
Impact of Internal Migration on Rural Development in Sri Lanka

S. D. P. P. Kannangara^{a*}, H. M. T. S. Herath^b

^{a*}, ^b*Department of Commerce and Financial Management, University of Kelaniya, Sri Lanka*

A B S T R A C T

Internal migration and rural development are the most debated areas of a development process, which have not been adequately addressed for years in many developing countries, particularly in Sri Lanka. Therefore, the purpose of this study is to analyse the relationship between internal migration and rural development. This study used the quantitative approach and secondary data, spanning annually from 1996 to 2019. The Autoregressive Distributed Lag (ARDL) model was used to test the hypothesized relationship between the constructs using EViews 11 student version. According to the ARDL results, the study reports a significant positive relationship between internal migration and rural development. Further, it revealed that despite the substantial improvement of rural development that happened over 1996 to 2018, internal migration has also increased by 16 per cent. It is expected that the findings of this study help various level policymakers to address the issues relating to rural development and internal migration from a novel and different perspective. This study also gives insights into problems relating to rural development, internal migration, and urbanization. Future studies may investigate urbanization problems in Sri Lanka which were mainly created by the overflow of internal migration. These problems should be considered by the authorities for the continued sustainable development in Sri Lanka as a whole.

Keywords: internal migration, rural development, Sri Lanka

1. Introduction

After the political independence in 1948, Sri Lanka continued as a rural and peasant agriculture-based country, where agriculture is 30% of the GDP. But the unemployment level exceeds 15%, and per capita income was USD 120 in 1948 that was lower compared to the

*Corresponding author:sdpanchali@gmail.com

10th ICME at University of Ruhuna, Sri Lanka
02nd September 2021
ISBN: 978-624-5553-03-7

developed world but second to Japan in the Asian region (Central Bank of Sri Lanka, 1990). The agriculture sector was no longer profitable and did not attract foreign and indigenous interest bent upon the plantation and agriculture sector, which heavily used labour, has given exceptionally low yields (Central Bank of Sri Lanka, 1990). With the limited awareness and resources, the farmer was condemned to a poor standard of living. Therefore, after 1960, the economy started its structural change by adding the industrial sector to the peasant agricultural sector with 30% of the workforce allocated to the plantation sector and 50% gained from tea exports out of total exports, and export contribution to GDP was 15% (Central Bank of Sri Lanka, 1990). The industrial sector had a low influence on the agriculture sector. Thus, this problem has remained the same creating employment opportunities for a rapidly growing workforce. However, these two sectors were not adequate, and simultaneously the educated workforce started growing increasingly (Central Bank of Sri Lanka, 1990).

To overcome these problems, this dual economy changed into an open economy in 1977 initiating liberalization economic policies (Central Bank of Sri Lanka, 1990). Afterward, this internal migration had become a massive trend among young people, and they had gradually transferred to the industrial sector to overcome their unemployability, and low living standards (Ranathunga, 2011). As Deshingkar and Grimm, 2005 emphasized, migration practices have become a most promising and significant livelihood development strategy for many poor groups in the developing world. Unlike other theories on labour migration, the new economics of labour migration (NELM) theory has highlighted that the decision regarding out-migration has been taken by individual decision-making units of households which sends out migrants as a remedy to overcome the problems of diversifying income earnings, credits, and risk constraints (Taylor, 1999; Murphy, 2006).

Considering the internal migration impact on rural development, prior studies supported a negative impact that caused several problems such as increasing future urbanization, increasing urban-rural gap, increasing population density, decreasing the size of landholdings, increasing landlessness and unemployment, and stagnation in the development of agriculture and alternative production.

The existing literature has revealed that from 1981 to 2012 migration patterns have changed significantly. Accordingly, one in every seven persons (2.7 million or 13.4% of the total population) was an inter-provincial migrant while one in every five persons (4 million or 20% of the total population) was an inter-district migrant (De Silva, 2014; Perera, 2015; Perera, & Ukwatta, 2005; Sunethra, & Perera, 2018). Even studies have been conducted in the Sri Lankan context addressing the issue of internal migration and rural development (De Silva, 2014; Perera, 2015; Perera, & Ukwatta, 2005; Sunethra, & Perera, 2018) reveals that the internal migration pattern and its impact on rural development particularly from 1996 to 2019 have not been examined. Thus, in addressing this gap, the main objective of this study is to investigate the impact of internal migration on the rural development of Sri Lanka with special reference to the period from 1996 – 2019 and to answer the question of whether there is an impact of internal migration on rural development.

