

## Income Inequalities among Marginal Non-Migrated and Migrated Tribal Households

Beby Kumari, Research Scholar,

Department of Economics, Sant Baba Bhag Singh University, Jalandhar Punjab

Dr. Mohan Lal, Assistant Professor of Economics,

Department of Economics, Sant Baba Bhag Singh University, Jalandhar Punjab

### ABSTRACT

The present empirical study measures the inequalities of income among the marginal non-migrated and migrated tribal gaddi households of district Chamba and Kangra. For this purpose, the sample of two hundred marginal households were taken, hundred from Bharmour development block of district Chamba and hundred from Dharamshala and Rait Development block of district Kangra. The marginal households are those who have less than one hectare of land. The collection of data was done through schedule and personal interview method. The extent of income inequalities among non-migrated and migrated tribal gaddi households has measured by Gini-coefficient and presented through Lorenz curve. The inequalities of income between the marginal non-migrated and migrated tribal households were found low. The Gini-coefficient for the marginal non-migrated tribal households was 0.28. Where, the value of Gini-coefficient for marginal migrated tribal households was 0.25. Which shows that the inequalities of income in marginal non-migrated tribal households were slightly higher than the inequalities of income among the marginal migrated tribal households.

**Keywords:** Inequalities, Income, Migrated, Tribal, Household, Gini-coefficient.

### 1. Introduction

The migration is one of the main features of India's social and economic life, with millions of people migrate within the nation in search of better earning opportunities and education (Varughese, R., and Mukherjee, S. 2024). In the world India has the second largest population of the tribal communities. The country schedule tribes comprise 8.6 percent of the total population (Census of India, 2011). Tribal communities generally concentrated in the area which is geographically isolated, dense forests and high altitude (Xaxa, 2014). There are many push and pull factors which force tribal communities to migrate. The factors like poverty, lack of basic and modern amenities, harsh weather conditions, less medical and educational facilities etc., are the push factors for tribal migration. On the other hand, better and modern amenities, better employment opportunities, better medical and educational facilities etc., are the pull factors to the migration of tribal communities. Keeping in the view of all these factors, the tribal peoples extensive migrate for their betterment and socio-economic change (Shah, A., and Lerche, J. 2020). There are two kinds of migration one is seasonal and other is permanent. When permanent migration occurs, there becomes two categories of tribals one is non-migrated and second is migrated tribals. With the passage of time there become the disparities in their level of living, occupation structure, educational level and income.

The present study is based on the permanent migration of tribals from Bharmour development block of district Chamba to Dharamshala and Rait development block of district Kangra. The sample size of two hundred (n=200) from marginal households, who have less

than one hectare of land, hundred from each district have been used. The primary data from these tribal households on income from various sources collected through in personal interview methods.

## 2. Methodology

The present study is based on the primary data collected from the Bharmour development block of district Chamba and Dharamshala and Rait development block of district Kangra has purely quantitative research in nature. The result in the present study has been estimated by applying the following statistical tools.

### 2.1 Lorenz Curve

Income inequalities among different groups of tribal households were examined with the help of Lorenz Curve. In Lorenz Curve technique, the size of items and the frequencies are both cumulated and taking the total as 100, percentage, are calculated for the various cumulated values. These percentages will be plotted on a graph paper.

### 2.2 Gini-Coefficient

$$\text{Ginni Coefficient} = \frac{\text{Area between the lorenz curve and diagonal}}{\text{Total Area under diagonal}}$$

The value of the Gini-coefficient for the distribution of sample household's income has been worked out with the help of following formula:

$$G(Y) = 1 + (1/n) - (2/n^2 z) \sum_{i=1}^n (n + 1 - i) y_i$$

Where,

G(Y) = Gini-coefficient of the income distribution of sample households.

n = population size

Z = mean income

y<sub>i</sub> = income of the i<sup>th</sup> person

## 3. Result and Discussion

In any society socioeconomic conditions are largely determined by the income of its households. Inequalities in income causes to differences in level of living, quality of life, access to educational and health facilities. Higher the income inequalities, higher will be the variations socioeconomic conditions and level of living.

