

# A Study On Remittances In Rural Assam

**Piyali Das**

*M.A. & M.Phil in Economics, Gauhati University.*

## **Abstract**

The study evaluates the phenomenon of rural out-migration and remittance received by household in rural Assam. The purposes of study include determining the significant influence of different explanatory factors on remittance sending and considering the remittance in terms of loss of rural young labour force. Based on NSSO, 64<sup>th</sup> Round survey conducted during 2007-2008 and using binary logistic model, it is revealed that various demographic, social, economic factors viz. household size, age group, gender wise marital status, religion, social groups, household type based on occupation, general education and location are found to have significant influence on the probability of sending remittance to rural household by out-migrants. From the analysis of data, it is shown that remittance sent by out-migrants is not sufficient for rural household in Assam. It requires for proper measures to promote self employment especially non-farm employment to prevent rural-out-migration and turn them into wealth of rural economy.

**Keywords:** Rural, out-migration, remittance, demographic bonus

## **I. INTRODUCTION**

India is predominantly rural in nature with 68.8 percent of total population and 72.4 percent of workforce inhabited in rural areas (Census of India, 2011). The socio-economic structure is associated with heavy dependence on agriculture influenced by nature, small and fragmented landholding. It leads to create scarcity of land for cultivation along with inequitable land distribution, small size and productivity of livestock, low capital-labour ratio and factor productivity, high rate of poverty, low level of skill and education of workforce. Other factors are lack of adequate infrastructure, lack of available employment opportunities, underdeveloped non-farm sector, lack of better education and medical facilities, and natural calamities etc. These constitute as push factors and compel rural surplus and unemployed labour force along with other rural people except the purpose of job to migrate from the place of origin (i.e.rural) into other places. With rapid urbanization, the pull factors

attracting rural labour force into urban or semi-urban areas include the prospects of searching or obtaining better employment opportunities with higher wages and congenial working environment, securing qualitative and higher education, better medical facilities etc. It is worth mentioning that urbanization results in reduction of share of rural sector in GDP and employment. The rate of decline in GDP is more than that of employment which indicates the major contribution of capital-intensive sector of urban areas in economic growth. But this sector bears lesser capacity to absorb available labour force leading to the issue of unemployment and underemployment (Chand et al., 2017). Urban population of India continues to grow by 31.8 percent compared to rural population by 12.18 percent during the period 2001-2011 and at least fifty percent of this increase in urban population in the period was contributed by rural-urban migration along with re-classification of rural settlements into urban areas (Chand et al.,2017; Pradhan, 2013). Rural outmigration creates some favorable and

unfavorable phenomenon in terms of increased land-labour ratio and resources per capita, receipts of remittances sent by migrant workers. Moreover, less number of people for consuming in families and changes in composition and structure of population with loss of young labour force and economically active population and split of families etc. are prevalent in rural communities. The place of destination where rural out migrants settled experience increased economically active labour force and cultural wealth with intermixture of diverse culture. On the other hand, heavy burden on resources, services such as education, health care facilities, abrupt growth of slums with scarcity of basic infrastructure, overcrowding leading to environmental issues etc. are found. Migration can contribute to development at the place of origin in terms of poverty reduction and economic growth through remittances sending and at the place of destination in terms of increased economic growth if the policymakers can manage migration effectively (Sali & Astige, 2015). But remittances received by the place of origin have some negative impacts such as lack of incentive for work and consequent increase in number of dependent members at household level (Dorantes, 2014). North East Region exhibits higher proportion of migrant households to total households especially for employment and studies relative to national figures (Remesh, 2012). All states of the region record high proportion of migrants with education level of "graduate and above" except Assam and Tripura; while small number of migrants are included in the category of illiteracy compared to national average in the region. There has been steady rise in out-migration from the region as per Census data from 1981-2001 (Chyrmang, 2011; Remesh, 2012). Movement of youth from the region includes seeking employment, securing higher education along with the view of safety from socio-political unrest. Their employment status are mostly found to be official or white collar occupation in government and private sector (Shimray, 2007; Remesh, 2015). About one

lakh people migrated from north east region to other cities of India (Assam Chronical, 2011). The recent phenomenon of out-migration of the region creates an issue which requires an appropriate policy to minimize the harmful impacts and maximize the benefits resulting from migration (Remesh, 2012).

