

# Intensity Of Migration And Its Determinants In Assam

Mausumi das, Aditya Gogoi

**Abstract:** The concept of "Intensity of Migration" is used as a measure to compare migration among the different region. In the general definition of migration, it only implies the changes in the usual place of residence of an individual or a group of people. It does not consider the frequency of migration of a particular place. The concept of the intensity of migration talks about the frequency of migration. In this study, we have discussed the concept and various household-level determinants of the intensity of Migration. The study has done particularly for Assam with the help of NSSO data (64th round). From the study, it has found that land availability, the reason for migration, monthly per capita consumption expenditure, social group and religion have a significant impact on the intensity of migration. So the government should make policy to provide the employment opportunity in accordance with their intensity of migration.

**Key words:** Intensity of migration, migration, movement, MPCE decile class, poverty, transition

## I. INTRODUCTION:

Migration is considered as the third component of population growth after fertility and mortality. People generally move from one region to another region to get better inhabitant. Fertility and mortality occur within a biological context whereas migration occurs because of some socio-economic, political and geographical factors (Bhagat, 2016). Migration is an adjustment process adopted by the people through the substitution of their place of residence with another location for better inhabitation (Brown & Moore, 1970). It only implies the changes of usual place of residence by an individual or a group of people over some time. It does not put limit on the time interval or distance over which the changes can take place. Again this definition does not help to compare the migration across the country. So a unique measure is needed to compare the migration across the country. The concept of Migration intensity helps to compare the migration across the region or country (Rees et al, 2000). Imhoff and Keilman (1991) used the concept of migration intensity to measure the frequency with which a population engages in migration. According to them intensity concept encompasses both the concept of transition probabilities and movement rates. Bell et al (2015) also used the concept to intensity of migration to measure the propensity to change one's place of usual residence within a country. In this context, it is important to study about the concept and various determinants of intensity of migration along with different aspect of migration. The natures of migration of north-eastern people are comparatively different from the other parts of India. Reimeingam (2017) has observed that most of the migrants from the north-eastern region are youth and they have migrated for better employment and education. Due to the availability of natural resources, migrants from the northeastern region are economically better than the migrants from other parts of India. Assam has also witnessed the incidence of out-migration for a better job opportunity. Generally, people have been migrating from Assam to Bangalore, Kerala, Tamilnadu to get the better job opportunity. There is a dearth of studies in Assam, particularly regarding the determinants of intensity of migration in Assam. With this backdrop, this study aims to fulfil the gap by analyzing the determinants of intensity of migration through using the data of the National Sample Survey Organization (NSSO) 64th round.

## II. REVIEW OF LITERATURE:

The concept of "intensity of migration" has been defined by various scholars differently. Some scholar describes it in macro-level, and some have expressed in micro or household level. Prakash (1998) explains the concept of "intensity of migration" as the number of migrants per thousands of people that migrated from their place of origin. Perakis (2011) also defined the intensity of migration as the ratio of a number of migrant populations to total population in a particular geographical location. Again as per the report of the working group on migration, India (2017), the intensity of labor migration is defined as the ratio of rural out-migrants to the rural male working population at the district level. Rajan (2013) has also computed the intensity of migration by using the NSSO data. According to him, migration intensity defined as the total number of internal migrants per thousand given a period at the state level in India. Above all, these definitions based on macro as well as meso level. Against all these definitions, some scholars also developed the concept of "intensity of migration" at the household level. Akhter and Bauer (2014) have defined as the intensity of labor migration as the ratio of the number of migrants to family size. The determinants of migration participation and determinants of migration may not be the same. Pradhan and Narayanan (2019) studied the determinants of the intensity of migration of the two semi-arid villages from Telangana and Maharashtra. They found that number of a family member, ownership of landholding negatively effect on the intensity of migration of the household and the dependency ratio (proportion of non-working age member to working-age member) positively effect on the intensity of the migration. The age of the household heads has a U shaped relationship with the intensity of migration. Again, the share of remittances to the household's income has a positive relationship. Although determinants are more or less the same in all studies, we have to show how the researcher defines the concept of the intensity of migration. Akhter and Bauer (2014) also studied the determinants of intensity at the household level. They found that the age of the household head and the number of economically adult males positively effect on the intensity of migration. Again the number of young dependent members of the household, number of higher educated members in the household (year of schooling above 10), and farm size negatively affect the intensity of migration of

the household. In the above existing literature, it has found that the effects of various factors of migration are not the same in all studies. This is maybe due to the inconsistency in the definition of migration in all existing studies.