### 3.1 Monthly Income of the Marginal Non-Migrated Households

The distributions of monthly household income of non-migrated tribal gaddi household are shown in Table 1. Out of the total sample of one hundred households, there were eleven households whose monthly income was less than ten thousand and the average income was eight thousand seven hundred forty. The seventeen households have monthly income between ten to twenty thousand and have fifteen thousand sixty-one rupees average income. The nineteen households have monthly income between twenty to thirty thousand with average income of 24.34 thousand per households.

**Table 1**  
**Monthly Household wise Income of Marginal Non-Migrated Tribal Gaddi Households**  
**(000')**

Sr. No.	Class	No. of Households	Income Per Household	Monthly Household Income	Average Family Size	No. of Persons
1	0-10	11	8.74	96.18	6.8	74.8
2	10-20	17	15.61	265.49	6.8	115.6
3	20-30	19	24.34	462.48	6.8	129.2
4	30-40	24	32.25	774.05	6.8	163.2
5	40-50	14	43.62	610.78	6.8	95.2
6	50-60	11	54.57	600.29	6.8	74.8
7	60 <	4	62.11	248.45	6.8	27.2

**Source: Primary Survey.**

The twenty-four households have monthly income between thirty to forty thousand per month with average income 32.25 thousand per households. The fourteen households have monthly income between forty to fifty thousand per month with average income of 43.62 thousand per households. The eleven households have monthly income between fifty to sixty thousand per month with average income 54.57 thousand per households. Only four households have the monthly income more than sixty thousand rupees with average income of 62.11 thousand per households.

**Table 2**  
**Distribution Pattern of Monthly Income of Marginal Non-Migrated Tribal Gaddi Households**  
**(000')**

Sr. No.	Class	Monthly Households Income	Cumulative Income	Cumulative Income Percentage	Number of Persons	Cumulative Persons	Cumulative Persons Percentage
1	0-10	96.18	96.18	3.15	74.8	74.8	11
2	10-20	265.49	361.68	11.83	115.6	190.4	28
3	20-30	462.48	824.16	26.95	129.2	319.6	47
4	30-40	774.05	1598.22	52.27	163.2	482.8	71
5	40-50	610.78	2208.99	72.24	95.2	578	85
6	50-60	600.29	2809.29	91.87	74.8	652.8	96
7	60 <	248.46	3057.75	100	27.2	680	100