Assam, one of the north east states, experiences more the case of permanent migration (918 per 1000 of migrants) compared to temporary (only 82 per 1000 of migrants); the total number of male and female out-migrants from rural and urban areas are shown to be 42 and 49 per 1000 persons. The reasons for out-migration include higher proportion of employment followed by marriage, movement of earning members of family, securing education, others and distress migration (NSSO, 2007-2008). North eastern states are not sending remittance of considerable amount in spite of impressive income compared to other states due to high personal expenditure. Less remittance sending and loss of rural labour force affect the process of reaping demographic dividend. The study attempts to determine the significance of various socio-economic factors in considering remittance sent by rural out-migrants.

### **Statement of Problem**

Studies on migration especially out-migration shows a steady and steep rise during the census period 1981-2001 which leads to a matter of consideration to manage the phenomenon effectively by policy makers (Chyrmang, 2010). The rural Assam experiences increasing trend of out-migration from 1.6 million to 2.8 million from 1999-2000 to 2007-2008 (NSSO 55<sup>th</sup> & 64<sup>th</sup> round reports, 2000 & 2008). As per a study, the out-migrated rural youths are not only settled in big cities but also in small towns as factory workers (Das & Chutia, 2011). Majority of out-migrants belong to the age groups of 18-25 and 25-30 signifying loss of rural youth that could be employed productively in rural areas by adopting necessary requirements. Moreover, this loss could be compensated in terms of remittances sending to rural households. But a significant

portion of rural out-migrants in Assam do not send remittances (NSSO 64<sup>th</sup> round report, 2007-2008). The study focuses on rural out-migrants instead of urban out-migrants. The study attempts to consider the factors in determining remittance sent by rural out-migrants based on secondary data of NSSO, 64th Round on Employment, Unemployment and Migration conducted during 2007- 2008.

## 2. LITERATURE REVIEW

Secondary literatures on factors influencing migration and remittances have been reviewed. At North-East Region, studies on rural out-migration and remittance reveal economic backwardness of the region, socio-political unrest, and educational requirements as the causes of out-migration. Remesh (2012) notified some push factors of rural out-migration from North East Region to urban centres of the rest of India such as backwardness of regions in terms of economic development, lack of adequate facilities for higher education and gainful employment sources along with social tension etc. But migrants have to face different harassments in urban centres which call for proper measures through co-ordinated efforts of civil society organizations and government agencies.

Marchang (2017) found the main causes of outmigration from North East Region to cities such as Bangalore, Delhi are inadequacy of employment opportunities and educational opportunities in North East Region due to mismatch of educational development and employment growth. Assam, being one of north east states experience the phenomenon of rural out-migration along with lesser amount of remittance received by out-migrants' families.

Dutta & Sarmah (2015) identified the significant factors behind rural to urban migration in Assam. Poverty, unemployment and underemployment due to backwardness of agriculture sector, underdeveloped non-farm sector, lack of available jobs etc. are responsible for rural to urban migration. Since

the prospects of getting employment in productive activities in urban areas are high, rural labour force moves to urban areas which creates several issues such as population explosion, housing challenges, excessive pressure on infrastructure, environmental problems etc. The authors suggested for some measures such as development of different infrastructures e.g. pipe borne water, electricity, recreational facilities, better educational facilities etc. in rural sector to prevent excessive rural to urban migration in Assam.

Deori & Mahapatra (2020) conducted a study on factors and impact of out-migration in Dibrugarh district of Assam. The main push factors for out-migration are unemployment, crop failures, lack of gainful employment and the pull factors are prospects of getting better wage and continuous income. Remittances have significant impact in terms of rising farm income, increasing cultivable land, number of livestock, vegetable production and tea land garden. Remittances also contribute to fulfill different household expenditures and mitigate food scarcity caused by damage of crop due to flood and wild animals. The authors pointed out that migration is not economically justified as it creates various issues such as regional imbalance, overcrowded urbanization, growing demand for socio-economic and health infrastructure leading to fiscal problem on public authority in long run. The study suggested some recommendations for creation of small and marginal industries with optimum utilization of agricultural resources and adoption of area specific program for absorbing local skill and unskilled labour force. Though out-migrants receive better earning at the place of destination but their living condition is not congenial.

