

Emigration and Impact of Utilisation of Remittances at Household Level in India: A Propensity Score Matching Approach

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Abstract

This paper examines the effect of remittances on the socio-economic circumstances of poor and non-poor households receiving remittances and also shows the impact of remittances at the source region in India. We use data from the 64th round of National Sample Survey. It is estimated that there are 3.49 million emigrant households. A vast disparity exists in the utilization of remittances in day to day life expenditure and human capital formation by remittances receiving households. There has been an impact of remittances on the emigrant households in the source region. Based on propensity score matching, the paper shows that remittances have a positive and strong effect on reducing rural household poverty compared with urban households.

Keywords: Emigration; remittances; poverty status; National Sample Survey; Propensity Score Matching; poverty status.

I. Introduction

Remittances play a significant role in the socio-economic condition of emigrant households in India. Household members emigrate to look for a better standard of living and improve their household status and India is no exception to it (Bhagat, Keshri & Ali, 2013; Quisumbing & McNiven, 2007; Stark & Bloom 1985). International migration plays a significant role in reshaping and crafting the socio-economic circumstances of emigrant households (De Haan, 1999; De Hass, 2009; Sikder & Ballis, 2013; Stark & Lucas, 1988) and the most tangible of these are remittances that migrants send home (Sikder & Ballis, 2013). The direct result of emigration is remittances and an explanation of this outcome has been a matter of discussion among scholars. Most of the early researchers have deduced the effect of migration negatively and argued that this promotes spending on unnecessary consumables (Chami et. al., 2003; Sofranko & Idris, 2009) as well as the full or partial dependence of the household members on remittances (David, 1995; Lipton, 1980). On the other hand, some other researchers consider the positive aspects of emigration and remittances arguing that expenditure out of remittances on consumption may not necessarily be futile as it contributes to social, cultural and economic development through financial and social investment (Azeez & Begum 2009; De Haan & Yakub, 2008). It also acts as a means of risk sharing and provides security from any unwanted financial crisis (Lucas & Stark, 1985; Yang, 2009; Zachariah & Rajan, 2008; Bhagat, Keshri & Ali, 2013). Remittances are very important for many households in case of developing countries like India where 56 per cent of remittances are spent to meet day to day expenditure and they are also utilized during expensive social rituals and traditional transactions such as dowry (NSS, 2007-08; Jimenez-Soto & Brown, 2012; Tumbe, 2012). Additionally, remittances help in improving the quality of life by increasing the family's expenditure on education, health care, housing and other necessities (Sikder & Ballis, 2013; López-Videla & Machuca, 2014). They also provide capital for setting up an entrepreneurial venture (Azeez & Begum, 2009; Ratha, 2007). It has been argued that remittances empower the

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lives of the left behind family members of the migrant by providing them an opportunity to take control over their social circumstances and in decision making for themselves as well as their other family members (Gartaula, 2011; Sekher, 1997). Thus, remittances have a complex bearing on the lives of emigrants as well as the left behind population and according to Sabates-Wheeler & Waite (2003) emigration is a strategy to improve life chances.

Extant literature on the relationship between remittances and poverty shows that remittances reduce poverty at the household level. These optimistic views are supported by Adams and Cuecuecha (2013) in Ghana, using a two-stage multinomial selection model and treatment effect. They find that remittances play a significant role in reducing poverty at the household level and also support the growing view that remittances increase investment in developing countries. Similarly, Hass (2005) uses a cross-sectional and participatory appraisal approach to find that remittances play a vital role in alleviating poverty at the household and local economy levels, improving the livelihood of millions of people in Southern Mexico. According to Hass (2009), emigrant households invest more than others in housing, agriculture and petty business compared with non-receiving remittances households. Fransen and Mazzucato (2014) support this line of argument. Using Kernel matching approach they have calculated average treatment effect between remittances receiving households and non-remittances receiving households. They show that remittances have a positive and major effect on non-productive expenditure such as housing-living condition and food security in urban Burundi and they also play a significant role to cope with unprecedented crisis. The same finding is observed in another study by López-Videla and Machuca for Bolivia (2014). Jimenez-Soto and Brown (2012) estimated the effect of remittances on poverty in Tongo and showed that remittances reduce the incidence of poverty by 31 per cent. On the other hand, Cox-Edwards and Oreggia (2009) reject the hypothesis that regular flow of remittances creates a household's dependency on remittances. Ratha (2007) made a strong statement that migrant remittances are most tangible and perhaps the least controversial link between migration and development. In addition, remittances play a crucial role in reducing poverty at the household level as 10 per cent increase in per capita official remittances may lead to 3.5 per cent decline in the share of poor people. Remittances are positively linked with increasing the productive and non-productive assets.

