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The determinants of remittance inflows and its usage in the rural communities: Special reference to rural-to-urban labor migration in Sri Lanka

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Abstract

Although there is a significant impact of rural-to-urban temporary labour migration on poverty reduction in Sri Lanka, in particular in the rural sector through income diversification strategies, there is dearth of attempt to quantify these impacts. Hence this research addresses regarding the determinants of decision to remit and how the remittances are being used within their places of origin. The author has conducted a questionnaire based sample survey for the data collection in 2011 in Sri Lanka. The survey included 377 rural-to-urban migrant workers from 20 urban factories located in Gampaha District. Data analysis has been done using Tobit and Probit regression models. The results confirm that the decision to remit depends not on the amount of wages or experience but how they use the remittance in their household needs. Higher the numbers of children who are schooling receive more regular remittances for daily expenses as migrants tend to remit more on the purpose the education of their family members. Although most of the studies on migration and remittances confirm that it is for consumptive purposes, results of this survey confirm that rural-to-urban migration and remittances are both for consumptive and investment purposes.

Keywords: Probit Regression; Remittances; Rural-Urban Labour Migration; Sri Lanka; Tobit Regression

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1. Introduction

Rural-to-urban labour migration and remittance play a significant role in rural communities by adding diversification to their sources income in many developing countries. One of the main features of the economic modernization is moving labour from rural villages to cities for different purposes. Although there are ample researches on this topic, there is no clear consensus among researchers on the determinants of remittance inflows and its usage in the rural communities. Although international labour migration has gained more attention than rural-to-urban labour migration in the recent studies on migration and development (Clemens, 2011), migration practices and remittances have been considered as significant livelihood development strategies for many poor groups in developing countries across the world (Deshingkar and Grimm, 2005). Moreover, in earlier decades, research on rural-to-urban migration in developing countries mainly focused on urban economies and thus paid less attention to its effects on rural communities (Oberai and Singh, 1980).

In contrast, the impact of rural-to-urban migration through remittance on the sending communities has gained considerable attention in the recent decades (De Hass, 2006; Taylor and Martin, 2001). The migration process as a whole, either international or internal, contributes for releasing significant labour market pressures which are due to the regional disparities in many nations like Sri Lanka. Thus, migration researches and policies have aimed on the impact of both internal and international migration over the last fifty years (DeWind and Holdaway, 2008). Within this research arena, the determinants remittance and its usage in rural communities have been the main focus.

According the literature internal migration is more important than international migration (Deshingkar and Grimm, 2005; DeWind and Holdaway, 2008). Further, these studies indicated that internal migration and remittances have significantly contributed for the improvement of the living standard of the developing nations. However, Sri Lankan migration studies have paid less attention on the determinants of remittance inflows and its usage through rural-to-urban temporary labour migration on the migrant-sending /rural communities.

1.1. The role of remittance within rural communities

The economic outcomes of remittances can be discussed as focusing mainly on consumption, investment, poverty and inequality. Expenditure is the primary indicator of household welfare. Remittances are taken as part of household income; they can also be directed towards household investment. Then, investment can be identified as the household's future capacity for expenditure. Most studies on internal and international migration and remittances have concluded that remittances improve consumption rather than investment (Zosa and Orbeta Jr, 2009).

Taylor and Filipinski (2011) have argued that the direct impacts of worker remittances on poverty and rural welfare show discrepancies among and within economies, depending on the income distribution of the migrant-sending communities. Stark, Taylor, and Yitzhaki (1986) and McKenzie and Rapport (2007) noted that as migrant networks expand, worker remittances reduce income disparities. Nevertheless, Stark et al. (1986)

found evidence that even when access to networks is prevalent and remittances minimize income disparities, international migration does not benefit the poorest households.

According to the economic theory on migration remittances contribute significantly to increasing the household income and thus, households are more likely to increase their expenditure on normal goods. Based on Philippines household survey data, Tabuga (2007) indicated mixed evidence of the impact of remittances. He further showed that a considerable proportion of international remittances was spent on conspicuous consumption; however, education and housing expenditure also increased. According to this study households allocate relatively smaller amounts on tobacco and alcohol from the remittances received. Ratha, Mohapatra, Scheja (2011), based on studies conducted in Africa, Latin America, South Asia and some other regions, emphasise that remittances significantly contribute to reduce the depth and severity of poverty while stimulating economic activities indirectly.

