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Consumption Expenditure Inequalities among Non-Migrated and Migrated Marginal Tribal Farmers

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Abstract
The present empirical study focuses on the variations in the consumption expenditure among the marginal non-migrated and migrated farmer's families. The non-migrated farmer families referred to those who have permanent settlement in Bharmour development block of district Chamba and migrated families referred to those who have settlement in Rait and Dharamshala development blocks of Kangra District. The sample of 200 farmer families 100 families from each district was taken. To know the variation Gini-coefficient and Lorenz Curve was used. The study found that the variations in the consumption expenditure among non-migrated and migrated marginal farmer families found majorly in the first consumption expenditure class that is less than five hundred. Twenty-one families of marginal non-migrated farmers lie in this class while only ten families of marginal migrated farmer found in this class. While in all other categories of consumption expenditure class there was a minor difference. There are slightly more inequalities in consumption expenditure in Kangra as compare to Bharmour.

I. Introduction

The traditional livelihood practice that is transhumance is followed by the many human communities in the world (Basin, 2013). The Gaddis with their ancient homeland Brahmpura, prehistoric capital of Chamba province. Now known as Bharmour were following the practice of transhumance. Because of heavy snow fall in winters, adverse climatic conditions, limited land for agriculture and grazing activities, high mountain range and low connectivity. This tribe adopted a nomadic pastoral lifestyle. Initially this was transhumance with their goats and sheep (Phillimore, 1981) but with the passage of time and generally in the mid-20th century these Gaddi's began permanent settlement in neighboring states and districts like Punjab, Jammu and Kangra, due to better opportunities in every field like, better agriculture land, climate conditions, healthcare facilities, education and employment opportunities etc. The majority of Gaddis leaves their ancestral profession and settled in agriculture and other activities like jobs and business etc., because of more challenging nature of the profession (Aryal et al., 2018; Ramparasad et al., 2020). There become two categories of Gaddis that is non-migrated, who live in Bharmour and migrated, who live in Kangra and plains both categories have difference in the level of living, income level, consumption level and employment opportunities between migrated and non-migrated Gaddis. The present study was conducted in the Bharmour development block of district Chamba, Rait and Dharamshala development block of district Kangra to find the income and consumption inequalities in these two groups. The sample size of two hundred (n=200) from marginal farmers who have less than one hectare of land, 100 from each district has been used. The marginal farmers are those farmers who have less than one hectare of land. The primary data from these farmers on consumption expenditure on both food and non-food items collected through in personal interview method. The consumer unit per family in non-migrated farmers was 5.4 and in migrated family was 4.66; the average family size was 6.8 and 5.8 respectively.

II. Methodology

The present empirical study is quantitative research and is based on primary data collected from the study area that is Bharmour development block in district Chamba and Rait and Dharamshala development block in district Kangra. The results in the present study have been calculated by applying the following statistical tools:

II.1 Lorenz Curve

Consumption expenditure inequalities among different groups of farmer families 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.

II.2 Gini-coefficient

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

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

$$G(C) = 1 + (1/n) - (2/n^2\ \ z)\sum_{i=1}^{n}(n + 1 - i)\,Ci$$

Where,
G (C) = Gini-coefficient of the Consumer expenditure distribution.
Z = mean consumption expenditure
n = total consumer units
Ci = households' expenditure of the i^{th} consumer unit.

III. Result and Discussion

Disparities in consumption expenditure led to the differences in the standard of living and the quality of life. Higher the expenditure on consumption higher the quality of life and vice versa. This section can be divided into two parts; the pattern of monthly consumption expenditure of non-migrated farmers and the pattern of monthly consumption expenditure of migrated farmers.

III. 1 Monthly Consumption Expenditure of the Marginal Non-Migrated Farmers

Table 1 states the monthly consumption expenditure of family wise marginal non-migrated farmer. It is clearly visible that out of one hundred farmer's families twenty one families are spending averagely 390.52 rupees per consumer unit.