An overall retrospection of scientific literature on emigration, remittances and poverty shows that there are limited studies on India due to lack of adequate data. Therefore, this paper attempts to examine the impact of utilisation of remittances at the household level by using data from 64th Round of the National Sample Survey (NSS). Since remittances represent an important source of income for the household living in the place of origin, these flows may have an effect on the poverty of households. Remittance receipts both from overseas and within India are important supplements to household income. This paper attempts to estimate empirically the impact of remittances on poverty. It examines the utilisation of remittances by households in selected states of India. By doing this, we examined the role of international and internal remittances in reducing poverty. We argue that remittances contribute significantly to poverty reduction in selected states. In order to tackle the issue of impact of remittances on poverty status, we use propensity score matching technique that makes comparisons of outcomes between those households which had received remittances from all sources (domestic as well as international) and those which had not received remittances from any source.

II. Data and empirical strategy

We use the Unit Level Data from the 64th round of NSS, which was conducted in all the states and union territories from 1 July, 2007 to 30 June, 2008. The NSS collected socio-economic and migration-related information from 572,254 persons of 125,578 sample households through Schedule 10.2 'Employment & Unemployment and Migration Particulars' (National Sample Survey Organisation, 2010). This round had a comparatively larger sample size and improved quality of data on migrants than earlier versions. Information regarding out-migration from India as a first time was incorporated in 49th round (January 1993-June 1993) and comprehensive

international migration data were captured in this round of the NSS. This round of the NSS collected sufficient information of out-migration for all the states and union territories. With the coverage of 125,578 households, it estimates emigration at the state level. There are 71.6 per cent households in rural areas and 28.5 per cent households in urban areas. Remittance-receiving households represent 9.2 per cent of the sample, i.e., 4.6 per cent in urban areas and 11.1 per cent in rural areas. The study defines the poor and non-poor households based on the official measure of poverty in terms of poverty line provided by the erstwhile Planning Commission of India (Planning Commission, 2009). Thus, if per capita household income is below the poverty line (for rural area it is per capita Rs. 446.68/per month and Rs. 578.8/ for urban area per month) the household is poor. This information is expressed as a dummy variable, where 1 means the household is poor and 0 otherwise.

Table1: Sample distribution of households by poverty status of households, remittances receiving status and place of residence in India, 2007-08

	Poor HH (%)	Non-Poor HH (%)	All households (%)	Total
Remittances status				
Receive remittances	7.47	9.62	9.24	29963
Do not receive remittances	92.53	90.38	90.76	95615
Total	100	100	100	125578
Domestic remittances				
Receive remittances	7.21	8.47	8.25	27108
Do not receive remittances	92.79	91.53	91.75	94810
Total	100	100	100	121918
International remittances				
Receive remittances	85.78	77.79	78.11	2,855
Do not receive remittances	14.22	22.21	21.89	805
Total	100	100	100	3,660
Place of residence				
Rural	82.34	69.26	71.57	79,091
Urban	17.66	30.74	28.43	46,487
Total	100	100	100	1,25,578

Source: 64th National Sample Survey 2007-08, unit level data.

This survey also provides information on utilization of remittances as first, second and third priority, the amount of remittances, reasons for emigration, engagement in economic activity, etc. An emigrant is defined as a former member of a household who left it any time in the past for staying outside India provided he/she was alive on the date of survey. An emigrant household is one having at least one emigrant who had emigrated without family in search of better employment to another country.