Kumar & Barman (2017) revealed that majority of those rural youths of Assam migrated and employed in unorganized sector in Hyderabad were found to be satisfied with their earnings but their living condition is not secure as majority of them suffered from health issues such as asthma for being air pollution at work

place and longer working hours per day. Moreover, their housing condition is not healthy for their propensity to save money. The authors suggested for diversification of agriculture from rice centered to remunerative crops, provision of training, support, guidance for skill based occupation, strengthening access for financial service with market information for increasing employment opportunities to control migration.

### Research Gap

Several studies conducted on rural out-migration focus on the determinants and impacts of out-migration at the place of origin and destination. Only limited number of studies considered the phenomenon of remittances due to out-migration. Hence, the present study will be an effort to find out the factors influencing remittances sent by rural out-migrants.

### Objectives

The present study will attempt the following objectives

1. To determine the factors influencing remittances sent by rural out-migrants.
2. To provide some recommendations based on the study.

## 3. RESEARCH METHODOLOGY

### 3.1 Research Design

Secondary or desk research is used in the study. The study is empirical in nature.

### 3.2 State selection criteria

Generally out-migration of north east states is primarily due to employment and study purposes (NSSO, 64<sup>th</sup> round report, 2007-2008). But out-migration for educational purpose records Assam at lowest position among other north east states (NSSO 64<sup>th</sup> round survey). Since majority of out-migrants of Assam for employment purposes are settled within the state or outside the state; hence it creates an inquisitiveness to consider the remittances sent by these out-migrants. The study attempts to consider the determinants of

remittance sent by rural out-migrants in rural Assam.

### 3.3 Sources of Data

The study uses data of 64<sup>th</sup> round Socio-Economic survey conducted by National Sample Survey Organization (NSSO) and Ministry of Statistics and Programme Implementation (MOSPI) in 2007-2008. The schedule 10.2 of the survey contains the particulars of employment, unemployment and migration out of which only the data for out-migration of rural Assam has been used.

### 3.4 Sampling framework

Secondary data for conducting study have been collected and extracted from official website of Ministry of Statistics and Programme Implementation (MOSPI). Originally, data of 64<sup>th</sup> round survey are collected and chosen by using questionnaire and stratified multi-stage sampling method where the first stage units (FSU) include villages recorded in census of 2001 in rural sector and Urban frame survey (UFS) blocks in urban sector with a sample of 1, 25,578 households (79,091 in rural areas and 46,487 in urban areas) containing 5, 72,254 persons (3, 74,294 in rural and 1, 97,960 in urban areas) at all India level. Total sample size of households selected for Assam is 3040 which include 14,273 persons in the NSSO survey. From the sample of total out-migrants of 1427, only rural out-migrant is used as sampling unit for the present study and its sample size is 1016 used in the NSSO survey. The present study is based on sample of 1016 of rural out-migrants which contains records of rural out-migrants from four regions of Assam as classified in the NSSO survey in terms of plain eastern, plain western, Cachar plain and central Brahmaputra plain.

### 3.5 Specification of model for remittance

For the purpose of determining the factors influencing remittance, binary logistic regression model has been used. This model is suitable for a categorical or dichotomous dependent variable with two categories of presence (p) and absence (1-p) of an attribute

which is influenced by a mixture of continuous and categorical predictors. The predicted dependent categorical variable is a function of the probability that a particular subject will be in one of two categories. The natural log transformation of odd ratio ( $\frac{p}{1-p}$ ) is known as logit model. Mathematically, the model is specified as

$$Y = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k + e$$

Where, “Y” denotes dependent dichotomous variable with two categories  $Y = (1, 0)$  i.e. occurrence and non-occurrence of an event, “X” denotes independent variables with “k” predictors in the model,  $\ln\left(\frac{p}{1-p}\right)$  represents logit or log of odd ratio (probability of occurrence of an event (p) to the probability of non-occurrence i.e.  $1-p$ ) “e” denotes residuals in the model. In the present study, dependent dichotomous variable ( $Y = 1$  or  $0$ ) is remittance with categories of “remittance sent by rural out-migrants” ( $Y = 1$ ) and “no remittance sent by out-migrants” ( $Y = 0$ ) to rural households. The predictors used in the model are household type, household size, relation to head of the household, size of land owned, social groups, religion, age, gender wise marital status, general education, technical education, economic activity status, state region.

