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Household Income Diversity, Poverty and Income Inequality in Northeastern India: Implications for Inclusive Development

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ABSTRACT

The study examines the pattern of employment and income diversification as well as their determinants and possible impact on household income and poverty in a northeastern Indian village. Using a comprehensive census approach, the findings revealed that the level of diversification is relatively low across different sectors of the economy. Education, household size, landholding, non-farm employment, worker population ratio, and access to formal credit were the major driving factors that influenced income diversification. The study also confirmed that income diversification has a positive impact on household income and reduces poverty. The non-farm sector plays a significant role in reducing income inequality. Farm income, on the other hand, has a lowering effect on inequality in the region. It is advised that promoting crop diversification to high-value crops, enhancing people's skills, and providing quality education create better non-farm income opportunities for inclusive development by improving income and reducing overall income disparity across households.

Keywords: Income diversification, rural poverty, non-farm employment, income inequality, inclusive development

JEL Codes: D31, I32, O15, Q12, R11

I
INTRODUCTION

Indian agriculture has faced a range of challenges that significantly impact the livelihoods of rural areas. Around 86 per cent of farmers were small and marginal (less than one hectare of land), with relatively lower income than their consumption expenditure (GoI, 2020). With the shrinking of land holdings, farmers leave fields uncultivated or used at very low productivity (NITI Aayog, 2016). The viability of small farms has also been confronted with novel obstacles in the wake of globalisation and market liberalisation (Shiva *et al*., 1999; Bhalla, 2004; Bhalla &Singh, 2009). However, agriculture employs 45.6 per cent of the workforce despite accounting for just 18.29 per cent of Gross Value Added in 2019-20 (NITI Aayog, 2022). This highlights the importance of the concept of disguised unemployment in Indian agriculture, where labour is underutilised in crop production. This could be a major push factor influencing households to diversify their income sources beyond traditional farming, as agricultural activities fail to provide adequate employment and income, compelling people to explore other opportunities to sustain their livelihoods. The household income diversification strategy is also more influenced by push factors than pull factors (Ellis, 2000; Barrett *et al*., 2001; Haggblade *et al*., 2002; Lanjouw, 2001; Vatta & Sidhu, 2007; Vatta *et al*., 2008).

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The transition from an agrarian to a more diversified economy, integrating the non-farm sector, is regarded as an important engine for the growth of the rural economy. Diversifying income sources to the non-farm sector is an emerging livelihood strategy among rural households (Himanshu *et al*., 2013; Bogal & Vatta, 2020). Studies also suggest a significant increase in non-farm employment over the period (Chadha, 1993; Sen, 1994; Chand *et al*., 2017). The non-farm sector is considered both an outcome and a catalyst for the structural transformation of the rural economy (Shariff & Lanjouw, 2004; Binswanger-Mkhize, 2012). Such diversification has significantly reduced the widespread income inequality among households in developing economies (Clay *et al*., 1989; Lanjouw, 1998). However, Reardon *et al*. (2000), in a review of household survey evidence from Africa, Asia, and Latin America, assert that the impacts of non-farm employment on rural income inequality are mixed. Chadha (1993) and Sen (1994) also argue that rising non-agricultural incomes increased inequality, as the more well-endowed benefit from the remunerative activities of the non-farm sector than poorer groups. It suggests that relatively poorer households were largely distress-driven to sustain their already meagre incomes (Lanjouw & Lanjouw, 2001; Vatta & Sidhu, 2007; Himanshu *et al*., 2011). Therefore, households should adopt a strategic approach to identify potential income sources for effective diversification.

More than 8 per cent of the population in North East India live in rural areas and mainly rely on agriculture and allied activities for their livelihood. However, the farming system in the region is distinguished by its subsistence nature, with small holdings and low cropping intensity (Priscilla *et al*., 2021; Singh *et al.,* 2025). Despite its enormous natural resources (land, water, forest, biodiversity, etc.), favourable climate, and abundant human capital, the region's agrarian economy has been locked in a vicious cycle of poor productivity, unemployment, low income, and poverty (Barah, 2007). Given the prevalence of risk in the region, diversification of income sources may often be a risk management strategy and a means of achieving a better livelihood. This paper aims to investigate the patterns of employment, income diversification, and their potential impact on household income, poverty, and inequality in a micro-level study, with the goal of developing targeted interventions that promote the well-being of rural livelihoods and reduce disparities. The paper hypothesised that non-farm income diversification has great potential to increase rural household income and reduce inequality.