Propensity score matching (PSM)

In order to examine the effect of remittances on poverty at household level at the place of origin, the study adopted nearest neighbour method of PSM (Rosenbaum and Rubin, 1983). This approach gives an opportunity to examine the impact of remittances on poverty outcome through cross-sectional nationally representative survey data. Propensity score is estimated by logistic/probit regression with a dichotomous treatment variable, for instance, 1= remittances receiving households and 0 = non-remittances receiving households. With this approach we are able to calculate robust estimators in order to determine the effect of remittances on a household's poverty levels. The principal assumption in this method is that conditional of propensity score, the observable selected characteristics of the exposed and control groups have similar distributions (Rosenbaum & Rubin, 1983). This assumption test is applied by using 'pscore' command. If this balancing property is satisfied, then we estimate 'teffect' test to obtain the average treatment effect (ATT) on the remittances receiving households and non-remittances receiving households. In this paper, we present results using propensity score method; in the matching, estimator sorts all

records by the estimated propensity score, and then searches forward and backward for the closest control groups. Using this technique of propensity matching, households receiving remittances are matched with households that have similar background characteristics but do not receive remittances and assess the incidence of poverty level between households that receive and do not receive remittances.

It would be interesting to compare the household poverty status exposed to no treatment (non- remittances receiving household) and household exposed to treatment (receives remittances). Propensity score matching reduces the problem to a single dimension (Rosenbaum & Rubin, 1985) and the important feature of this methodology is that the propensity score matching has to satisfy the balancing property, that is, observations with the same value of the score must have the same distribution of observable characteristics irrespective of treatment status. If for a treated unit forward and backward matches happen to be equally good, this programme randomly draws either the forward or backward matches.

In this paper, difference in incidence in poverty outcome at the household level between exposed and control groups can be directly compared to show the effect of exposure on the treated group, known as average treatment effect (ATT). The study initially examined the impact of remittances utilization on impact poverty outcome at the place of origin by comparing the remittances receiving households against that matched control households. To assess whether the average effect is statistically significant, bootstrapped Standard Error around the estimates (López-Videla & Machuca, 2014; Fransen & Mazzucato, 2014) is estimated. The study has used STATA 13.0 package for the entire analysis.

III. Result and Discussion

Emigration rate per 1000 household

We calculated emigration rate which is defined as the number of emigrants' households at the time of survey (July 2007-June 2008) divided by all households expressed per 1000 households. The rate of emigration was 15.7 per 1000 households at the national level. At the level of population this rate was 4.4 per 1000 population at the national level (Bhagat, Keshri & Ali 2013). The state level emigration rates based on households are shown in Table2. The emigration rates vary from as high as 170 per 1000 households in Kerala to less than two in the states of Arunachal Pradesh, Madhya Pradesh and Assam. The state of Punjab shows an emigration rate of 52.7 per 1000 households, Goa 41.2, Tamil Nadu 26 and Andhra Pradesh 17.9 per 1000 households. Five states, namely, Kerala, Punjab, Goa, Tamil Nadu and Andhra Pradesh comprise of 65 per cent of all emigrants from India. This also shows the huge regional disparity in the emigration rates. Most of the north-eastern states have negligible emigration except Sikkim which shows an emigration rate close to the national average of 15.6 per 1000 households. Some of the union territories like Chandigarh, Daman and Diu, and Pondicherry also have high emigration rate, i.e., 10 per 1000 households and more. Developed states like Gujarat and Maharashtra have emigration rates of 9 to 11 per 1000 households, i.e., lower than the national average. What is emerging from results is that the EAG states, specially Rajasthan and Uttar Pradesh, which show an emigration rate per 1000 households, are close to developed states like Haryana and Gujarat. However, the pattern remains diverse across the states. But it seems that emigration levels are influenced by a combination of factors like history of emigration, economic development and stages of demographic transition across states.

Socio-economic determinants of emigration and remittances

In order to examine the association between household socio-economic factors with the emigration and remittance status, we have used multivariate binary logistic regression models as dependent variables are dichotomous. In Model I dependent variable is coded as "1" if a household has at least one emigrant member and "0" if otherwise. In Model II, we have considered