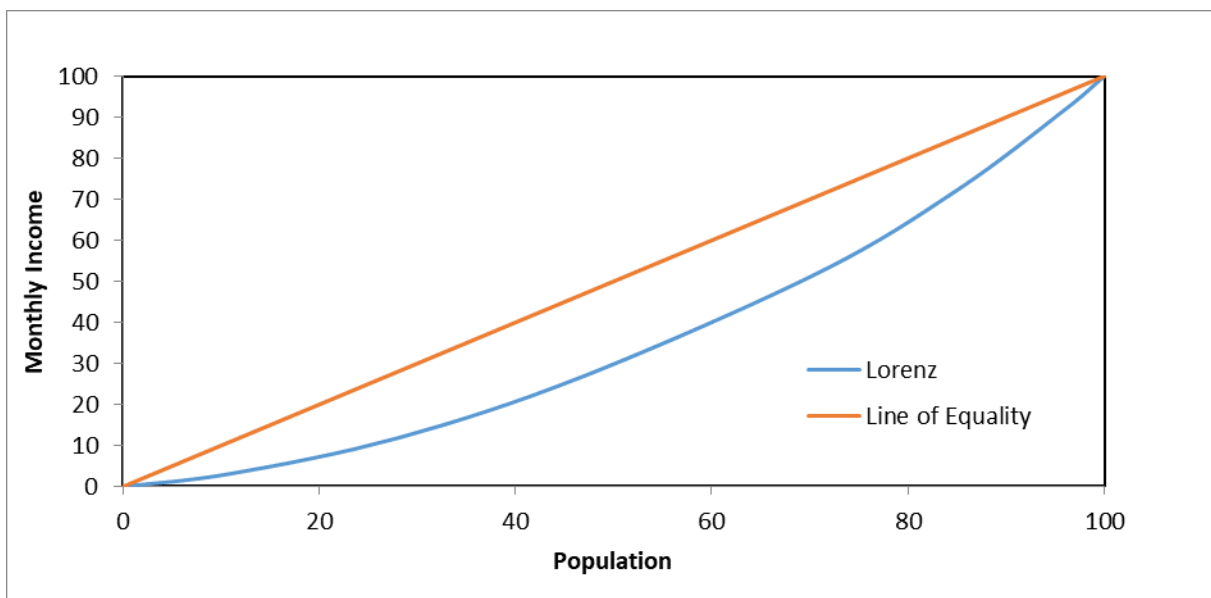
**Source: Author's Calculations**

Table 2 displays the distribution patterns of the total monthly income of marginal non-migrated tribal households with cumulative income and cumulative income percentage. This table also shows the number of persons in each income group with cumulative persons and cumulative persons percentage. The households who have income less than then thousand have total monthly income of 96.18 thousand rupees. This class have only 3.15 percent share

of the total income. While focusing on the cumulative person percentage, the eleven percent people have only 3.15 percent share of total income. The households who have income between ten to twenty thousand have total monthly income of 265.49 thousand and these two classes have cumulative income of 361.48 thousand. These two classes have 11.83 percent share out of total income. While focusing on the cumulative person percentage, the twenty eight percent people have 11.83 percent share of total income.

The households who have income between twenty to thirty thousand have total monthly income of 462.48 thousand and this class including all previous classes have cumulative income of 824.16 thousand. This class including all previous classes have 26.95 percent share out of total income. While focusing on the cumulative person percentage, the forty seven percent people have 26.95 percent share of total income. The households with income between thirty to forty thousand have total monthly income of 774.05 thousand and this class including all previous classes have cumulative income of 1598.22 thousand. This class including all previous classes have 52.27 percent share out of total income. While focusing on the cumulative person percentage, the seventy one percent people have 52.27 percent share of total income.

**Figure 1**  
**Lorenz Curve of Income Distribution for Marginal Non-Migrated Tribal Gaddi Households**



The households with income between forty to fifty thousand have total monthly income of 610.78 thousand and this class including all previous classes have cumulative income of 2208.99 thousand. This class including all previous classes have 72.24 percent share out of total income. While focusing on the cumulative person percentage, the eighty five percent people have 72.24 percent share of total income. The households with income between fifty to sixty thousand have total monthly income of 600.29 thousand and this class including all previous classes have cumulative income of 2809.29 thousand. This class including all previous classes have 91.87 percent share out of total income. While focusing on the cumulative person percentage, the ninety six percent people have 91.87 percent share of total income. The households who have income more than sixty thousand have total monthly income of 248.46 thousand and this class including all previous classes have cumulative

income of 3057.75 thousand. The value of Gini-coefficient for the marginal non-migrated tribal gaddi household worked out 0.28.

The cumulated percentage of the household income as well as the cumulated persons percentage of marginal non-migrated tribal gaddi households when plotted on the graph paper provides the resultant shape of as it is evident from Figure 1. This figure indicates that among marginal non-migrated tribal households the value of Gini-coefficient has been calculated i.e. 0.28. Which showed that the Lorenz Curve is closer to the line of equal distribution with moderate value of Gini-coefficient. It revealed that among the marginal non-migrated gaddi households have moderate income inequalities.