The effect of remittances is not limited to total consumption expenditure; it also influences the distribution of different items of expenditure. Consequently, it is imperative to study the impact of migration and remittances on both the total consumption expenditure and the expenditure patterns of households.

Migration produces indirect effects within migrant-sending households as these households adjust their production and consumption behaviour in light of the loss of the migrant's labour and the receipt of remittances. As mentioned above, remittances affect household demand by shifting household budget constraints. However, the depth of the poverty reduction and its sustainability depends on the background of the migrants and the prudent use of remittances by the sending households. Hence, the magnitude of the correlation of remittances and poverty reduction differs according to individual migrants, the characteristics of migrant households, usage of remittances, and time and space. The present study focuses more on empirical evidence, with respect to Sri Lanka, on this issue and thus contributes to the body of literature on rural-to-urban labour migration.

1.2. Internal migration, remittances and Sri Lanka

Sri Lanka is a small island in the Indian Ocean. By regaining independence in 1948, the economy was dominated by the commercial plantation sector. Although Sri Lanka has become increasingly industrialised since the 1950s, a liberal economic model was adopted instead of inward-looking economic policies in 1977 (Kelegama, 2007). These economic reforms have transformed the Sri Lankan economy from a colonial export-oriented structure to an export-led manufacturing one, resulting in the emergence of rural-to-urban migration¹ within the country. With the establishment of the EPZs with highly labour-intensive factories, labour demand for both skilled and unskilled increased to a very great extent. Therefore a huge number of migrants, specially youths, came from rural communities to the main cities. Since 1978, a majority of young single women have formed the backbone of an economic shift in Sri Lanka towards export-led industrialization. As most of the workers are from the rural communities, they contribute, through remittances, to developing the rural

¹ Although internal migration existed prior to the market reforms in Sri Lanka, the rural-to-urban migration on which this study focuses emerged significantly after the establishment of EPZs in 1978. Especially with the economic reforms and accompanying changes in socio-economic conditions in Sri Lanka, female migration was accelerated through EPZs.

economy in Sri Lanka by supporting households in their areas of origin. EPZs have made a large contribution on poverty alleviation in Sri Lanka. High unemployment and youth unrest have compelled a majority of young females to undertake the primary breadwinner role for their households. This demonstrates that rural-to-urban migration contributes significantly to rural communities and quantifying the direct impact of internal migration on migrant-sending communities leads better policy formation for the country.

Sri Lankan internal migration, in particular rural to urban labour migration differs from classical migration theory. However, it shows similarities to Zohry's study (2009), which indicated that Egyptian internal migration is independent of agricultural seasonality as surplus labour can occur at any time. As in the Egyptian case, there is no survival option for Sri Lankan young rural labour particularly unskilled female other than migration. Comparatively, migration to urban cities is less cost for these workers rather than migrating to other countries. Nearly 80 per cent of the population in Sri Lanka belongs to the rural sector while 83 per cent of the total poor belong to the rural sector in Sri Lanka (DCS, 2011). As majority belongs to agricultural communities and no sustainable income, migration and remittances are the alternative livelihood strategies for these poor households in Sri Lanka.

Although there has been significant flow of migration from the rural sector to the urban sector since 1977 with the establishment of EPZs, there is a negligible amount of research on rural-to-urban migration in general and of analysis of the economic impact of rural-to-urban migration on rural communities in particular. Even the existing few studies on internal migration have focused on migration patterns, determinants and consequences of lifetime inter-district migration, along with demographic perspectives in Sri Lanka (Perera S, 2005 2008; Ukwatta, 2005). Ukwatta (2005) has further argued that internal female migration from agricultural areas is higher than male migration due to EPZs, while women's participation in agriculture has declined in the recent past. However, none of these studies emphasize the impact of rural to urban migration and remittances on their place of origin.