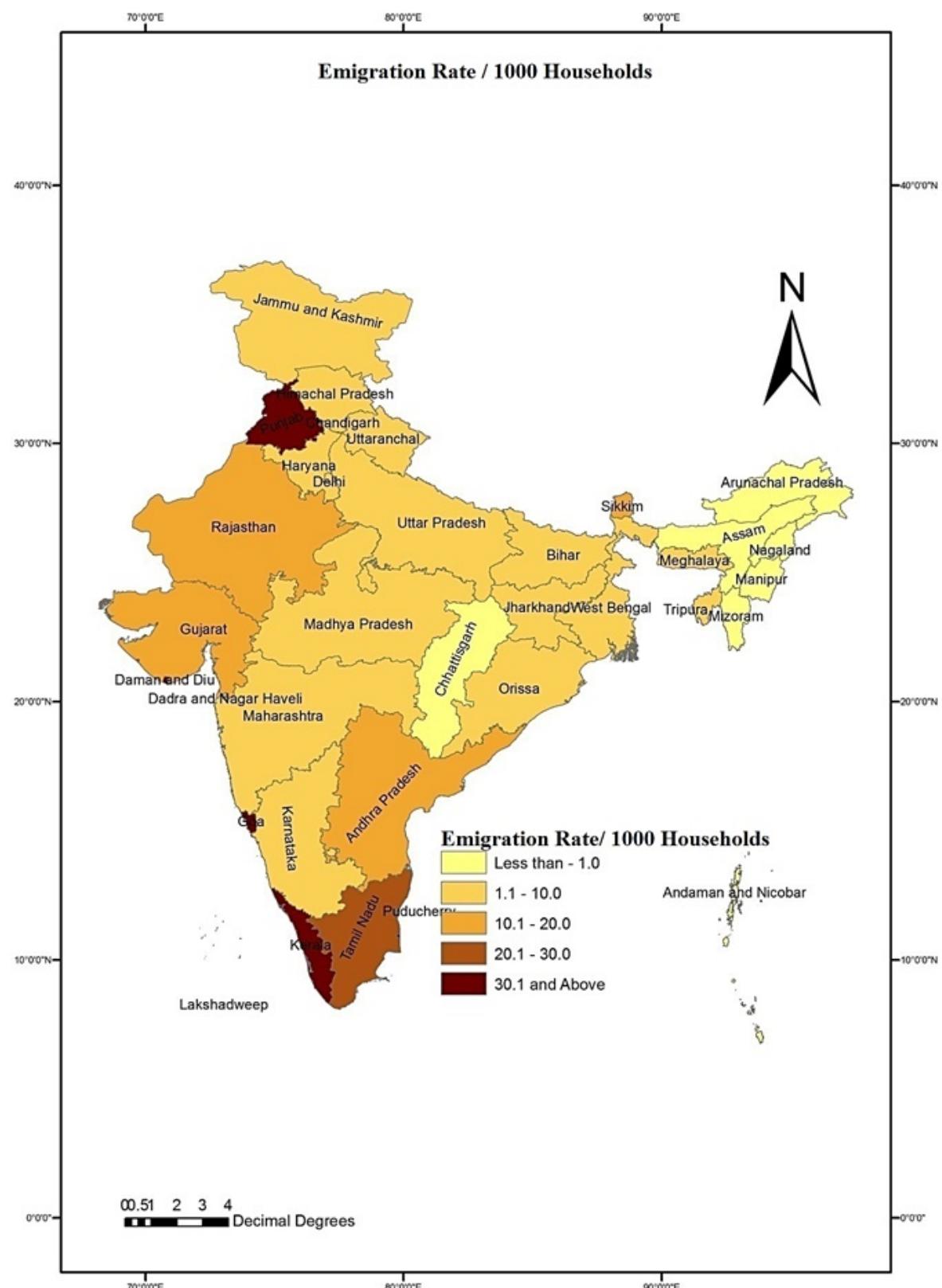
households with at least one migrant and dependent variable is coded as “1” if a household received remittances and “0” if otherwise. In Model III, we have considered household with at least one emigrant and dependent variable is coded as “1” if a household received international remittances and “0” otherwise.

Table 2: Estimated number of emigrant households and emigration rate, India, 2007-08