### 3.6 Rationality for inclusion of variables

The rational behind including the variables in model depends on standard literature on migration and remittance. Household size of out-migrant is included in model based on the study that households with more male member in working age group (15-64) and fewer in dependent age group (below 15 and above 64) are more likely to migrate from rural areas with the hope of earning income and sending remittances (Adams, 1993; Lipton, 1980). The reason for including gender wise marital status of out-migrant is included based on general

view that married women are more likely to migrate compared to married male; married male if not settled at the place of destination with all members of the family, it is more likely to send remittance. Social factors such as religion, social groups are more or less likely to influence out-migration as people from backward class have a tendency to out-migrate to rear/bear the cost of living of their families. Some household characteristics such as household type and land holding are in the category of wealth of household. Since migration involves some initial cost, households with more wealth are likely to produce migrants (Barham & Boucher, 1998; Lanzona, 1998; Olowa & Awoyemi, 2012) and middle wealth households will have the highest probability of producing out-migrants and receiving remittances (Olowa & Awoyemi, 2012). Relation to head of the household is included due to general conception that if the head of household is in dependent age group with having no other earning member except the out-migrated member, remittances need to be sent to the household. Location variable whose push factors are more likely to produce out-migrants and remittance; so four divisions of state region of Assam (Plain western, plain eastern, Cachar plain and Central Brahmaputra Plain) are included in model. The human capital model suggests that more educated people deserve greater employment and expected income-earning possibilities at the place of destination (Schultz, 1982; Todaro, 1970; Olowa & Awoyemi, 2012). Hence human capital like general education and technical education are included in model.

## 4. RESULTS AND DISCUSSION

The results of binary logistic regression model of determinants of remittance have been presented in tabular form and interpretation of different explanatory factors is briefly discussed.

**Determinants of Remittances**

<b>Variables</b>	<b>Coefficients(<math>\beta</math>)</b>	<b>S.E.of Estimate</b>	<b>Wald</b>	<b>Exp.(<math>\beta</math>)/odd ratio</b>
Household Size *HH=1-5 *HH=Above 5@	-0.530 ---	0.219 ---	5.879 ---	0.588** 1.000
Relation to head of HH *Self *Spouse of head *Child *Others@	0.136 1.617 1.375 ---	1.072 1.096 1.029 ---	0.016 2.177 1.785 ---	1.146 5.037 3.956 1.000
Age Group *Below 15 *15-33 *34-52 *Above 52@	3.102 0.220 -1.319 ---	1.048 0.726 0.752 ---	8.753 0.092 3.077 ---	22.237*** 1.246 0.267* 1.000
Gender wise marital status of out-migrants *Unmarried male *Married male *Seperated male *Unmarried female *Married female *Seperated/divorced /widowed female migrant @	-3.959 -4.098 -4.981 1.597 1.122 ---	0.883 0.646 0.766 1.366 0.757 ---	20.087 40.295 42.314 1.368 2.197 ---	0.019*** 0.017*** 0.007*** 4.939 3.070 1.000
Religion *Hindu *Others@	-0.869 ---	0.336 ---	6.692 ---	0.420*** 1.000
Social Groups *Reserved Category *Unreserved Category@	0.675 ---	0.234 ---	8.321 ---	1.964*** 1.000
Houehold Type *Self employment in non-agriculture *Agricultural labour *other labour *self employment in agriculture *others@	1.287 1.389 1.613 1.352 ---	0.372 0.442 0.484 0.307 ---	11.965 9.871 11.109 19.411 ---	3.622*** 4.010*** 5.015*** 3.867*** 1.000