The significance of this study is mainly for policymakers to act and make decisions in this area. To increase the rural development of the country, it is important to know whether this ongoing overflow of internal migration problem will be a threat to rural development or not. Therefore, based on this study, policymakers can implement the policies regarding

internal migration, and impose rules and regulations similar to other developed countries in the world.

In this paper, section 2 reviews the theoretical background with empirical studies. Section 3 presents the data with the empirical strategy used in the analysis, and section 4 presents the finding. Finally, concludes the paper in section 5.

2. Literature review and hypothesis development

Rural development refers to all the aspects of the development of the rural areas with the betterment of the lifestyle of the people in those areas (Edirisinghe, 2019). As Todaro (2015) defines, rural development has many such aspects and it means improving the levels of living, including employment, education, health, nutrition, housing, and a variety of social services; decreasing inequality in the distribution of rural incomes and enhancing rural-urban balances in income and economic opportunities. Further, it includes the increasing capacity of the rural sector to sustain and accelerate the pace of these improvements. Rural development may be well-defined as the procedure of enlightening the excellence of life and economic good fortune of people living in rural areas, often relatively isolated and sparsely populated areas. Diejemaoh (1973) sharpened rural development as a method of mounting the level of per capita income in the rural zones end to end with the development in the worth of the lifespan of the rural commonalities. It mentions a procedure of evolving and applying natural and human resources, technologies, infrastructural activities, institutions, organizations, and government rules and programs to inspire and rapidly up monetary growth in rural zones, to offer jobs, and to advance the excellence of rural lifespan. The key pointers of rural development are an increase in food ingestion, better clothing, renewed houses, building up of assets, banking facilities, the number of schools and proportion of children presence school in a rural community, professional training progressions, quality of drinking water, percentage of children covered under immunizations, nutritional status of women and children (Amit, 2009; Kelkar, 2010; Thorat, 2007; Sinha, 2012). Rendering to Lal (2019), enlargement in rural zones could bring infrastructure, technology, health, education, and economy.

Internal migration is moving from one area to another within the same country, while in developing countries, it is a movement from rural to urban areas (Bartram, 2014). In many countries, internal migration was quite common whereas in developing countries it consisted mainly of movement from rural to urban areas (Bartram et al., 2014). In the past, internal migration research has consisted of the theory of neo-classical (Lewis, 1954; Todaro, 1969; Harris & Todaro, 1970). Then it was expanded slowly until the New Economics of Labour Migration (NELM) theory.

Rural-urban migration outcome is a loss of human resources for rural areas. This employment loss has zero opportunity cost of employment when the labour is in excess supply (Lewis, 1954). Therefore, rural community families started to release their excess labour supply without making distress to the existing productivity in their main agricultural activities and as a means of diversifying the family income sources. Nevertheless, this is not the case in the circumstances where there are employment lacks in rural zones. Additionally, if those who migrate receipts capital (human or financial) with them, the capital stock in rural zones reduces, dropping the productivity of other contributions, for instance, employment (Berry & Soligo, 1969; Rivera-Batiz, 1982).

The study conducted in 1997 regarding Spontaneous rural migration in southern Sri Lanka – the migrants and the determinants of out-migration by Vandsemb (1997) concluded that the socio-economic changes in the home villages that impelled this out-migration could be summarized by factors such as increasing population density, decreasing the size of landholdings, increasing landlessness and unemployment, and stagnation in the development of agriculture and alternative production activities. However, when it came to the Sri Lankan context, the author suggested that it would be misleading to suggest that migration represents a straightforward response to these circumstances in the rural setting because migration was not the only choice available to the people in Sri Lanka. In addition, people might respond by adapting to their changing circumstances or might organize politically to revolt against the existing regressive relations.