States	Estimated emigrant households	Emigration Rate (estimated emigrant HH/total surveyed household)*1000
Andhra Pradesh	3,63,944	17.9
Arunachal Pradesh	109	0.5
Assam	2,381	0.5
Bihar	89,037	5.9
Chhattisgarh	3,104	0.7
Delhi	3,318	1
Goa	13,858	41.2
Gujarat	1,21,500	11.2
Haryana	39,233	9
Himachal Pradesh	13,862	9.1
Jammu & Kashmir	5,100	3.2
Jharkhand	10,372	2
Karnataka	98,081	8.4
Kerala	12,47,577	170.3
Madhya Pradesh	16,626	1.4
Maharashtra	1,64,054	7.6
Manipur	264	0.6
Meghalaya	847	1.7
Mizoram	102	0.6
Nagaland	93	0.5
Odisha	17,507	2.1
Punjab	2,80,569	52.7
Rajasthan	1,68,420	14.7
Sikkim	2,014	15.6
Tamil Nadu	4,40,940	26
Tripura	2,960	3.5
Uttar Pradesh	2,93,988	9.2
Uttaranchal	9,770	5.3
West Bengal	70,574	3.9
Andaman & Nicobar	76	0.9
Chandigarh	6,459	24.3
Dadra & Nagar Haveli	107	2.5
Daman & Diu	1,995	56.6
Lakshadweep	121	9.5
Pondicherry	8,641	38.3
India	34,97,603	15.7

Source: 64th National Sample Survey 2007-08, unit level data.

Independent (predictor) variables are place of residence, social groups, religion, household size, poverty status of household and region. These Odd Ratios are used to interpret the expected risks of likelihood in particular dependent variable associated with a unit change in an explanatory variable, given that other correlates in the model are held constant. Logistic regression results are presented in Table 3, which presents three binary logistic models. Model I is related to the determinants of emigration, Model II assesses the determinants of remittances, and Model III examines the international remittances. Model I shows that people of general and OBCs social groups and non-poor households have a significantly higher likelihood of international migration.



This indicates, being a member of privileged social groups (general and OBCs) and economically better off class increases the likelihood of being an international migrant. From this, we can draw the conclusion that being a member of a privileged social group (General and OBCs) and economically better off class are the two major predictors of international out-migration in India. In the same way, with reference to a Hindu household, a Muslim household has 3 times and 'others' households have 5 times more likelihood of being an emigrant. Belonging to a person from an urban household has a more (OR: 1.2) likelihood of being out migrants than a person from rural household. Region wise, emigration propensity is higher for people from the south. The relationship between emigration and household size is negative and the same can also be said with respect to remittances. It is not the poor who emigrate but the better-off households who also receive higher remittances. In terms of international remittances, with reference to poor households, non-poor households are 3 times more (OR: 3.34) likely to receive international remittances. It is also true for social status categories like Scheduled Castes and Scheduled Tribes who not only have a lower propensity to emigrate but also receive lower international remittances.

Table 3: Results of logistic regression showing the determinants of emigration, remittances and international remittances, India, 2007-08

Covariates	Model I	Model II	Model III
Social Group			
Scheduled tribes®	1.00	1.00	1.00
Scheduled caste		1.15†	
Others backward classes	2.07†	1.31†	2.08†
Others	2.38†	1.43†	2.34†
Religion			
Hindu®	1.00	1.00	1.00
Muslim	3.52†	1.01	4.06†
Others	5.57†	1.03	5.21†
Place of residence			
Rural®	1.00	1.00	1.00
Urban	1.23†	0.71†	1.25†
Household size			
Less than 5®	1.00	1.00	1.00
5 and More than 5	0.90†	0.77†	0.89†
Poverty status			
Poor households	1.00	1.00	1.00
Non-poor households	3.13†	1.57†	3.34†
Region**			
Eastern®	1.00	1.00	1.00
Western	0.99	0.81†	1.07
North-eastern	0.12†	1.12†	0.14†
Northern	0.38†	1.25†	0.46†
South	2.35†	0.92†	2.66†
Pseudo R ²	0.1451	0.0142	0.1417
Log Likelihood	-13564.895	-66867.628	-11190.729
N	123183		

Notes: Significance level-†p<0.01, ††p<0.05, ‡p<0.1; ®Reference category; Model I (Dependent variable: Emigrant HH=1, Non-emigrants HH=0; Model II (Dependent variable: HH received remittances=1, HH received no remittances=0; and Model III (Dependent variable: HH received international remittances=1, HH received no remittances=0); Notes: ST/SC in combined in Model I and Model III.

** Region: North: Haryana, Punjab, Western Uttar Pradesh, Uttarakhand, Himachal Pradesh, Jammu & Kashmir, and Delhi; West: Gujarat, Maharashtra, Rajasthan, and Goa; North-east: Assam, Sikkim, Arunachal Pradesh, Nagaland, Mizoram, Tripura, Meghalaya, and Manipur; East-Bihar: Jharkhand, Chhattisgarh, Madhya Pradesh, Odisha, Eastern Uttar Pradesh, and West Bengal; South: Andhra Pradesh, Karnataka, Kerala and Tamil Nadu.

