evidence that the indirect and total relationship (both indirect and direct) of the conceptual framework exists as the indirect relationship (p-value = 0.004) and total relationship (p-value = 0.001) is significant.

*Figure 02: A path analysis*



*Source: Survey Data*

$$\text{Model 1: } DT = a1 * GI + a2 * NF$$

$$\text{Model 2: } P = b * DT + c1 * GI + c2 * NF$$

$$\text{Indirect} = a1 * b + a2 * b$$

$$\text{Direct} = c1 + c2$$

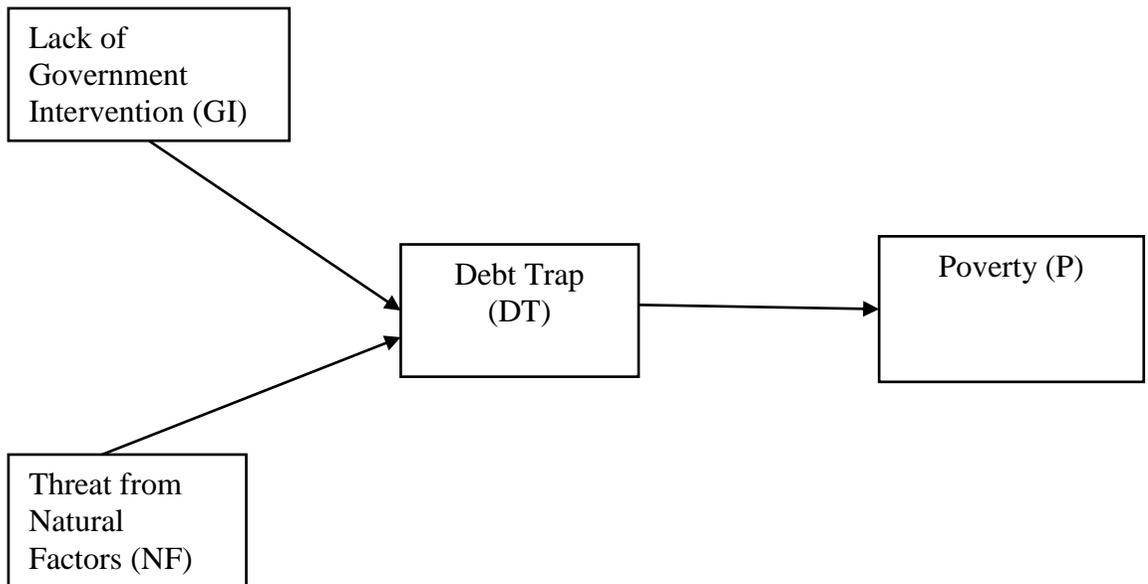
According to the path analysis shown in Figure 02, the debt trap is a mediating factor that leads to poverty through the lack of government intervention and the threat from natural factors. Thus, it could be concluded

that poverty is caused by the lack of government intervention and the threat from natural factors through the mediation effect of the debt trap.

## Discussion

According to the analysis, the Unstable Livelihood Strategy was excluded due to poor reliability and all other factors were tested through the multiple regression analysis. R software was used to examine whether the mediating effect of the debt trap is significant. It was found that there is no direct relationship with the independent and the dependent variables but there is an indirect relationship. The study concluded that poverty is affected by the lack of government intervention and the threat from natural factors through the mediating factor of the debt trap as shown in Figure 03.

*Figure 03: Revised Model explaining factors affecting poverty in Siyambalanduwa DS*



*Source: Survey data*

Several studies revealed the same findings in a fragmented way, but not in a comprehensive way as in this study. Government intervention was identified as a factor of poverty by Chambers (1983), Social Welfare by Ranathunga & Gibson (2014), Ranathunga & Gibson (2015), Ranathunga (2017) and the availability of infrastructure such as roads, electricity by World Bank (2007) as cited in Ranathunga & Gibson (2015), Ranathunga (2017). Natural factors such as disasters were identified by Chambers (1983), location of the people by Gunawardena (2004); De Silva (2008) as cited in Ranathunga & Gibson (2015), Ranathunga & Gibson (2015), Ranathunga (2017), Ranathunga & Gibson (2014), Adams & Duncan (1992); Summers et al. (1993) as cited in Mosley & Miller (2004), Lobao & Schulman (1991); Miller & Weber (2003) as cited in Mosley & Miller (2004), Fisher & Weber (2002) as cited in Mosley & Miller (2004), Grist et al. (2006). Poverty is affected by the lack of government intervention and the threat from the natural factors through the debt trap was identified by Fernando & Gunasekara (2020).

### **Conclusion and Policy Recommendations**

Based on the findings, several recommendations are proposed to reduce poverty in the selected area such as, improving government intervention for enhancing peoples' living standards, through social welfare programs like Samurdhi (Poverty reduction) programs, educational facilities, health facilities, and infrastructure facilities. Social welfare programs such as the Samurdhi program should be properly designed to increase peoples' income level, consumption level, savings, life assurance, protection from the sudden personal financial crisis, enhancing and stabilizing peoples' living standards by introducing new livelihood strategies while providing infrastructure facilities to the area. Educational facilities of the people should be enhanced

by providing education from grade 1 to grade 13, facilities for school buildings and classrooms, playgrounds with sports facilities and with talented teachers. People should be provided with proper and satisfactory health facilities with enough specialized doctors and treatments and by increasing the number of hospital wards and beds for patients. The infrastructure of the area should be developed with proper road systems, public transportation facilities, and telecommunication facilities. The government authoritative parties such as Grama Niladhari (Officers), Development Officers, Samurdhi Niladhari (Officers), other Government Officers, and Politicians' service should be enhanced to alleviate poverty by providing satisfactory service by a way of considering issues and difficulties of people and providing proper solutions for their issues and difficulties. Debt Trap was identified as another critical factor that causes poverty. Hence, people should be financially stable to invest in their livelihood strategies instead of getting credits, especially from informal credit sources. People should be more aware of formal financing sources like government-approved banks and use them when necessary instead of getting caught to informal creditors. Through that people can become powerful than informal creditors to decide their harvest price. That could lead to the retention of more profit with people and that will be useful for saving for the future and improving their living standards. In that way, the debt trap could be solved. Therefore, poverty could be alleviated by protecting people from the debt trap by the proper intervention of the government for mitigating natural threats and improving people's living standards.

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