II

DATABASE AND METHODOLOGY

2.1 Data

The present study is based on the complete census approach method of a village named Potsangbam conducted in 2020-21. The village is located in the Bishnupur district of Manipur state in Northeast India, with a total of 683 households.

As the average landholding in the village is so small, the households were categorised into landless, marginal (<1 acre), small (1-2.5 acres), and medium (2.5 -5.0 acres), and the distribution of households is shown in Table 1. Most households (46.7%) belonged to the landless category, followed by marginal (26.8%), small (24.6%), and medium (1.9%) landholding categories. The data on various socio-economic parameters of the village economy were collected with the help of a pre-tested, well-structured questionnaire from the sample households through personal interviews. For the present study, we consider income diversification in terms of the number of income sources and the income obtained from them. However, Income diversification can be defined in several ways (Delgado & Siamwalla, 1997; Reardon, 1997; Sujithkumar, 2007).

TABLE 1. HOUSEHOLD CATEGORIZATION OF THE VILLAGE

Household category	Households (%)
Landless	46.7
Marginal	26.8
Small	24.6
Medium	1.9
Overall (no.)	683

2.2 Methodology

2.2.1 Income diversification

The Herfindahl Index (HI) is a concentration measurement score used to measure income diversification and is commonly used in such studies (Rosenbluth, 1955; Hirschmann, 1964; Vatta and Sidhu, 2007). The HI is determined by the equation:

$$HI = \sum_{i=1}^{n} s_i^2$$

Where s_i is the share of the i[th] income source in the total household income. The household income sources were first classified into three broad categories, namely farm income, non-farm income, and other income. The broad three categories were further divided into three, six, and four sub-categories, respectively, for measuring the intra-sector income diversification. To estimate the extent of income diversification in Potsangbam village, the value of the Herfindahl Index was subtracted from one. It is known as the Diversification Index (DI). Mathematically,

$$DI = 1 - HI$$

2.2.2 Factors affecting income diversification

Using Ordinary Least Square (OLS) to estimate censored variables might result in biased and inconsistent estimates (Long, 1997). Given the nature of our dependent variable, we applied a Tobit model (Wooldridge, 2010), a censored regression model, to provide a more precise estimate. Other studies on income

diversification have also used Tobit models to overcome such limitations (Janvry & Sadoulet, 2001; Babatunde & Qaim, 2009; Vatta & Sidhu, 2007). The model is formulated as follows:

$$y_t^*=x_t\beta+\varepsilon_t$$

$$y_t= 0 \text{ if } y^* \leq 0,\ y_t=y_t^* \text{otherwise}$$

Where y_t measures the income level from various activities, y_t^* is the Herfindahl Index, while x_t represents the independent variables and ε_t denotes the error term. The explanatory variables used in model are age (year), gender (dummy: male = 1, otherwise =0), education (year), caste (dummy: lower caste=1(OBC&SC), otherwise=0), household size (no.), landholding (acre), incidence of non-farm employment (dummy: yes=1, otherwise=0), worker-population ratio (%) and, access to formal credit (dummy: yes=1, otherwise=0).

2.2.3 Impact of income diversification on household income and poverty

We have presented the correlation coefficients of household income with the number of workers, the number of income sources, and the diversification index to examine whether income diversification helps increase household income and reduce poverty. Mathematically:

$$r = \frac{n(\sum_{i=1}^{n} xy)-\sum_{i=1}^{n} x \sum_{i=1}^{n} y}{\sqrt{[n\sum_{i=1}^{n} x^2 -(\sum_{i=1}^{n} x)^2[\ n\sum_{i=1}^{n} y^2-(\sum_{i=1}^{n} y)^2}}$$

Where r is the correlation coefficient, x and y are the deviations from their respective means. To determine the incidence of poverty, the monthly per capita income of the households was ordered in ascending order, with the poorest quintile defined as the poorest. The poverty line was set at the bottom monthly per capita income of the second income quintile (₹2,606), and households below this level were defined as being in poverty. According to the Tendulkar committee report from 2012, the poverty line for rural Manipur was set at ₹ 1118. The disparity between the two estimations is considerable, as the current study relies on relative poverty rather than absolute poverty, and the value of the specific poverty line is also expected to increase over time.