Size of landholding				
*Marginal size (below or equal to 1.00 ha )	1.455	1.552	0.879	4.284
*Medium Size (1.01- 4.00 ha)	1.082	1.547	0.489	2.949
*Above 4.00 ha @	---	---	---	1.000
General Education				
*Illiterate or literate without formal schooling	-0.943	0.361	6.810	0.390***
*Elementary schooling	-0.745	0.325	5.247	0.475**
*Middle stage of schooling	-1.507	0.403	13.989	0.222***
*Secondary stage and above @	---	--	---	1.000
Technical Education				
*Having no technical Education	-20.874	1.641	.000	.000
*Having technical Education@	--	--	--	1.000
Location				
*Plain Eastern	1.384	0.436	10.097	3.991***
* Plain Western	1.611	0.430	14.063	5.009***
*Cachar Plain	1.099	0.494	4.953	3.000***
*Central Brahmaputra Plain@	--	--	--	1.000
<b>Overall Model Evaluation</b>				
Likelihood ratio chi-square	742.251***			
-2log likelihood ratio	650.552			
Pseudo R-square	0.519			
Goodness of fit (Hosmer & Lemeshow test)	4.622Ⓢ			
Number of Observation = 1016				

Source: NSSO 64<sup>th</sup> Round Survey, 2007-2008

\*\*\*, \*\*, \* indicate 1%, 5% & 10% level of significance.

@ indicates the reference category.

Ⓢ indicates the insignificant value which fits the model for data.

The logistic model of determinants of remittance provides a better fit to the data over the null model which is observed from the overall model evaluation in the table. Now, various explanatory factors used in the model have been interpreted to find out their significance in the decision of sending remittance by rural out-migrants.

**a. Location:** Locational variable is a significant factor affecting the probability of sending remittance. State region where from the people tend to migrate is divided into four region. The partial regression coefficients of three regions viz. plain eastern, plain western, Cachar plain are 1.384, 1.611 & 1.099 respectively which correspond to odd ratios of 3.991, 5.009 and 3.000. It can be inferred that rural out-migrants of these three state regions have 299%, 400% and 200% more chance of sending remittance to household relative to rural out-migrants of Central Brahmaputra plain. Plain western region which comprises of seven districts i.e. Dhubri, Barpeta, Bongaigaon, Goalpara, Kamrup, Nalbari and Kokrajhar experience comparatively high poverty ratio in rural areas as compared to rural areas of plain eastern and Cachar plain (NSSO survey, 2004-2005; Assam HDR, 2014) and hence the probability of sending remittance is expected to be highest for rural out-migrants belonging to plain western region.

**b. Household Size:** Household size is a significant determinant of out-migration. The regression coefficient of household of size (1-5) members is -.530 with odd ratio of .588 indicating 41% lesser chance of sending remittance compared to that of household containing more than 5 members.

**c. Household Type-** Household type is a significant factor affecting the propensity to send remittances. Household type is determined based on major source of income (i.e. the source yielding 50% or above of household income) from different economic activities viz.

self employment in agriculture and non-agriculture, agricultural labour and other labour, and the source from which no income derived is termed as others in the survey (NSSO, survey 2007-2008). From the estimated model, it is observed that regression coefficient of self employment in non agriculture, agricultural labour, other labour and self employment in agriculture are 1.287, 1.389, 1.613 and 1.352 which correspond to odd ratios of 3.622, 4.010, 5.015 and 3.867 respectively. It can be interpreted that these four types of households have 262%, 301%, 401% and 286% more propensity to send remittances compared to Households in the type of 'others' category and among the four types of households, out-migrants belonging to household in the type of "other labour" possess maximum propensity to send remittance for ensuring economic support to their families. Next higher propensity to send remittance comes from out-migrants belonging to household of types of 'agricultural labour' and 'self employment in agriculture' because income from agriculture in rural Assam is uncertain due to natural calamities especially recurring flood, lack of infrastructure and funds, low productivity, low land-labour ratio etc. which makes out-migrants to support their families economically through sending remittances. Self employment in non-agriculture type of households are in nonfarm category often experiences uncertain income as education and skill is the most significant factors influencing income from non-farm sector along with per capita landholding and family size (Bhuyan and Mitra, 2018) but majority of out-migrant's household members belong to elementary level of schooling which is expected to be the cause of inadequate income of households. Again households apart from these four categories are in "others" category i.e. households which derive no income from economic activities (NSSO 64<sup>th</sup> round, 2007-2008) and these households depends on past wealth or social security



benefits or derives income less than 50% from each of the above four categories.