Many studies have been conducted to identify the relationship between internal migration and rural development and related other dimensions like agricultural productivity, labour productivity, income inequality in different country contexts (Lal, 2019; Chen, & Z.L, 2013; Qaisrani et al., 2018; Lagakos, 2020; Adda et al., 2014; Taylor, & Martin, 2001; Zhaopeng & Zhao, 2012; Shi, 2018; Silva, 2010; Karunaratne, 2000). And several studies have supported the close negative relationship between internal migration and rural development. All in all, with the support of the existing literature, this study supports the following hypothesis.

H1: There is a relationship between internal migration and rural development.

3. Methodology

3.1. Sample and data

The primary objective of the study was to investigate the relationship between internal migration, and the rural development of Sri Lanka. Thus, the unit of analysis was at the country level. The methodological approach of the study was quantitative, and it used secondary data to test the hypothesis. Data was gathered from a sample spanning annually from 1996 to 2019. The study used two main secondary data sources for data collection purposes. Data for the dependent variable was gathered from the World Bank database. The data for the independent variable was collected from the Annual Central Bank Socio-economic reports.

3.2. Measurement of variables

The conceptual framework of the study comprises two variables as rural development representing the dependent variable, and internal migration, as the dependent variable. Internal migration is the independent variable of the study and it was calculated using mid-year in-migration as per thousand people, mid-year out-migration as per thousand people, and mid-year net- migration as per thousand people. Therefore, it consisted of 72 sample observations. Internal migration values were extracted from the Central Bank report; therefore, it was not necessary to calculate it using any formula.

The dependent variable of the study – rural development – was measured using the multi-dimensional poverty index (MPI). Three dimensions of education, health, and standard of living were used to calculate the multi-dimensional poverty index as suggested by (Lal, 2018), and under these three dimensions, there were six indicators. Education was measured using annual school attendance and consisted of 24 sample observations over the period from 1996 – 2019. The annual infant death rate was used to measure the health dimension that

includes 24 sample observations from 1996 – 2019. In measuring living standards, four indicators of access to electricity, basic sanitation service, open defecation, and basic drinking water facility in the rural area were considered. Thus, 96 sample observations were taken into the study from the period 1996 to 2019. The multidimensional poverty index was calculated using the following formula.

$$\text{MPI} = H * A$$

Here, *H* denotes Multi-dimensional Poverty Head Count Ratio (Incidence), and *A* denotes the Intensity of Poverty.

The Multidimensional Poverty Index (MPI) was a product of incidence (*H*) and intensity (*A*). According to Alkire and Foster (2007), the multidimensional poverty index was driven by multiplying the multidimensional poverty headcount ratio (*H*) by the intensity of poverty (*A*). Since, the current study focused on rural development, to measure the multidimensional poverty headcount ratio was driven by the rural population but not the total population because the total population included the urban and estate population as well except the rural population

The following formula was used to calculate the *H* and *A*.

Multi-dimensional Poverty Head Count Ratio (*H*)

$$H = \frac{\text{Number of multidimensional poor population}}{\text{total rural population}}$$

Intensity of Poverty (*A*)

$$A = \frac{\text{Sum of deprivation scores of the multidimensional poor population}}{\text{total number of the multidimensional poor population}}$$

Multidimensional Poverty Headcount Ratio (*H*) was calculated by dividing the Number of Multidimensional Poor populations by the total rural population. Multidimensional Poverty Headcount Ratio is commonly used to measure poverty incidence in Sri Lanka. The proportion of the poor people to the total population was defined as Headcount Index (HCI), and it was generally represented as a percentage (Department of Census and Statistics, 2007). In calculating the number of multidimensional poor populations as suggested by Alkire and Foster (2007), each person was assigned a deprivation score according to his or her household's deprivations in each of the five component indicators. The maximum score is 100 percent, with each of the dimensions as Education, Health, and Living Standard is equally weighted (thus, the maximum score in each dimension was 33.3 (100/3) percent). The health and education dimensions have one indicator; therefore, each component was worth 33.3/1 (100/3) percent. The standard of living dimension has four indicators; therefore, each component was worth 33.3/4 (100/12) percent. To identify the multidimensional poor, the deprivation scores for each indicator were summed to obtain the household deprivation score, a cut-off of 33.3 percent that was equivalent to 1/3 of the weighted indicators were used to distinguish between the poor and non-poor. The people whose deprivation score is greater than or equal to 20 percent and less than 50 percent are considered as the vulnerable group concerning the multidimensional deprivation scores. The people having a deprivation score equal to or more than 50 percent are considered the severely poor people in the country (Department of Census and Statistics, 2019).