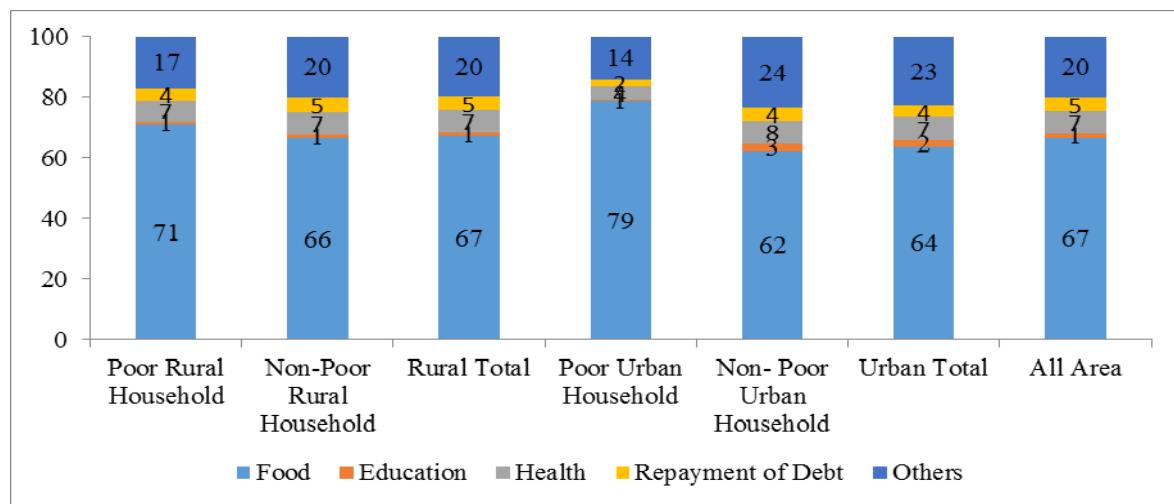
Source: 64th National Sample Survey 2007-08, unit level data.

Utilization of remittances by remittances receiving households

Remittances are vital in improving the livelihood of millions of people in developing countries including India. Many empirical studies have confirmed the positive contribution of international remittances to household welfare, nutrition, food, health and living conditions in places of origin (Bhagat, Keshri & Ali, 2013, Rapoport & Docquier, 2006).

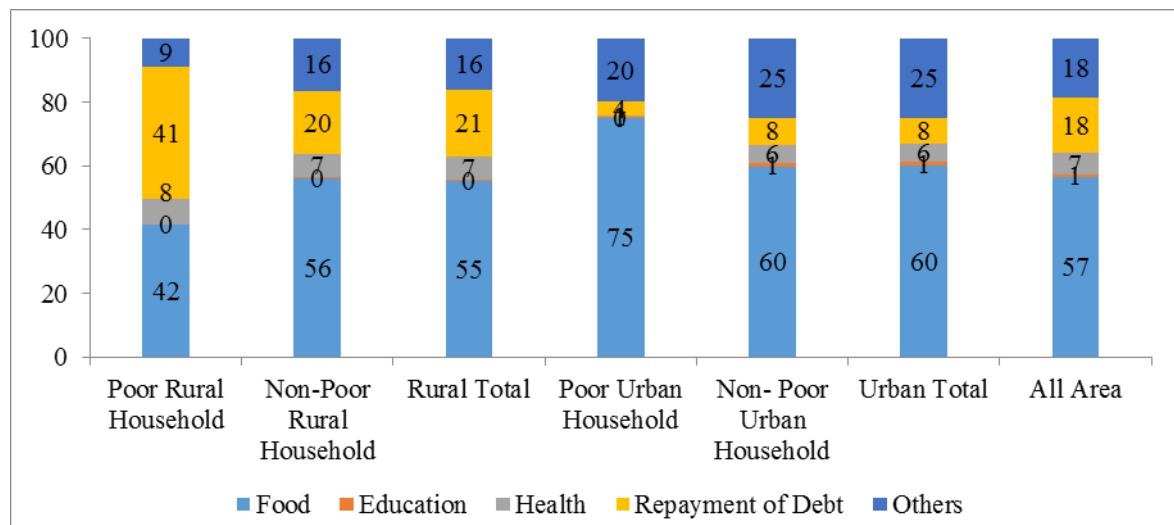
Figure 2 shows that about 67 per cent of remittances receiving households use remittances for food and only 7 per cent of households use them for health care expenditure. The result shows that remittances have a strong effect on day to day life expenditure and expenditure on 'others' (household durables, other consumer durables, financial condition, improving housing condition, new entrepreneurial activity, financial working capital and others) and weak effect on human capital formation such as education and health care.