2.2.4 Income inequality

The relative concentration coefficient $(g-i)$ was calculated to determine whether a particular income source was inequality-increasing or inequality-decreasing in nature. The g_i is given below:

$$g_i=R_i\frac{G_i}{G}$$

Where, G_i and G are the Gini coefficients for the ith income source and total income, respectively.

$$R_i=\frac{\text{cov(yi,r)}}{\text{cov(yiri)}}=\frac{\text{covariance between source income amount and total income rank}}{\text{covariance between source income amount and source income rank}}$$

However, G and G_i can be calculated as below (Pyatt et al., 1980):

$$G=\frac{2}{n\mu}\text{cov}(y,r)$$

Where n is the number of rural households, μ is the mean level of income of rural households, y is the series of income and r is the series of corresponding income ranks. The g_i A value near unity indicates that the income source had an inequality-inducing effect, and a value near zero shows an inequality-reducing effect. The factor inequality weight (FIW) of a specific income source indicates its proportional contribution to overall income inequality. The sum of factor inequality weights from all the sources is unity.

$$\text{FIW} = wigi$$

$$wi = \frac{\mu_i}{\mu}$$

Where μ_i is the average income of the rural households from the i^{th} source, and μ is the average income of the rural households.

III

RESULTS AND DISCUSSION

3.1 Employment pattern

A stable and suitable occupation is crucial and plays a significant role in shaping the socio-economic condition of the household, as well as economic development in rural areas. The distribution of workers in the households in different sectors of the economy is shown in Table 2. Most (61.6%) of the workers were engaged in the non-farm sector for livelihood. Of the workers (38.4%) employed in the farm sector, 19.8 per cent were involved in crop farming, 13.0 per cent in allied activities such as livestock rearing and fishing, and 5.6 per cent worked as agricultural labourers. The proportion of workers engaged in the farm sector was 25.6 per cent for landless, 39.5 per cent for marginal, 50.9 per cent for small, and 63.6 per cent for medium-holding households. For the non-farm sector, the proportion of workers engaged was highest in landless households, with 74.4 per cent, followed by marginal (60.5%), small (49.1%), and medium (36.4%) holding households. It shows that the size of operational holding has a positive relationship with the share of workers in the farm sector and a negative relationship with non-farm sector workers.

TABLE 2. DISTRIBUTION OF WORKERS IN DIFFERENT SECTORS OF THE ECONOMY (PER CENT)

Particulars	Landless	Marginal	Small	Medium	Overall
Crop farming	-	22.8	38.9	47.7	19.8
Allied activities	16.5	10.8	10.4	15.9	13.0
Agricultural laborer	9.1	5.9	1.6	-	5.6
Sub-total of the farm	25.6	39.5	50.9	63.6	38.4
Construction & manufacturing	32.7	26.4	15.7	2.3	24.8
Salaried private	10.7	11.3	8.1	6.8	10.0
Salaried government	11.1	9.0	10.6	13.6	10.4
Trade, commerce & transportation	17.8	12.4	12.2	11.4	14.4
Caste-based & personal services	2.1	1.3	2.44	2.3	2.0
Sub-total of non-farm	74.4	60.5	49.1	36.4	61.6
Total (No.)	606	443	491	44	1584
(%)	(100)	(100)	(100)	(100)	(100)

Note: Percentages given are the share of each respective HH category

3.2 Household access to various income sources

The access of villagers in Potsangbam to various income sources is shown in Table 3. Only 27.3 per cent of the landless households received income from agriculture and allied activities, compared to other landholding categories, as they cultivated crops and engaged more heavily in agriculture and allied activities than the landless households. Employment as agricultural labour declined with an increase in the landholding size. While 16.6 per cent of the landless households were involved in agricultural wage work, none from the medium category were undertaking this activity. Employment in the non-farm sector also witnessed a similar but relatively weaker relationship, as almost 96.5 per cent of the landless households derived income from this source. The proportion declined with an increase in the landholding category, reaching approximately 91.3 per cent for medium-sized farming households. However, the share of non-farm households was still high in cultivating households. This can be attributed to the region's subsistence crop farming, which prompts villagers to seek non-farm income sources for their sustained livelihood. Das (2018) also found a higher concentration of rural non-farm income in large landholding households in the region. The proportion of households in other income sources also increased with farm size. The average number of income sources showed a positive relationship with the landholding category, ranging from 1.7 for landless farmers to 2.5 for marginal farmers, 2.6 for small farmers, and 2.9 for medium farmers. More income sources for large landholding households may be related to the fact that they typically have the resources and capacity to engage in various economic activities, thereby diversifying their income sources by investing in different sectors. Additionally, subsistence farming in the region leads households to engage in other sectors for a better standard of living. However, it was found to be inconsistent with

Lanjouw & Lanjouw (2001) and Vatta & Sidhu (2007), as landless and marginal households have more income sources.