Due to lack of data and statistics, there are few attempts to study rural to urban labour migration and development in Sri Lanka. However, it is imperative to explore the impact of rural to urban temporary labour migration and remittances on rural communities and how it contributes to reshape the rural sector in Sri Lanka through income diversification. According literature, this study is the first attempt to examine the economic impact of rural-to-urban labour migration in Sri Lanka. Hence, the present study fills a literature gap on rural-to-urban migration in Sri Lanka highlighting the importance of the effects of rural to urban labour migration on poverty reduction and rural development in the country. Further, this study highlights the importance of detailed and systematic surveys of rural to urban temporary labour migration in Sri Lanka.

2. Methodology

This study employed a sample survey of 377² rural-to-urban migrant workers who were selected non-randomly from 20 selected urban factories located in Gampaha District in Sri Lanka in 2011. The interview

² Although 400 migrants were surveyed, there were some incomplete records and I had to reject a few.

was mainly based on a structured questionnaire focusing their period of migration and work history, demographic characteristics of the workers and their household members, place of origin, purpose of remittances and use of the remittances by household members.

There were migrants who remit and do not remit for their left behinds in our sample. Thus, the remittance data we obtained consists of both positive and zero values. Hence, employing OLS regression analysis for estimating the factors affecting remittances may be inconsistent and biased due to the nature of this data which is censored data for the dependent variable; the amount remitted. Tobit (1958) regression model has developed to overcome these kind of problems. Therefore, a Tobit regression model was applied to the censored remittance data of the migrant workers. Due to the limitation of answering both the determinants of remittances and the magnitude of the remittances the same through the Tobit model, a probit model was also employed to examine the decision to remit (Brown, 1997). Consequently, probit estimations provided the factors influencing the decision to remit while Tobit estimates provided the simultaneous decisions of whether to remit or not and how much to remit. Stata software was used to analyse the results of these models.

2.1. Tobit regression model

This paper employed Tobit regression model based on Banerjee (1984) who added a new approach for testing Tobit regression using remittance data focusing on the factors affecting to the decision to remit and how much to remit. Also we employed Probit regression for the analysis and OLS Ordinary Least Square (OLS) regression is also used to compare with the results obtained using other estimators.

The models are as follows,

The Tobit Model:

$$R_i^* = X_i\beta + u \dots\dots\dots(1)$$

We assume $\tau = 0$, as the remittance data are censored at zero. Hence we have

$R_i = R^*$ if $R^* > 0$ for migrants who remit

$R_i = 0$ if $R^* = 0$ for migrants who do not remit

R is the amount remitted to their families in the place of origin.

R^* is the corresponding latent variable.

X denotes vector of explanatory variables and

β is the expected coefficient for the explanatory variables.

u is the disturbance term.

2.2. Probit Regression Model

$$R_i = \beta X_i + u \dots\dots\dots(2)$$

where R_i indicate the remittance decision of the migrant worker/respondent,

X_i is a matrix of covariates ($K \times 1$ regressor vector),

β is a vector of parameters to be estimated and u_i is the error term, which is assumed to be normally distributed.

Binary variable R_i can be defined as follows:

$R_i = 1$ if regular remittances received are positive

$R_i = 0$ otherwise

2.3. Ordinary Least Square (OLS) regression model

$$Y_i = \alpha + \beta X_i + u_i \dots \dots \dots (3)$$

Y_i represents annual remittance in one model and regular³ remittance in the other model.

X_i denotes a variety of explanatory variables.

β is the expected coefficient for the explanatory variables and α is the constant.

u is a normal error term.

3. Results and discussions

3.1. Determinants of remittance inflows

Remittances contribute significantly to the household economy in many developing countries while playing a main role by reducing poverty. Remittance was one of the main factors to reduce poverty over the last two decades in the context of Sri Lanka (Ranathunga and Gibson, 2015). Therefore it is very important to identify the factors which affect remittances for better understanding of the implications of rural-to-urban migration.