Next, the intensity of poverty (A) which is the average proportion of indicators in which poor people are deprived was described as the intensity of their poverty (A). It was the average deprivation score a multidimensional poor person experiences (Department of Census and Statistics, 2019). The intensity of poverty (A) was taken from the sum of deprivation scores of the multidimensional poor population divided by the total number of the multidimensional poor populations.

3.3. Data analysis

This study used both descriptive and inferential statistics for data analysis purposes. The main analytical technique used to test the said hypothesis was an autoregressive distributed lag (ARDL) model, a time series technique. ARDL model was an ordinary least square (OLS) based model, which was applicable for both non-stationary time series as well as for times series with mixed order of integration (Bhattab, 2018). This model took enough lags to capture the data generating process in a general-to-specific modeling framework (Bhattab, 2018). Therefore, the study could be measured using the ARDL analysis, which was one of the regression models for the long run. Further, that could be used to access the relationship between the above-mentioned variables in the long run. The data were analysed using the software EViews 10 student version, which originally stood for modern econometric, statistics, and forecasting package.

4. Results and discussion

To summarize the data set, descriptive data could be used because it explained the basic characteristics of the quantitative data (Hair et al., 2003). Descriptive statistics characteristics were effective in explaining the internal migration on rural development in the Sri Lankan context. Frequency distribution analysis showed by using the graphical and numeric way of presenting the results. It resulted in In-migration, Out-migration, and Rural Development. Considering all the variables, they showed a trend that fluctuates over the period showing slight ups and downs. But it showed an overall increment over 24 years, which meant the development from 1996 to 2019.

Further, the descriptive statistics resulted for each variable of in-migration and out-migration showed quite similar values as both showed a similar trend for these 24 years such as 1,986 and 1,996, respectively. The average value for rural development was 48% which is a considerable level of increment. Skewness assessed the extent to which a variable's distribution was symmetrical. If the distribution of responses for a variable stretched toward the right or left tail of the distribution, then the distribution was referred to as skewed (Hair, 2017). However, it showed closer to zero in every variable, which showed a normal distribution where there was no higher difference in mean and median in all the variables. Kurtosis was a measure of whether the distribution was also peaked (a very narrow distribution with most of the responses in the center) (Hair, 2017). However, this showed the peaked distribution since the kurtosis values for all the variables that showed greater than one which was also peaked and called leptokurtic. Jarque-Bera test showed whether the variables were normally distributed or not. As a result, all the probabilities showed more than 0.05 and showed a normal distribution after all. Therefore, when considering all these variables' normality, it showed a normal distribution where the Null hypotheses could be accepted for all the variables which said the series was normally distributed.

Considering the Augmented Dickey-Fuller Test (ADF), all the variables such as IM, OM, RD showed the stationary in 1st difference. Therefore, to measure the stationary of the

variables, this study has considered two equations in the unit-root test which using constant as well as constant with the trend. Those were as follows,

$$\text{Constant, no trend: } \Delta y_t = \alpha + \gamma y_{t-1} + \sum_{s=1}^m a_s \Delta y_{t-s} + v_t$$

$$\text{Constant and trend: } \Delta y_t = \alpha + \gamma y_{t-1} + \lambda_t + \sum_{s=1}^m a_s \Delta y_{t-s} + v_t$$

The unit root test measured whether the data set was stationary or not. In this test, the null hypothesis was the variable has a unit root. That meant the variable has not stationary. However, RD, IM, OM have the probability of 0.0001, 0.037, 0.0178 respectively, which were below 0.05, and that represented stationary.

The Phillips-Perron model is

$$y_t = c + \delta t + a y_{t-1} + e(t)$$

Where $e(t)$ is the innovation process. The test assesses the null hypothesis under the model variant appropriate for series with different growth characteristics ($c = 0$ or $\delta = 0$) (perron, 1987). The above table showed RD, IM, OM have the probability of 0.000, 0.0381, 0.0182 respectively which were below 0.05, and that represented the RD, IM, OM have a stationary at the first difference where no trend and the only constant exist.