The following objective drives the present study

1. To examine determinants of intensity of migration in Assam.

To test the various determinants of intensity of migration in Assam, the study use the ratio of number of migrants and total number of members of the household as the intensity of migration of that particular household.

### III. METHODOLOGY:

#### A. Data type, Data source

The study is based on secondary data. Secondary data are used from NSSO 64<sup>th</sup> round.

#### B. Line of analysis

In the study ordinary least square methods is used to analyses the various determinants of intensity of migration. Various household characteristic like land possess, religion, social group, Monthly per capita consumption expenditure can effect on intensity of migration. So in this study the marginal effect of these factors are analyzed through multiple linear regression models. The multiple linear regression is given as follows.

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \mu_i$$

Here  $i=1, \dots, n$

Where, dependent variable (Y) is the intensity of migration. Independent variables are

$X_1$ =Reason for migration of the household's member. It is a categorical variable. The categories are employment reason, studies, forced migration marriage and other. Here employment reasons are taken as a reference category.

$X_2$ =Social groups of the household. It is categorized as ST, SC, OBC and others. Here ST are categorized as reference category.

$X_3$ =MPCE quintile group. Household are divided into five quintile groups according to their monthly per capita consumption expenditure (MPCE). Here first quintile is taken as the reference category.

$X_4$ =Land possess code. Here household are divided into five categories according to their land availability. These are marginal land holder, small land holder, semi-medium land holder, medium land holder and large and holder. Here marginal holders are taken as reference category.

$X_5$ =religion of the household. These are also categorized in there groups i.e. Hindu, Muslim and others. People belongs to Hinduism are taken as reference category.

$\mu_i$ =Error term of the regression model.

$\beta_0$ =Intercept of the regression coefficient

$\beta_1, \dots, \beta_5$ =Coefficients of independents variable.

### IV. RESULTS OF DISCUSSION

#### A. Estimation of the model

The existence of heteroscedasticity is a major concern in the application of regression analysis, as it can invalidate the statistical test of significance. In the above model chi-squared value is significant at 1% level so the null hypothesis is rejected i.e. heteroscedasticity is present in the model. So for estimation the heteroscedasticity should be removed to find an unbiased estimator. The following

table shows the estimation after correcting the heteroscedasticity by robust test.

Dependent variable: Intensity of migration		
Methods: Multiple Ordinary Least square		
Sample: 1427		
Variable	Coefficient	t-statistic
Social Group		
ST		
SC	0.020	4.53***
OBC	0.047	12.18***
Others	0.080	20.61***
MPCE		
First quintile	-0.132	-40.93***
Second quintile	-0.170	-53.68***
Third quintile	-0.187	-58.71***
Fourth quintile	-0.218	-69.44***
Fifth quintile		
Land-posses		
Marginal land holder		
Small land holder		
Semi-medium holder	-0.003	-0.87
holder	-0.007	-2.10**
Medium holder	-0.004	-1.21
Large land holder	0.033	4.74***
Religion		
Hinduism		
Muslim	-0.045	-15.45***
Others	0.046	10.70***
Constant	0.457	91.10***
R-square	0.26	
F Statistic		680.22***

\*, \*\* and \*\*\* denotes significance level at 10%, 5% and 1% significance level respectively.