Determinants of rural-to-urban migration and remittances vary. According to the literature Lucas and Stark (1985) have done the very first attempt to explore the motivation to remit based on the theories. They have observed two broad motives for remitting: altruism and self-interest. However, there are arguments on these two motives as it can be taken as combined elements of altruism and self-interest such as insurance and loan repayments (Atamanov and Van den Berg, 2010). Also the migrants and their family members should influence the choice of remittances.

In general rural-to-urban migration leads to significant economic gains mainly through remittances. Thus, this study employed Tobit, probit and OLS regression models to analyse the survey data to investigate what factors influence the decision to remit in the context of Sri Lanka. As not all migrants remit to the left-behinds in the place of origin, the data are subject to a potential truncation problem. Tobit regression works well in addressing censored or truncated data. Nevertheless, Tobit estimations have the limitation of forcing both the determinants of remittances and the magnitude of the remittance to have the same effect (Brown, 1997). Consequently, this analysis employed a probit model specifically to analyse the determinants of the purpose

³ Regular remittance consists of either monthly remittance or once every three months as regular remittances.

of remitting. Hence, probit estimation provides the factors that influence the decision to remit while Tobit estimation provides the simultaneous decisions of whether to remit or not and how much to remit. The robustness of the results has been tested.

Based on the results of Tobit regression and OLS regression analysis (Table 01), it can be confirmed that altruistic remittances depend positively on migrants' monthly income but negatively on household farm income⁴ either for the regular remittances or the annual remittances. The annual bonus of the respondents is a highly significant and positive determinant of remittances and they have used these extra earnings for housing purposes, buying durables, or savings. As well as the *Seettu*: a lump sum of money has a significant positive impact on determining remittance. The migrants' perception was these bonus and *seettu* help a lot for them for sending money for their left behinds at home. Married migrants are more likely to remit regularly as they are the bread winners of the family and have children at home. Households with more students are more likely to receive regular remittances regardless the marital status. It is clear that the savings of the migrants and the annual remittances are positively correlated, because migrants send money for the purpose of savings.

Education of the respondent has a negative impact on the decision to remit and on the amount to remit as those with higher education earn through migration for their own education expenses. Hence, they would not be able to remit for the family members at the place of origin.

Most researchers have attempted to estimate only the impact of remittances and in-kind flows to migrant-sending communities. However, in-kind flows (mostly in-kind but rarely money) also occur from the sending communities to the working destinations of the migrants. The present study examines, for the first time in the migration literature for Sri Lanka, whether in-kind flows from the households of origin to the migrant workers have a significant impact.

Table 1. Determinants of rural-to-urban worker remittance: OLS and Tobit Results

Determinants	Tobit		OLS	
	Regular remittance ¹	Annual remittance ²	Regular remittance ¹	Annual remittance ²
Average salary	0.174 (3.95)**	1.126 (1.99)*	0.163 (2.49)*	1.142 (2.00)*
Savings	-0.048 (0.75)	4.022 (4.95)**	-0.034 (0.44)	3.985 (2.07)*
<i>Seettu</i> ⁵	-0.049 (0.39)	2.959 (1.87)	-0.013 (0.13)	2.823 (2.01)*
Age2	-0.001 (0.38)	-0.032 (0.88)	-0.000 (0.02)	-0.027 (0.89)
Age	0.081 (0.40)	2.396 (0.93)	-0.007 (0.03)	1.979 (0.97)
Gender(male =1)	0.511 (0.93)	12.440 (1.77)	0.470 (1.11)	12.285 (1.78)
Education (No of years)	-0.274 (2.48)*	0.368 (0.26)	-0.224 (2.39)*	0.417 (0.24)

⁴ Farmland ownership has been included as a proxy for household income as income data is not reliable.

⁵ *Seettu* is an informal financial program among workers. A few people get together and organize to collect some fixed amount from all the group members. One member one will be entitled to have the lump sum on any given occasion. Turns are decided by a raffle.