### 3.2 Monthly Households Income of the Marginal Migrated Households

The monthly household wise income of marginal migrated tribal household has been represented in Table 3. Table shows that out of hundred marginal migrated households nine households have the income less than ten thousand rupees and their monthly average income has come out rupees 9.4 thousand.

**Table 3**  
**Monthly Household wise Income of Marginal Migrated Tribal Gaddi Households**  
 (000')

Sr. No.	Class	No. of Households	Income Per Household	Monthly Household Income	Average Family Size	No. of Persons
1	0-10	9	9.4	84.15	5.8	52.2
2	10-20	12	16.8	201.89	5.8	69.6
3	20-30	19	26.5	503.94	5.8	110.2
4	30-40	25	37.4	934.02	5.8	145
5	40-50	13	45.3	588.42	5.8	75.4
6	50-60	12	55.4	665.16	5.8	69.6
7	60 <	10	64.4	644.13	5.8	58

**Source: Primary Survey.**

Whereas, twelve households have the monthly income between ten to twenty thousand rupees and their monthly average income has come out rupees 16.8 thousand. The nineteen households have the income between twenty to thirty thousand rupees and their monthly average income is 26.5 thousand. The twenty-five households have the income between thirty and forty thousand and their monthly average income have 37.4 thousand rupees. The thirteen households have the income between forty and fifty thousand and their monthly average income calculated 45.3 thousand rupees. Whereas, twelve households have the income between fifty to sixty thousand rupees and their monthly average income has come out 55.4 thousand rupees. Only ten households found among non-migrated household who has the income above sixty thousand rupees and their monthly household income lies 64.4 thousand rupees.

Table 4 shows the distribution patterns of the total monthly income of marginal migrated tribal households with cumulative income and cumulative income percentage. This table also display the number of persons in each income group with cumulative persons and cumulative persons percentage. The households who have income less than ten thousand have total

monthly income of 84.15 thousand rupees. This class have only 2.32 percent share of the total income. While focusing on the cumulative person percentage, the nine percent people have only 2.32 percent share of total income. The households who have income between ten to twenty thousand have total monthly income of 201.89 thousand and these two classes have cumulative income of 286.05 thousand.

**Table 4**  
**Pattern of Income Distribution among Marginal Migrated Tribal Gaddi Households**  
**(000')**

Sr. No.	Class	Monthly Households Income	Cumulative Income	Cumulative Income Percentage	Number of Persons	Cumulative Persons	Cumulative Persons Percentage
1	0-10	84.15	84.15	2.32	52.2	52.2	9
2	10-20	201.89	286.05	7.89	69.6	121.8	21
3	20-30	503.94	789.99	21.81	110.2	232	40
4	30-40	934.02	1724.01	47.61	145	377	65
5	40-50	588.42	2312.43	63.85	75.4	452.4	78
6	50-60	665.16	2977.59	82.21	69.6	522	90
7	60 <	644.13	3621.72	100	58	580	100