The KPSS test is based on linear regression. It breaks up a series into three parts: a deterministic trend (βt), a random walk (r_t), and a stationary error (ε_t), with the regression equation:

$$x_t = r_t + \beta t + \varepsilon_t.$$

If the data is stationary, it will have a fixed element for an intercept, or the series will be stationary around a fixed level (Wang, 2006). The test uses OLS to find the equation, which differs slightly depending on whether you want to test for level stationarity or trend stationarity (Kocenda, 2017). A simplified version, without the time trend component, is used to test level stationarity. However, RD, IM, OM, have the probability of 0.1246, 0.1713, 0.1727 respectively which were above 0.05, and that represented the IM, OM, RD have a stationary at the level where trend and constant were there.

Breusch-Godfrey Serial Correlation LM Test was performed, and it showed the probability of F statistic as 0.5268 and the probability of Chi-square as 0.3656, and both were more than 0.05 and which accepted the null hypothesis and there was no serial correlation up to 2 lags (Godfrey, 1988).

Considering the probability of F-statistic, the probability of Chi-square showed 0.6638 and 0.582 respectively which were more than 0.05, and accepting the Null hypothesis where the study consisted of homoscedasticity. Therefore, it confirmed the non-violation of the heteroscedasticity test.

To examine the short and long-run impact of internal migration on rural development, the Autoregressive Distributed Lag model was employed with a maximum of one lag for the dependent variable of the study named rural development, and regressors of the study used zero lags in the model. The advantage of this model was that the researcher can run the model even without lags for some variables while other variables with the lags (Shresthaa, 2018).

Table 1: Short Term Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
RD (-1)	0.597844	0.235441	2.539253	0.0219
IM	0.08223	0.008892	0.924763	0.0188
OM	0.08202	0.009738	0.842297	0.012
C	17.2875	9.433798	1.832507	0.0856
R-squared	0.96425	Mean dependent var		49.07783
Adjusted R-squared	0.950843	S.D. dependent var		5.048991
S.E. of regression	1.119427	Akaike info criterion		3.309301
Sum squared resid	20.04987	Schwarz criterion		3.654886
Log-likelihood	-31.057	Hannan-Quinn criteria.		3.396215
F-statistic	71.92478	Durbin-Watson stat		2.250595
Prob(F-statistic)	0			

Source: Authors' work based on the primary data

The above table showed how the probability of the short-run, and if the p-value is less than or equal the 0.05, then hypotheses could be accepted in the short-run. Here, the p-value (F-statistic) showed zero (0) which was the whole model was incredibly significant. In addition, the significance of the variables in probability was showed as 0.0219, 0.0188, 0.012, for rural development, in-migration, out-migration, respectively. In the current study, according to the above table, the Adjusted R-square represented that 95.08% of the dependent variable has been described by the individual variables. As the value was 95.08%, the model was well fitted.

To examine the long-run impact of internal migration on rural development, the Bound Testing approach was employed. Firstly, Pesaran (2001) advocated the use of the ARDL model for the estimation of level relationships because the model suggests that if the order of the ARDL has been identified, the relationship may be estimated by the OLS method. Secondly, the bounds test for cointegration permits a mixture of I (1) and I (0) variables as regressors. In other words, the order of integration of appropriate variables may not necessarily be the same hence the ARDL technique has the advantage of not requiring specific identification of the order of the underlying data. Thirdly, the technique is fit for small or finite sample sizes (Pesaran, 2001).

$$Y_{rd} = \beta_0 + \beta_1 IM_t + \beta_2 OM_t + \epsilon t$$

The above equation showed the dependent variable of the study as rural development while representing the in-migration, out-migration as the independent variables.