Total land owned by family	-0.313 (4.12)**	-2.538 (2.71)**	-0.223 (3.96)**	-2.545 (2.88)**
Bonus	0.150 (4.37)**	1.164 (2.60)**	0.129 (1.96)	1.146 (1.75)
No of students of family	1.064 (4.22)**	2.749 (0.84)	0.890 (4.00)**	2.507 (0.86)
Experience	0.089 (1.08)	0.479 (0.45)	0.110 (1.65)	0.575 (0.50)
Marital(single=1)	1.497 (2.93)**	0.521 (0.08)	1.013 (2.51)*	-0.354 (0.05)
In-kind received	-0.209 (1.25)	-4.531 (2.15)*	-0.160 (1.26)	-4.087 (1.98)*
Constant	0.253 (0.08)	-22.667 (0.53)	1.972 (0.78)	-16.024 (0.45)
Observations	357	357	357	357
R-squared			0.23	0.19

Source: Author's calculations using field survey data

* Significant at 5%; ** significant at 1%. Robust t statistics in parentheses

Absolute value of t statistics in parentheses

Note: 1. Regular remittances consider monthly or three-monthly regular remittances in 1000 rupees.

2. Annual remittances include in-kind (1000 rupees) sent by the migrants.

According to the results, although the in-kind variable shows a negative and insignificant impact on the decision to remit regularly, but a negative and significant relationship can be examined between the decision to remit annually and receiving of in-kinds. This may be due to migrants did not receive monthly in-kind. However, it has been proved that rural-to-urban in-kind flow is an important factor to determine the annual remittances in rural-to-urban labour migration in Sri Lanka.

3.2. Usage of remittances in rural communities

Usage of remittances in the migrants' households of origin is an impotent factor to assess the impact of rural-to-urban migration on development in rural communities. Thus, this study examines the determinants of the usage of remittances using probit regression. The remittance data has been disaggregated according to the usage of the remittances. Most other studies show that more than half of remittances are used for consumptive purposes (De Brauw and Rozelle, 2008; Zhang, 2010). This is a common phenomenon of migration in developing countries. Nevertheless, a considerable proportion (nearly one third of the remittances in the current study), go for productive investment which can generate multiplier effects in terms of income and employment. They have been identified here as education and farming. Specifically, the higher the number of students in the family, the higher the remittances received for the purpose of education. Households with more farm lands are more likely to receive remittances for the purpose of farming.

The probit analysis results reveal that making annual remittances decreases significantly as migrants' stay in the city becomes longer. At the beginning of the migration process, more remittances will be received and over time, as they shift to other channels of income, the remittances they receive decline. The probit results also confirm that the variable of in-kind flows to the urban sector have a significant positive impact on remit decision-making (Table 2). Thus, it can be examined that higher the in-kind flow to the urban sector higher the

amount of remittances to the place of origin. According to the survey results almost 80 per cent of the migrant workers who received in-kind remittances were female migrants. Male migrants are mostly reluctant to cook at the boarding place and buy foods from outside. The in-kind transfers included mainly raw foods such as rice, vegetables and coconuts, with some cooked food items and also the types of in-kind transfers depend on the crops which was cultivated at the place of origin. It was examined that the frequency of receiving in-kinds depend on migrants' number of visits to their place of origin or the number of visits by household members to the boarding place.

Although unmarried respondents are more likely to remit, this variable shows a negative impact on the purpose of remittance for daily expenses. The higher the number of students in the household lower the remittances for daily expenses, but the higher the remittances for education purposes. There is no significant impact of any of the determinants of remittances on the purposes of housing, durables and savings. The higher the age of the migrant, the probability of receiving remittances are higher for the purpose of education, because older people have their own children at home. Usually, when the extent of arable land owned by the household is greater than average, the likelihood of receiving remittances for consumption purposes will be lower. However, the likelihood of receiving remittances is higher for the purpose of farming activities. This study confirms that rural to urban migrants remit not only for the consumptive purposes but also for the investment purposes in Sri Lanka.

4. Conclusion

This paper examined the remittances and its impact on sending communities in the rural sector in Sri Lanka based on the sample survey data.