**Source: Authors' Calculations.**

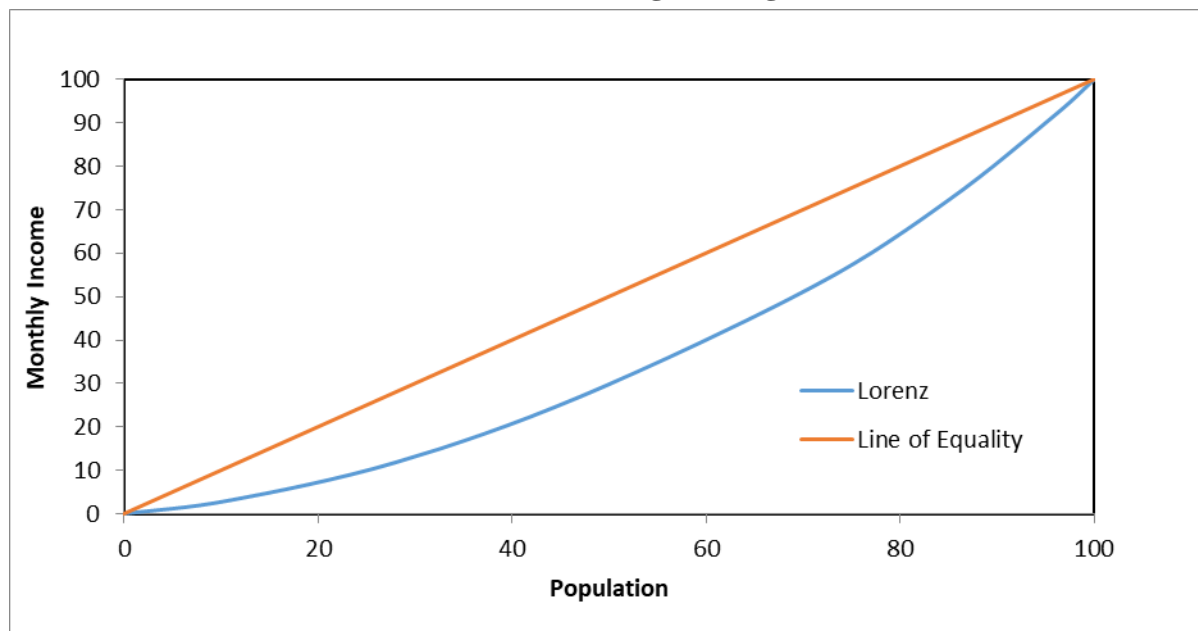
These two classes have 7.89 percent share out of total income. While focusing on the cumulative person percentage, the twenty one percent people have 7.89 percent share of total income. Households who have income between twenty to thirty thousand have total monthly income of 503.94 thousand and this class including all previous classes have cumulative income of 789.99 thousand. This class including all previous classes have 21.81 percent share out of total income. While focusing on the cumulative person percentage, the forty percent people have 21.81 percent share of total income. The households with income between thirty to forty thousand have total monthly income of 934.02 thousand and this class including all previous classes have cumulative income of 1724.01 thousand. This class including all previous classes have 47.61 percent share out of total income. While focusing on the cumulative person percentage, the sixty five percent people have 47.61 percent share of total income.

The households with income between forty to fifty thousand have total monthly income of 588.42 thousand and this class including all previous classes have cumulative income of 2312.43 thousand. This class including all previous classes have 63.85 percent share out of total income. While focusing on the cumulative person percentage, the seventy eight percent people have 63.85 percent share of total income. The households with income between fifty to sixty thousand have total monthly income of 665.16 thousand and this class including all previous classes have cumulative income of 2977.59 thousand. This class including all previous classes have 82.21 percent share out of total income. While focusing on the cumulative person percentage, the ninety percent people have 82.21 percent share of total income. The households who have income more than sixty thousand have total monthly income of 644.13 thousand and this class including all previous classes have cumulative

income of 3621.72 thousand. The value of Gini-coefficient for the marginal non-migrated tribal gaddi household worked out 0.25.

Figure 2

### Lorenz Curve of Income Distribution for Marginal Migrated Tribal Gaddi Households



The cumulated percentage of the household income as well as the cumulated persons percentage of migrated tribal marginal households when plotted on the graph paper provides the resultant shape of as it is evident from Figure 2. This figure clearly indicates that among migrated tribal marginal households the value of Gini-coefficient has been calculated 0.25, which showed that the Lorenz Curve is closer to the line of equal distribution with smaller value of Gini-coefficient for migrated tribal gaddi households.