Table 2: Long Term Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.032871	2.436941	0.83419	0.4165
RD (-1) *	0.4276	0.051705	0.53377	0.0408
D(IM)**	0.207356	0.009354	0.786396	0.0431
D(OM)**	0.20719	0.010158	0.70756	0.0494

** Variable interpreted as $Z = Z(-1) + D(Z)$.

Levels Equation

Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(IM)	0.466525	0.650188	0.40992	0.0373
D(OM)	0.46044	0.66903	-0.38928	0.0422
C	73.65851	53.08944	1.387442	0.1843

F-Bounds Test

Test Statistic	Value	Signif.	I (0)	I (1)
Asymptotic: n=1000				
F-statistic	4.406423	10%	2.08	3
K	5	5%	2.39	3.38
		2.50%	2.7	3.73
		1%	3.06	4.15

Source: Authors' work based on the primary data

The above table 4.28 showed how the probability of the long-run and if the p -value is less than or equal the 0.05, then hypotheses could be accepted in the long run. Here, the significance of the variables was showed in probability as 0.0408, 0.0431, 0.0494 for rural development, in-migration, out-migration, respectively at the level. The F-statistic of the study was 4.4406423 which was higher than the I (0) value which was 2.08.

$$EC = RD - (0.4665 * D(IM) + 0.4604 * D(OM) + 73.6585)$$

At the outset, it is vital to note that, even though the current study presents a positive relationship between internal migration and rural development, which is contrary to the general understanding of the world that is the lost-labour effect dominates across all levels of household wealth, resulting in a negative net impact of rural-urban migration on agricultural productivity. Simply, if the rural-urban migration is high, the agriculture productivity will be reduced, resulting in low household wealth. This situation will ultimately show a reduction in rural development (Shi, 2018). However, the reason for such kind of positive relationship is that Sri Lanka provides free education, free health facilities. As politicians provide different facilities to rural areas, even though there is a migration, it did not show a significant influence to reduce the rural development (Kelegama, 2006). Moreover, the study conducted in North-west China revealed that in multi-cropping small farming systems, at least in the short run, the loss resulting from losing family labour on lower-return grain crop production is likely to be offset by the gain from investing in capital-intensive and profitable cash crop production. In general, it explained that loss of labour from internal migration caused the

reduction of the household wealth which led to a reduction in rural development (Li, 2013). In addition, as the current study shows, a Ghanaian study has also supported a positive relationship between internal migration and household welfare, but this was in a different point of view which explained that the positive relationship is only true for households with at least one migrant in urban areas (Ackah, 2012). However, a Sri Lankan study conducted in 2010 considering the past 10 years of data, showed a different perspective considering the internal migration with agriculture productivity that wage dissimilarity and age structure have a momentous impact on internal migration from rural to urban. Further, an equal distribution of power and resources and reduction in economic discrepancy among provinces could be used as tools in controlling the internal labour migration. Finally, it was said that improvements in nature and the quality of the product would be substantially important for successfully addressing the internal migration issue (Silva, 2010).

5. Conclusion

In summary, this study attempted to investigate the impact of internal migration on the rural development of Sri Lanka particularly during the period from 1996 to 2019. The study found that internal migration and rural development are positively related to the Sri Lankan context.

However, the current study shows that even though internal migration increases in the country, it does not significantly impact the reduction of rural development. It may be particularly due to the present welfare system and the rural development policies in the country. However, previous research has proved that there is a significant negative impact in different other country contexts.

Even though the internal migration does not negatively impact rural development, in return, it may be a problem that leads to creating several other problems in urban areas as a result of over-expanding of the population density. Accordingly, the problems encountered are traffic jams, high population density, inadequate infrastructure, lack of affordable housing, flooding, pollution, slum creation, crime, congestion, and poverty. Further considering the problem of high population density caused due to the heavy rate of migration from rural areas resulted in overcrowding, traffic congestion, pollution, housing shortages (slum and squatter housing), high rents, poor urban living conditions, low infrastructure services, poverty, unemployment, and poor sanitation which have become pervasive and indeed high crime rate. However, all these influences create a high population density in developing countries (Okorie, 2015). Policies should be implemented in this regard and should consider this matter seriously before it becomes a threat to the lifestyle in urban areas. Therefore, internal migration should be highly considered when it comes to urbanization.