**d. Age Group:** Age group is a significant determinant of influencing remittances. The estimated model reveals that age groups are significant except the age group 15-33 and partial regression coefficients of age below 15 and in age group of 34-52 are 3.102 and -1.319 which correspond to odd ratios of 22.237 and 0.267. This indicates that out-migrants below age 15 have high propensity to send remittance than out-migrants in the age above 52. But vulnerability of some rural households in Assam compels its member even in dependent age group to out-migrate in order to provide economic support to families through remittances. Again out-migrants in age group 34-52 are less likely to send remittance compared to out-migrants of age above 52.

**e. General Education:** General education is a significant determinant of sending remittances as higher educational attainment is associated with prospects of better job with high remuneration and congenial working environment. From the estimated model, it is found that the partial regression coefficients of three categories of general education with secondary stage and above as base category are -.943, -.745 and -1.507 with corresponding odd ratios of 0.390, 0.475 and 0.222. It signifies that out-migrants belonging to these levels of education have 61%, 52% and 77% lesser chance of sending remittances compared to out-migrants with education level of secondary schooling and above.

**f. Gender wise Marital Status:** Gender wise marital status is a significant determinant of rural out-migration. It is shown in the table that the regression coefficients of significant categories of this variable- unmarried male, married male, separated male are -3.959, -4.098, -4.981 with corresponding odd ratios of .019, .017 and .007 implying that these out-migrants have 98%, 98% and 99% lesser

chance of sending remittance compared to female out-migrants in the separated or divorced category. Since female is more likely to out-migrate due to social factor (marriage) than that of male, although data shows the number of male out-migrants being higher than female out-migrants (NSSO, 64<sup>th</sup> round, 2007-2008). A study by (Remesh,2012) states that out-migrants of north east states do not send a considerable amount of their earning due to low saving after meeting personal expenditure at the place of destination. The estimated model reveals that male out-migrants are less likely to send remittance compared to divorced or separated female out-migrants.

**g. Social Group:** Social group is a significant factor influencing out-migration. The regression coefficient of reserved category (SC, ST and OBC) is 0.675 and its corresponding odd ratio is 1.964 implying that out-migrants belonging to reserved category have 96% more propensity to send remittance compared to out-migrant from unreserved category.

**h. Religion:** Religion is a significant determinant of out-migration as the regression coefficient of Hindu religion is -0.869 with odd ratio of .420 signifying that Hindu out-migrants have 58% lesser chance of sending remittance compared to out-migrants of other religions. The determinants of rural out-migration which are shown to be insignificant are relation to head of household, land holding, technical education, category of age group of (15-33), married and unmarried female out-migrants.

## 5. CONCLUSION AND RECOMMENDATION

The paper studied the determinants of probability of remittance sending based on rural household data of Assam collected by NSSO with the use of binary logistic regression model. The result shows that demographic factors (household size, age group, gender wise marital status); social factors ( religion, social groups);

household type based on occupation, general education and location are found to have significant influence on the probability of sending remittance to rural household by out-migrants. It is observed that remittance sent to rural household is insignificant to sustain livelihood condition and some out-migrants in economic activity even do not send remittance. Rural sector sustains loss of human capital which is not compensated by smaller amount of remittance as household size of most of out-migrants lies within 1-5 with agriculture as household occupation (NSSO, 64<sup>th</sup> round, 2007-2008) and income from farming is uncertain due to various constraints. Again education level of majority of rural out-migrants includes elementary schooling with no technical skill (NSSO, 64<sup>th</sup> round, 2007-2008). From the view point of reaping demographic dividend under the circumstances of growing working age population of India lasting till 2055, rural young labour force can be productively employed within this sector by strengthening rural development strategies to promote self employment activities especially non-farm employment. The state has implemented several schemes viz. Kalapataru (finance), Chief Minister Self Employment Scheme, CM Special scheme, Handloom and Textiles and recently re-launched scheme Swami Vivekananda Assam Youth Empowerment scheme. Although official record shows better performance of the schemes but studies on these schemes reveal that implementation of these schemes is not impressive (Konch, 2014). It can be recommended for emphasizing on the programmes of developing skill and training of rural youth at free cost; checking the functioning of middlemen in implementing rural development schemes; developing rural infrastructure to generate positive externality for rural youth; publicity of products through social media, workshop and seminar etc. in order to turn rural out-migrants into wealth of rural economy.

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