Table 1
Non-Migrated Marginal Farmers Family Wise Consumption Expenditure

Sr. No.	Class	Farmer Families	Consumption Expenditure Per Consumer Unit	Monthly Families Consumption Expenditure	No. of Persons
1	0-500	21	390.52	44284.97	142.8
2	500-1000	20	717.31	77469.48	136
3	1000-1500	18	1102.38	107151.3	122.4
4	1500-2000	14	1676.15	126716.9	95.2
5	2000-2500	10	2217.21	119729.3	68
6	2500-3000	9	2612.39	126962.2	61.2
7	3000 <	8	3232.41	139640.1	54.4

Source: Primary Data

There are twenty families who are averagely making consumption expenditure 717.31 rupees per consumer units. The eighteen families are spending 1102.38 rupees per consumer unit. Fourteen families are spending 1676.15 rupees per consumer unit on consumption.
The ten families are making consumption expenditure of rupees 2217.21 per consumer unit. Rupees 2612.39 spent on consumption expenditure per consumer unit by nine farmer non migrated families. There are only eight families who spend rupees 3232.41 rupees per consumer unit on consumption expenditure per month. From hundred family's majority of the families are spending between the one thousand to three thousand per consumer units per month.

Table 2
Monthly Consumption Expenditure of the Marginal Non-Migrated Farmers

Sr. No.	Class	Monthly Households Consumption Expenditure	Cumulative Consumption Expenditure	Cumulative Expenditure Percentage	No. of Persons	Cumulative Persons	Cumulative Person Percentage
1	0-500	44284.97	44284.97	5.96	142.8	142.8	21

2	500-1000	77469.48	121754.4	16.41	136	278.8	41
3	1000-1500	107151.3	228905.8	30.85	122.4	401.2	59
4	1500-2000	126716.9	355622.7	47.93	95.2	496.4	73
5	2000-2500	119729.3	475352.1	64.07	68	564.4	83
6	2500-3000	126962.2	602314.2	81.18	61.2	625.6	92
7	3000 <	139640.1	741954.3	100	54.4	680	100