#### B. Explanation and interpretation of the results.

From the above table it has found that the value of R square is 0.26. This implies that the model explains about 50% of the variability in the response. Again in case of overall significance of the regression model, the null hypothesis model is that all parameter are simultaneously zero. To test the overall significance, 'F' statistics have to be studied and in the study the 'F' statistic is significant at 1% level of significance. That is why we reject the null hypothesis. Thus we can say the variables which are adopted in the multiple linear regression model are important determinants. In the above studies it has found that the intensity of migration is lesser among those people who are migrate for employment than those people who are migrate for studies, marriage, migrate with family and other reasons. Here the migration for studies and others reasons are significant at 1% level of significance where the migration for marriage and family moved are significant at 5% level of significance. In case of Hindu people the

intensity of migration is significantly higher than the Muslim peoples whereas the intensity of migration is greater for other category than Hindu people. If we saw the intensity of migration among people in accordance with the social group then it has found that migration intensity among ST peoples are less than people from SC, OBC and other category. Again the coefficient for others people are higher than SC and OBC's. Migration intensity also related with the poverty. To study the impact of poverty, in the study MPCE is taken as a proxy. Here it has found that bottom 20 percentile populations in terms of MPCE have more intensity of migration than other people. Again it has also found that top 20 percent of the population has less intensity of migration than other groups of people. So from the above study it has found that poor people have more intensity of migration than the rich people. Land availability is also an important determinant of intensity of migration. The intensity of migration is less among the semi-medium land holder than the marginal farmers. Again the intensity of migration is higher among the large farmer than marginal farmer. Large farmer can afford the initial migration cost than the marginal farmer so they can easily migrate. Again in most of the study it has found that families with land availability also have higher education. So they can easily migrate and established themselves.

V. Conclusion: The study finds that almost all factors have some effect on intensity of migration. In the above discussion it is found that the intensity of migration is vary according to the caste and social groups of the household. Again land holding size also effect on the intensity of migration. It has found that the Larger land holding positively effect on the intensity of migration which is the contradiction of another study which was done by (Pradhan and Narayanan, 2019). Poverty also positively effect on the intensity of migration. So government should adopt effective policy to provide employment to this migrant people.

VI. Future Scope:

In the study all age group are taken to analyze the result. Actually Pradhan and Narayanan(2019) suggest to take the working age population. Due to data unavailability we take all age group. In future we will take only working age population in our study.

## REFERENCES:

- [1] Akhter, S., & Bauer, S. (2014). Household level determinants of rural-urban migration in Bangladesh. *International Journal of Social, Human Science and Engineering*, 8(1), 24-27.
- [2] Bell, M., Charles-Edwards, E., Ueffing, P., Stillwell, J., Kupiszewski, M., & Kupiszewska, D. (2015). Internal migration and development: comparing migration intensities around the world. *Population and Development Review*, 41(1), 33-58.
- [3] Bhagat, R. B. (2016). Nature of migration and its contribution to India's urbanization. In D. K. Mishra, *Internal migration in contemporary india* (pp. 53-75). New Delhi: 2016.
- [4] Brown, L. A., & Moore, E. G. (1970). The intra urban migration process: A perspective.

*Geografiska annaler: Series B, Human Geography*, 52 (1), 1-13.

- [5] Perakis, S. M. (2011). The short and long run effects of migration and remittances: Some evidence from Northern Mali (No. 321-2016-10840).
- [6] Pradhan, K. C., & Narayanan, K. (2019). Intensity of labour migration and its determinants: insights from Indian semi-arid villages. *Asia-Pacific Journal of Regional Science*, 3(3), 955-994.
- [7] Prakash, B. A. (1998). Gulf migration and its economic impact: The Kerala experience. *Economic and Political Weekly*, 3209-3213.
- [8] Rees, P., Bell, M., Duke-Williams, O., & Blake, M. (2000). Problems and solutions in the measurement of migration intensities: Australia and Britain compared. *Population Studies*, 54(2), 207-222.
- [9] Reimeingam, M. (2017). Out-migration from north eastern region to cities: unemployment, employability and job aspiration. *Journal of Economic and Social Development*, 13 (2), 43-53.
- [10] Van Imhoff, E., & Keilman, N. (2000). On the quantum and tempo of fertility: Comment. *Population and development review*, 26(3), 549-553.