The determinants of remittances indicated that unmarried migrants are more likely to remit for daily expenses in their households of origin to support elderly people and/or parents who cannot work and do not have a proper income in the places of origin. At the same time, households with more students are more likely to receive regular remittances for daily expenses for the purpose of education. Also the households with larger areas of farmlands are less likely to receive regular remittances for consumption purposes but for the investment purpose. None of the migrants remit regularly for the purpose of buying durables or building houses as this may require large sums of money and they do remit for these purposes when they get a lump sum of money such as bonuses or *seettu*. However, the decision to remit depends on the purpose of using the remittance rather than the amount of wages or experience. These results confirm that rural-to-urban labour migration is a good source of income for the rural communities not only for the consumptive purposes but also for the investment purposes. Based on both the empirical literature and the findings of this survey, it can be concluded that rural-to-urban temporary labour migration contributes immensely to improve the well-being of the rural farm communities.

Table 2. Determinants of the usage of remittances in the place of origin

Determinants	Ever remit ¹	Daily expenses	Education	Farm work	Housing and durable	Loan repayment	Savings
Average salary	0.000 (0.84)	-0.001 (0.31)	0.003 (1.15)	0.001 (0.37)	0.004 (1.35)	-0.003 (1.37)	-0.004 (1.53)
Total land owned	-0.001 (2.04)*	-0.027 (2.65)**	0.005 (1.04)	0.016 (2.59)**	-0.005 (1.02)	-0.009 (2.25)*	-0.001 (0.10)
No of migrants	-0.004 (1.56)	-0.053 (1.29)	0.004 (0.18)	0.029 (0.97)	-0.032 (1.41)	0.019 (1.37)	-0.050 (1.87)
No of years of schooling	-0.003 (1.97)*	-0.004 (0.27)	-0.005 (0.57)	-0.012 (1.24)	0.019 (1.67)	-0.004 (0.93)	-0.005 (0.64)
Marital (single=1)	0.049 (3.72)**	-0.171 (2.77)**	0.052 (1.78)	-0.009 (0.20)	0.032 (0.93)	0.044 (1.80)	0.070 (1.94)
In-kind received	0.009 (1.98)*	-0.070 (1.38)	0.058 (1.91)	0.053 (1.35)	0.013 (0.46)	-0.026 (1.34)	0.053 (1.73)
Age	0.006 (3.78)**	0.005 (0.22)	0.028 (2.35)*	0.022 (0.96)	0.019 (0.91)	0.002 (0.26)	-0.007 (0.51)
Age ²	-0.000 (3.65)**	-0.000 (0.05)	-0.000 (1.92)	-0.000 (1.25)	-0.000 (1.29)	0.000 (0.06)	0.000 (0.44)
Number of years of experience	-0.001 (2.59)**	-0.010 (1.06)	-0.008 (1.40)	0.001 (0.08)	0.010 (1.46)	-0.006 (2.06)*	0.002 (0.34)
Number of students of family	0.004 (1.75)	-0.070 (2.11)*	0.077 (4.17)**	-0.004 (0.19)	-0.033 (1.44)	-0.006 (0.72)	0.027 (1.71)
Observations	373	373	373	373	373	373	373

Robust z statistics in parentheses * significant at 5%; ** significant at 1%

Note: the ever remit dummy variable considers annual remittances including in-kind sent by migrants. If the amount is positive the value is 1; otherwise zero.

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References

- Atamanov, A., and Van den Berg, M. (2010), "Rural non-farm activities in Central Asia: a regional analysis of magnitude, structure, evolution and drivers in the Kyrgyz Republic", Working paper [MGSoG/2010/005], Maastricht University, The Netherlands.
- Banerjee, B. (1984), "The probability, size and uses of remittances from urban to rural areas in India", *Journal of Development Economics*, Vol. 16 No. 3, PP. 293-311.