6. Future research directions

Future research may be carried out to look at how internal migration impacts urbanization. Further, this study considered only a few dimensions such as access to electricity, open defecation, access to basic sanitation, access to basic drinking water, infant deaths, and school attendance to calculate rural development. However, many other factors that affect rural development and internal migration such as remittance, rural household wealth and should be considered in future studies. Those should be considered in future research to determine the internal migration impact on rural development as well. In addition, another main question that arises from this study is, internal migration does not impact badly on rural development but still Sri Lankan people move to urban areas. This question should be

answered in future research as well. Therefore, the researcher concludes that these two variables should be considered in future studies of rural development to build a long-term attraction. And on the other hand, to increase the rural development and to implement the lifestyle in rural areas compared to urban areas.

References

- Ackah, C. A. (2012). Internal migration in Ghana: determinants and welfare impacts. *International Journal of Social Economics*, Vol. 39 No. 10, pp. 764-784.
- Ackah, C. a. (2012). Internal migration in Ghana: determinants and welfare impacts. *International Journal of Social Economics*, Vol. 39 No. 10, pp. 764-784.
- Agarwal, S. (1989). Strategies for rural development in a new perspective. Vol. 35 No. 6, pp. 272-275.
- Amit, B. (2009). Performance appraisal of urban cooperative banks: a case study. *IUP Journal of Accounting and Audit Practices*, Vol. 8 No. 1, pp. 31-44.
- Central Bank of Sri Lanka. (2008). *Economic and Social Statistics of Sri Lanka 2008*.
- Central Bank of Sri Lanka. (1990). *40th Anniversary Commemorative Volume*.
- Central Bank of Sri Lanka. (2019). *Economic and Social Statistics of Sri Lanka*.
- Central Bank of Sri Lanka. (2014). *Economic and Social Statistics of Sri Lanka 2014*
- Chen. (2010). Volume Information. *Wiley for the Royal Statistical Society, 1885*.
- Chen, X. (2009). Review of China's agricultural and rural development: policy changes and current issues. *China Agricultural Economic Review*, Vol. 1 No. 2, pp. 121-135.
- Chen, X. (2010). Issues of China's rural development and policies. *China Agricultural Economic Review*, Vol.2 No.3, pp.223-239.
- Chen, X. (2019). Review of China's agricultural and rural development: policy changes and current issues. *China Agricultural Economic Review*, Vol. 1 No. 2, pp. 121-135.
- Chen, Z. L. (2013). Beyond Lewis: rural-to-urban migration with endogenous policy change. *China Agricultural Economic Review*, Vol. 5 No. 2, pp. 213-230.
- Crops, J. (. (1972). Rural sociology and rural development". *Rural Sociology*, Vol. 37 No. 4, pp. 515-523.
- Dent, V. (2007). "Local economic development in Uganda and the connection to rural community libraries and literacy. *New Library World*, Vol. 108 No. 5/6, pp. 203-21.
- Department of Census and Statistics. (2006/7). *Household Income and Expenditure Survey*.
- Department of Census and Statistics. (2019). *Global Multidimensional Poverty for Sri Lanka*. Ministry of Economic Reforms and Public Distribution. Retrieved from <http://www.statistics.gov.lk/>.
- Dent, V. (2007). Local economic development in Uganda and the connection to rural community libraries and literacy. *New Library World*, Vol. 108 No. 5/6, pp. 203-217.
- Dent, V. (2007). Local economic development in Uganda and the connection to rural community libraries and literacy. *New Library World*, Vol. 108 No. 5/6, pp. 203-217.
- Diejemaoh, V. (1973). *Rural Development in Nigeria: The Role of Physical Policy*, Ibadan University Press.
- Don, K. H. (2000). *Income Distribution in Rural Sri Lanka, 1963-1997*.
- Frank Qu, Z. a. (2014). Evolution of the Chinese rural-urban migrant labor market from 2002 to 2007. *China Agricultural Economic Review*, Vol. 6 No. 2, pp. 316-334.
- Frank Qu, Z. a. (2014). Evolution of the Chinese rural-urban migrant labor market from 2002 to 2007. *China Agricultural Economic Review*, Vol. 6 No. 2, pp. 316-334.
- Godfrey, L. G. (1988). *Misspecification tests in econometrics*. Cambridge: Cambridge University Press, Cambridge.
- Vandsemb, B. (1997). Spontaneous rural migration in southern Sri Lanka – the migrants and the determinants of out-migration. *Norsk Geografisk Tidsskrift - Norwegian Journal Of Geography*, 51(3), 127-143. DOI: 10.1080/00291959708545891
- Indika Edirisinghe(Research officer, H. K. (2019, January 29). Rural Development. *Rural Development*.
- Joe Hair Jr. G., T. M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