Figure 2: Percentage of utilization of remittances by remittances receiving households, India, 2007-2008



Source: 64th National Sample Survey 2007-08, unit level data.

Figure 3: Percentage utilization of international remittances by emigrants' households, India, 2007-2008



Source: 64th National Sample Survey 2007-08, unit level data.

Figure 3 shows that, among the emigrants, remittances receiving households, as a first priority around 57 per cent of households used remittances to meet day to day life expenditure and around 18 per cent used for repayment of debt. Around 18 per cent of households used it for consumer (household durables, other consumer durables, financial condition, improving housing condition, saving, investment, new entrepreneurial activity, financial working capital and others) expenditure. There exists a vast difference in use of remittances for repayment of debt among poor and non-poor rural households. Around 41 per cent poor rural households use remittances for repayment of debt.

IV. Effect of remittances on poverty

Definition of variables

Outcome variable

The study defines the poor and non-poor households based on the official measure of poverty in terms of poverty line provided by the erstwhile Planning Commission of India (Planning Commission, 2009). Thus, if per capita household income is below the poverty line (for rural area it is Rs. 446.68/ per month and urban area Rs. 578.8/ per month) the household is poor. This information is expressed as dummy variable, where 1 means household is poor and 0 otherwise.

Treatment variables

In NSS 64th round, information regarding remittances was sought for the last one year. In the study, whether household received remittances (Yes/No) is the treatment variable. Here, propensity score is estimated by logistic/probit regression with the dichotomous treatment variable, for an instant, 1 = remittances receiving households; 0 = non-remittances receiving households during remittances using associated observed background characteristics of the head of the households.

Matching Variables

Matching variables are very important for constructing statistical comparison group for estimating the impact of treatment variable on poverty at the household level. On the basis of available literature and balancing test properties, this study included characteristics of the head of the household such as place of residence, sex, education attainment, marital status and religion. All these variables were associated with treatment variable as well as outcome variable.

Table 4: Description of Propensity Scores

	Overall
Range of common support	[0.04 to 0.76]
Mean of propensity score	0.23
Standard deviation	0.14
Significance of balancing property	0.02

Source: 64th National Sample Survey 2007-08, unit level data.

Table 4 presents a description of the estimated propensity score for all the cases. The mean propensity score was 0.23 with standard deviation 0.14 for overall. The region of common support between the remittances receiving households and non-remittances receiving households was high and ranged from 0.04 to 0.76 for overall. Remittances receiving and non-remittances receiving households with propensity scores outside the common support were not considered for the analysis. The balancing property was satisfied at significance level 0.02. Here the 'balancing' property is satisfied. The study still assumes that selection to the exposed group is not based on unobservable characteristics that also affect outcome variables. We can estimate the effect of

remittances among those who received and did not receive remittances based on poverty status of households. Satisfied balancing property clearly shows that there is no systematic difference in covariates between remittances receiving and no remittances receiving households. It means that both households have similar socio-demographic characteristics except for remittances. Then a difference in means in poverty between these treated groups can be attributed to remittances.