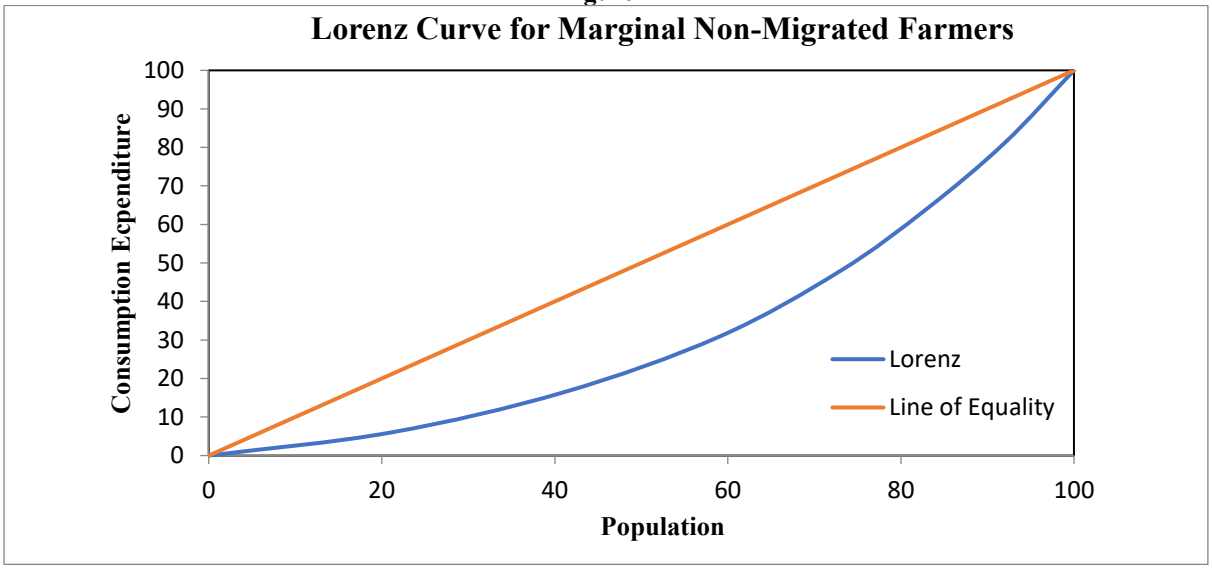
Source: Authors' Calculations

Table 2 describes the class of consumption expenditure and farmer's families' monthly expenditure. The class of families who spent monthly less than five hundred per month per consumer units has spent 44284.97 rupees per month. The next income group who spent between five hundred to one thousand has spent 77469.48 rupees per month. The income group who spent per month per consumer unit between one thousand to fifteen hundred has spent rupees 107151.3. Next income group lies between fifteen hundred to two thousand spent per month 126716.9 rupees. The income group who has consumption expenditure between two thousand to two thousand five hundred spent per month 119729.3 rupees. Next income group lies between two thousand five hundred to three thousand spent per month 126962.2 rupees. The last income group who has consumption expenditure more than three thousand per month per consumer unit has spent 139640.1 rupees.

The cumulated percentage of consumption expenditure on food and non-food items as well as the number of persons falling in each expenditure group among marginal non-migrated farmers have been presented in Table 2.

The cumulated percentage of consumption expenditure of food and non-food items and population of marginal non-migrated farmers together when plotted on graph gives the Lorenz curve evident from figure I.

Figure I



The value of the Gini-coefficient for the distribution of consumption expenditure on food and non-food items among marginal non-migrated farmers has been worked out 0.36.

III. 2 Monthly Consumption Expenditure of the Marginal Migrated Farmers

Table 3 states the monthly consumption expenditure of family wise marginal migrated farmers. It is clear from the table that out of one hundred families ten families are spending averagely 465.16 rupees per consumer unit.

Table 3
Migrated Marginal Farmers Family Wise Consumption Expenditure

Sr. No.	Class	Households	Consumption Expenditure Per Consumer Unit	Monthly Households Consumption Expenditure	No. of Person
1	0-500	10	465.16	21676.46	58
2	500-1000	19	947.25	83869.52	110.2

3	1000-1500	16	1475.68	110026.7	92.8
4	1500-2000	18	1995.47	167380	104.4
5	2000-2500	14	2418.24	157766	81.2
6	2500-3000	12	2876.26	160840.5	69.6
7	3000 <	11	3997.53	204913.4	63.8

Source: Primary Data

There are nineteen families who are averagely making consumption expenditure 947.25 rupees per consumer units. The sixteen families are spending 1475.68 rupees per consumer unit. Eighteen families are spending 1995.47 rupees per consumer unit on consumption.

The fourteen families are averagely making consumption expenditure of rupees 2418.24 per consumer unit. Rupees 2878.26 spent on consumption expenditure per consumer unit by twelve farmers migrated families. There are eleven families who spent 3997.53 rupees per consumer unit on consumption expenditure per month. From hundred farmer family's majority of the families are spending between the one thousand to three thousand per consumer units per month.

Table 4
Pattern of Monthly Consumption Expenditure (Food and Non-Food) of the Marginal Migrated Tribal Households

Sr. No.	Class	Monthly Households Consumption Expenditure	Cumulative Consumption Expenditure	Cumulative Expenditure Percentage	No. of Persons	Cumulative Persons	Cumulative Person Percentage
1	0-500	21676.46	21676.46	2.39	63.8	63.8	11
2	500 -1000	83869.52	105546	11.64	121.8	185.6	32
3	1000-1500	110026.7	215572.7	23.78	104.4	290	50
4	1500 - 2000	167380	382952.7	42.24	121.8	411.8	71
5	2000 - 2500	157766	540718.7	59.65	63.8	475.6	82
6	2500 - 3000	160840.5	701559.1	77.39	58	533.6	92
7	3000 <	204913.4	906472.5	100	46.4	580	100