- Kocenda, E. &. (2017). *Elements of Time Series Econometrics: An Applied Approach*. Karolinum Press.
- Lee, E. (1996). A Theory of Migration Demography. 47-57.
- Lele, U. (1975). The Design of Rural Development. *John Hopkins University Press, London*.
- Li, L. W. (2013). Migration, remittances, and agricultural productivity in small farming systems in Northwest China. *China Agricultural Economic Review*, Vol. 5 No. 1, pp. 5-23.
- Li, Y. W. (2010). Future urban-rural relationship in China: comparison in a global context. *China Agricultural Economic Review*, Vol. 2 No. 4, pp. 396-411.
- M. Hashem Pesaran, Y. S. (2001). Bounds testing approaches to the analysis of level relationships. *Applied Economics*.
- Mishra, R. a. (1979). *Rural Development, Sterling Publication*.
- Moore, D. S. (2013). *The basic practice of statistics (6th ed.)*. New York: W. H. Freeman and Company.
- Perera, E. L. (2014). Internal migration patterns and issues in Sri Lanka. *Emerging Population Issues and Challenges*.
- Perera, E. L. (2018). Internal migration patterns in post-war Sri Lanka: challenges and policy implications.
- perron, P. (1987). Time Series Regression with a Unit Root. *Econometrica*. Vol. 55, pp. 277-301.
- Ploeg, R. v. (2015). The Distinctiveness of Rural Development Practices in North West Europe" In Constructing a New Framework for Rural Development. 209-238.
- Ranathunga, S. P. (2011). Impact of rural to urban labour migration and the remittances on sending household welfare: a Sri Lankan case study. *MPAR paper, MPRA_paper_35943.pdf*.
- R.Bhattach, M. B. (2018). Selecting appropriate methodological framework for time series data analysis. *The Journal of Finance and Data Science*, Pages 71-89.
- Robert Blair, J. D. (2008). State rural development policy: the role of the community development block grant program. *Journal of Public Budgeting, Accounting & Financial Management*, Vol. 20 Issue: 1, pp.119-143.
- Sathananthan, S. (2007). Rural Development Policy in Sri Lanka, 1935 to 1989. . Pages 433-454.
- Schumpeter, J. (1934). The Theory of Economic Development. *Sage and Development, Oxford University Press, Thousand Oaks, CA and Oxford*, pp. 460-484.
- Shi, X. (2018). Heterogeneous effects of rural-urban migration on agricultural productivity: Evidence from China. *China Agricultural Economic Review*, Vol. 10 No. 3, pp. 482-497.
- Silva, G. (2015). Impact of Internal Migration and Other Significant Factors on Improving Labor Productivity of Agricultural Sector, .
- Vandsemb, B. H. (1997). Spontaneous rural migration in southern Sri Lanka – the migrants and the determinants of out–migration . 127-143.
- van Broekhuizen, R. S. (2015). The Distinctiveness of Rural Development Practices in North West Europe", Constructing a New Framework for Rural Development (Research in Rural Sociology and Development. *Emerald Group Publishing Limited*, pp. 209-238.
- Wang, W. (2006). *Stochasticity, Nonlinearity and Forecasting of Streamflow Processes*
- William, T. a. (2006). Research Methods Knowledge Base.
- Wiley for the Royal Statistical Society. (1885). General Index. *Journal of the Statistical Society of London*, 1838-1886 (Vol. 1, No. 1 - Vol. 49, No. 4).
- world bank. (1975, February). Rural Development. *Sector Policy Paper*.
- world bank. (2003). A Renewed Strategy for Rural Development. *Reaching the Rural Poor*.
- world bank. (2019, December 18). people move. *Internal Migration in India Grows, But Inter-State Movements Remain Low*.
- X., C. (2009). Review of China's agricultural and rural development: policy changes and current issues. *China Agricultural Economic Review*, Vol. 1 No. 2, pp. 121-135.