The study examines the impact of remittances on poverty by the estimated difference in the outcome between the remittances receiving households and the control group (no remittances receiving households) using Propensity Score Matching techniques (PSM). PSM reduces the bias found in an estimate of exposed effect obtained by comparing outcomes among units of exposed groups versus a control group by controlling the demographic and socio-economic variables. Results from Table 5 show the ATE for selected state for overall, urban and rural areas. Findings revealed that in Orrisa, which is belonged to less developed states, there is 16 per cent less probability to be in poverty for remittances receiving households. If we consider only rural area, there is strong and significant effect on reducing poverty at rural area but in urban area the effect of remittances on poverty status is very low although in Bihar, Haryana, Gujarat, Uttar Pradesh, Karnataka and West Bengal, there seems to be no effect of remittances on poverty when the sample is restricted to urban area. As Uttar Pradesh result shows, on an average, there is 7 per cent less probability to be in poverty for remittances receiving household and this result is similar to the rural area. Therefore, the effect of remittances on selected states shows positive and significant effect on rural area compared with urban area. The analysis shows that effects of remittances on poverty status at the household's level are less effective in urban areas. There is considerable impact of remittances on the emigrant and migrant households in the source regions which plays a vital role at the household level. This finding supports the growing view that remittances can reduce poverty at the household level and it is a panacea at the household level.

Table 5: State-wise average treatment effect (ATE), India, 2007-08

State	ATT			Total
	Total	Rural	Urban	
Jammu& Kashmir	-0.02 ^{††}	-0.01	-0.04 ^{††}	2128
Himachal Pradesh	-0.03 [†]	-0.03 [†]	-0.02 ^{††}	2228
Punjab	-0.04 [†]	-0.03 [†]	-0.05 [†]	3191
Haryana	-0.04 [†]	-0.04 [†]	-0.05	2384
Rajasthan	-0.05 [†]	-0.05 [†]	-0.07 [†]	5494
Uttar Pradesh	-0.07 [†]	-0.08 [†]	-0.04 ^{††}	12603
Bihar	-0.11 [†]	-0.11 [†]	-0.15 [†]	8,785
North-east states	-0.01 [†]	-0.02 [†]	-0.01	16750
West Bengal	-0.07 [†]	-0.10 [†]	-0.03 [€]	8,770
Odisha	-0.16 [†]	-0.19 [†]	-0.07 [†]	5,180
Madhya Pradesh	-0.11 [†]	-0.11 [†]	-0.11 [†]	6908
Gujarat	-0.02 ^{††}	-0.04 [†]	0.00	5156
Maharashtra	-0.05 [†]	-0.08 [†]	-0.02	10,044
Andhra Pradesh	-0.06 [†]	-0.08 [†]	-0.03 [€]	8702
Karnataka	-0.07 [†]	-0.13 [†]	0.01	5,240
Kerala	-0.03 [†]	-0.02 ^{††}	-0.03	3515
Tamil Nadu	-0.05 [†]	-0.06 [†]	-0.03 [†]	7089

Notes: Significance level-[†]p<0.01, ^{††}p<0.05, [€]p<0.10; here treated group 1= remittances receiving households and 0= non-remittances receiving households; outcome variable 1 = poor; 0 = non-poor.

Source: 64th National Sample Survey 2007-08, unit level data.

V. Conclusion

International labour migration plays a significant role in reshaping and crafting the socio-economic circumstances of emigrant households, and the most tangible of these are remittances that migrants send home. Many household members emigrate from their home to look for a better standard of living and to improve their household status, and India is no exception to this phenomenon. Information regarding out-migration from India for the first time was collected in 49th NSSO Round (January 1993-June, 1993) and comprehensive international migration data were captured in NSSO 64th Round. The present engagement, therefore, is an investigation of emigration and remittances at the micro level and an attempt is made to assess the various activities in which remittances are used. The paper shows that a vast disparity exists in the utilization of remittances in consumer expenditure and human capital formation by remittances receiving households. The result also shows that remittances have a strong effect on day to day life expenditure and expenditure on 'other' (household durables, other consumer durables, financial condition, improving housing condition, saving, investment, new entrepreneurial activity, financial working capital, and others) items and weak effect on human capital formation such as education, and health. The logistic analysis shows that a significant number of Muslim and Other (Christianity, Sikhism, Jainism, Buddhism, Zoroastrianism, Others) households is economically dependent on remittances. It is also a matter for further probing why Muslim and Other youth seek jobs abroad in larger proportions? Unfortunately, NSSO data do not throw light on this aspect. The non-poor households received more internal and international remittances. The propensity score matching analysis shows that there is a positive effect of remittances on reducing rural and urban household poverty in selected states of India. This result supports the growing view that remittances can reduce poverty at the household level and increase investment in developing countries. As this paper is based on cross-sectional nature of data, this is an obvious limitation on the impact of remittances on poverty reduction at the household level.

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