#### 4. Conclusion

The inequalities of income between the marginal non-migrated and migrated tribal households were found low. The Gini-coefficient for the marginal non-migrated tribal households was 0.28, whereas the value of Gini-coefficient for marginal migrated tribal households was 0.25. Which shows that the inequalities of income in marginal non-migrated tribal households were slightly higher than the inequalities of income among the marginal migrated tribal households. The average family size among the non-migrated tribal gaddi households is 6.8 person per household. While, in case of migrated tribal households it is 5.8 person per household. The less inequalities of income with smaller size of household have more significance than the higher inequalities of income with large household size.

#### References

- Ballabh, V., & Batra, P. (2015). Socio-economic transformations of the tribals in central India: Lessons and experiences. *Indian Journal of Agricultural Economics*, 70(3), 272-282.
- Bhagat, R. B. (2017). Migration, gender and right to the city: the Indian context. *Economic and Political Weekly*, 35-40.
- Census of India. (2011). *Primary Census Abstract for Scheduled Tribes*. Office of the Registrar General and Census Commissioner, Government of India.

- Choudhary, S. K. (1989). Tribal development in India Problem and Prospects. *Indian Anthropologist*, 19 (1/2), 108-109.
- De Haas, H. (2010). Migration and development: A theoretical perspective. *International Migration Review*, 44(1), 227-26
- Dhurjati Mukherjee (2010). Tribal Displacement their Right to Livelihood Cannot be Denied, *Kurukshetra*, Vol.42, pp.50-52
- D'Souza (1975), "Social Inequalities and Development in India", *Economic and Political Weekly*, 10(19), 770-773.
- Gaikwad, A., et al. (2020). Migration Behaviour of Tribal Youth. *Gujrat Journal of Extension Education*, 13(1), 190-196.
- Gregory, S., & Gregory, J. (2007). Role of education in tribal development: Issues and concerns. *Social Action*, 27(January- March), 14-26.
- Jana, N. C. and Ghosh, P. K. (2015). Socio-Economic Condition and quality of life in Tribal Areas of Orissa with Special Reference to Mayurbhanj District. *Space and Culture*, 3(2), 25-41.
- Jha, Vikas (2005). Migration of Orissa's Tribal Women. *Economic and Political Weekly*, April 9, pp. 1495-1496.
- Kumar et. al. (2017). The Gaddi Scheduled Tribe of Jammu and Kashmir: A socio-cultural overview. *Journal of Acharya Narendra Dev Research Institute*. 24, 18-23.
- Malhotra, A. et al. 2022. Puhals: Outlining the dynamics of labor and Herding among the Gaddi Pastoralists of India. *Pastoralism: Research, Policy and Practice*, 12(1), 2-13.
- Mistri & Sardar (2023). Tribal Migration in Indian Censuses: A Neglected and Litigated Area. *Migration Letters*, 20 (2), 123-135.
- Negi, Dandub and E. P Abdul Azeez (2022). Impacts of Development Induced Displacement on Tribal Communities of India: An Integrative Review. *Asia Pacific Social Science Review*, 22(2), 50-62.
- Panda, S., & Majumder, A. (2013). A review of rural development programmes in India. *International Journal of Research in Sociology and Social Anthropology*, 1(2), 37-40.
- Pattanaik, B. K. and Kulwinder Singh (2005). Socio-Economic conditions of Gaddi tribals: Findings from a survey in Kangra district, Himachal Pradesh. *Social Change*, 35(2), 13-24.
- Shah, A., & Lerche, J. (2020). Migration and the invisible economies of care: Production, social reproduction and seasonal migrant labour in India. *Transactions of the Institute of British Geographers*. <https://doi.org/10.1111/tran.12401>
- Varughese, R., & Mukherjee, S. (2024). Deciphering Tribal Migration through the Pages of Contemporary Literary Narratives in Translation. *World Journal of English Language*. <https://doi.org/10.5430/wjel.v14n4p525>
- Xaxa, V. (2014). *Report of the High-Level Committee on Socio-Economic, Health and Educational Status of Tribal Communities of India*. Ministry of Tribal Affairs, Government of India.