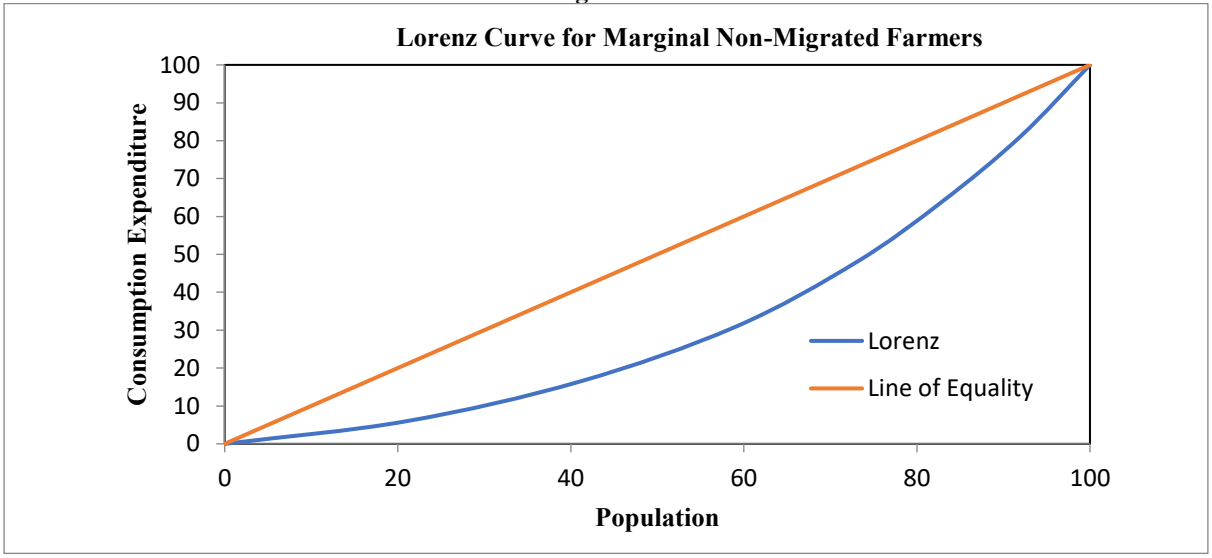
Source: Authors' Calculations

Table 4 describes the class of consumption expenditure of marginal migrated families' monthly expenditure. The class of families who spent monthly less than five hundred per month per consumer units has spent 21676.46 rupees per month. The next income group who spent between five hundred to one thousand has spent 83869.52 rupees per month. The income group who spent per month per consumer unit between one thousand to fifteen hundred has spent rupees 110026.7.

Next income group lies between fifteen hundred to two thousand spent per month 167380 rupees. The income group who has consumption expenditure between two thousand to two thousand five hundred spent per month 157766 rupees. Next income group lies between two thousand five hundred to three thousand spent per month 160840.5 rupees. The last income group who spends more than three thousand per month per consumer unit has spent 204913.4 rupees.

The cumulated percentage of consumption expenditure on food and non-food items as well as the number of persons falling in each expenditure group among marginal migrated farmers have been presented in Table 4.

Figure. II



The value of the Gini-coefficient for the distribution of consumption expenditure on food and non-food items among marginal non-migrated farmers has been worked out 0.29.

This value of Gini-coefficient i.e. 0.29 shows relatively less inequalities in the distribution of consumption expenditure on food and non-food items among the marginal migrated farmers as compare to the extent of inequalities in the distribution of consumption expenditure among marginal non-migrated farmers families.

IV. Conclusion

The variations in the consumption expenditure among non-migrated and migrated marginal farmer families found majorly in the first consumption expenditure class that is less than five hundred. Twenty-one families of marginal non-migrated farmers lie in this class while only ten families of marginal migrated farmer found in this class. This data shows that marginal migrated families in Kangra have higher standard of living than non-migrated families in Bharmour. While in all other categories of consumption expenditure class there was a minor difference in the number of farmer families. In case of Gini-coefficient the minor variation was found. The Gini-coefficient for the marginal non-migrated farmer families was 0.36 while, it was 0.29 for marginal migrated farmer families. There are more inequalities in consumption expenditure in Bharmour as compare to Kangra.

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