- Brown, R.P.C. (1997), "Estimating remittance functions for Pacific Island migrants", *World Development*, Vol. 25 No. 4, PP. 613-626.
- Clemens, M.A. (2011), "Economics and emigration: Trillion-dollar bills on the sidewalk?", *Journal of Economic Perspectives*, Vol. 25 No. 3, PP. 83-108, doi:10.1257/jep.25.3.83
- DCS. (2011), *Household Income and Expenditure Survey - 2009/10 - Final Report Colombo*, Department of Census and Statistics, Ministry of Finance and Planning, Sri Lanka.
- De Brauw, A. and Rozelle, S. (2008), "Migration and household investment in rural China", *China Economic Review*, Vol. 19 No. 2, PP. 320-335.
- De Hass, H. (2006), "Migration, remittances and regional development in Southern Morocco", *Geoforum*, Vol. 37 No. 4, PP. 565-580.
- Deshingkar, P. and Grimm, S. (2005), *Internal migration and development: A global perspective*, International Organization for Migration, Geneva, Switzerland.
- DeWind, J. and Holdaway, J. (Eds.). (2008). *Migration and development within and across borders: Research and policy perspectives on internal and international migration*, International Organization for Migration (IOM) and Social Science Research Council (SSRC).
- Kelegama, S. (Eds.) (2007), *South Asia in the WTO*, Sage Publications Pvt. Ltd. New Delhi
- Lucas, R.E.B. and Stark, O. (1985), "Motivations to remit: Evidence from Botswana", *The Journal of Political Economy*, PP. 901-918.
- McKenzie, D. and Rapoport, H. (2007), "Network effects and the dynamics of migration and inequality: theory and evidence from Mexico", *Journal of Development Economics*, Vol. 84, No. 1, PP. 1-24.
- Oberai, A.S. and Singh, H.K. (1980), "Migration, remittances and rural development: Findings of a case study in the Indian Punjab", *International Labour Review*, Vol.119 No.2, PP. 229-41.
- Perera, S. (2005), "Patterns, determinants and consequences of Internal migration in Sri Lanka 1981-2001", *Institute of Workers's Education (IWE) Journal*, Vol. 5, PP. 76-101.
- Perera, S. (2008), "Female internal labour migration, living conditions and vulnerability: a case study of Katunayake export processing zone Sri Lanka", Academic Workshop on Migration Vulnerability and Security (SLFI), Colombo.
- Ranathunga, S.P.B. and Gibson, J. (2015), "The factors determine household-poverty in the estate sector in Sri Lanka", *Global Business and Economics Research Journal*, Vol. 4 No.1, PP. 17-30.
- Ratha, D., Mohapatra, S. and Scheja, E. (2011), "Impact of Migration on Economic and Social Development: A Review of Evidence and Emerging Issues", Policy Research working paper [WPS 5558]. World Bank. <https://openknowledge.worldbank.org/handle/10986/3328> License: CC BY 3.0 IGO.
- Stark, O., Taylor, J.E. and Yitzhaki, S. (1986), "Remittances and Inequality", *The Economic Journal*, Vol. 96 No. 383, PP. 722-740.

- Tabunga, A.D. (2007), "International remittances and household expenditures: The Philippines case", Discussion Paper [18], Philippine Institute for Development Studies.
- Taylor, J.E. and Filipski, M. (2011), "The impact of migration policies on rural household welfare in Mexico and Nicaragua", *Working Papers, OECD Development Centre*.
- Taylor, J.E. and Martin, P.L. (2001), *Human capital: migration and rural population change*, Handbook of agricultural economics, Elsevier, New York.
- Tobin, J. (1958), "Estimation of relationships for limited dependent variables", *Econometrica*, Vol. 26, No. 1, PP. 24-36.
- Ukwatta, S. (2005), *Internal migration of women and development in Sri Lanka*, Migration Development and Poverty Reduction Asia, International Organization for Migration,
- Zhang, M. (2010), "The impact of rural-urban migration: Case study on the Loess Plateau of Central China", *China Information*, Vol. 24 No. 2, PP. 169.
- Zohry, A. (2009), *The migratory patterns of Egyptians in Italy and France*, CARIM Research Report [2009/17], Robert Schuman centre for advanced studies, San Domenico Di Fiesole (FI), Italy: European University Institute.
- Zosa, V. and Orbeta Jr, A. (2009), "The social and economic impact of Philippine international labor migration and remittances", Discussion paper series No. 2009-32, pp. 1-36.