TABLE 3. ACCESS OF SAMPLE HOUSEHOLDS TO DIFFERENT SOURCES OF INCOME (PER CENT)

Sources	Landless	Marginal	Small	Medium	Overall
Farming and allied activities	27.3	100.0	100.0	100.0	66.5
Agricultural labor	16.6	14.8	4.8	-	12.8
Non-farm sector	96.5	92.4	94.2	91.3	94.3
Others	22.9	45.9	54.2	100.0	38.2
Average no. of income sources	1.7	2.5	2.6	2.9	2.1
Per capita income (Rs.)	46591	44056	54129	63150	48241

3.3 Household income

Household income is generally regarded as the best proxy for welfare (Datta & Meerman, 1980). It may also be related inversely to household poverty (Lynch & Kaplan, 2000). The share of household income of households from different sources is discussed in Table 4. The household income sources were categorised into three groups, i.e., farm income, non-farm income, and transfer/other incomes. The farm income includes income from crop farming, allied activities like livestock/fishing, and agricultural labour, and the non-farm consists of income from construction & manufacturing, salary (both private and government), trade, commerce & transportation, caste-based & personal services, and others (MGNREGA). The transfer/other incomes include remittances, pensions, rent, and social security. The average annual household and per capita incomes were ₹2.57 lakh and ₹48,241, respectively. The annual income of the landless and marginal households was nearly the same (Rs ₹2.26 lakh for the landless and Rs ₹ 2.51 lakh for the marginal holders). The small farming households earned almost 25 per cent higher than the marginal farming households and 40 per cent higher than the landless households. On the other hand, the medium farming households earned more than 50 per cent higher than the marginal and 68 per cent higher than the landless households. On average, the annual non-farm income was ₹1.82 lakh, constituting more than 70 per cent of the household income. The share of the non-farm income declined sharply with increased holding size. The rates were 79.3 per cent for the landless, 72.6 per cent for the marginal, 60 per cent for the small, and 46.6 per cent for the medium-sized farming households. The difference in the household income across various household categories was mainly due to the difference in farm income, as it increased from just Rs ₹33415 for the landless to Rs ₹1.69 lakh for the medium farming households, and its share in the total household income rose from 14.8 per cent to 44.6 per cent. The transfer income, which accounted for a 6-9 per cent share of total household income, also showed a positive relationship with farm size. The per capita income of the landless and marginal farming households was almost similar (₹ 46591 for the landless and ₹44056 for the marginal) but significantly higher for small (₹54129) and medium

farming households (₹ 63150). The data also reflect widespread poverty in the village, as a large proportion of households earn below the average level of per capita income in all household categories. Only about one-third of the households belonging to landless, marginal, and small farming categories could earn above the average per capita income in the village. However, more than half of the medium-sized farm households earned a higher-than-average per capita income.

3.4 Income diversification

The income diversity, as shown by the diversification index of income sources, is presented in Table 4. The overall income diversification index was 0.35, showing a positive relationship with landholdings. The income diversification index for the landless, marginal, small, and medium holding households was 0.27, 0.40, 0.42, and 0.48, respectively. Within the farm or non-farm income sources, the diversity was the lowest in farm income. Landless and marginal households often lack access to essential productive assets, including land, infrastructure, and capital. Without these resources, they may face barriers to engaging in various income-generating activities. Abdulai and Crole-Rees (2001), Reardon *et al*. (2006), and Rehan *et al*. (2019) supported the finding as wealthier households diversify income from different sources. The extent of income diversification within the various income sources of the households has also been sought after. With an overall diversification index of 0.07, the farm income source was the least diverse among the households. The farm diversification indices revealed a positive relationship with landholdings, ranging from 0.01 for landless to 0.17 for medium holdings. Non-farm income sources were more diverse, with an overall index of 0.16, and showed slight variation across different landholding categories. (0.14 to 0.17). The above findings were supported by Vatta & Sidhu (2007), as farms were the lowest and non-farms were the highest diversified income sources in rural households. With an overall diversity index of 0.13, the other income sources increase with landholding, with the highest values in medium (0.32) and large (0.09) holdings, and the lowest in landless households (0.09).

The overall finding indicates that the level of diversification is relatively low among different sectors of the economy (Table 5). This can be attributed to the region's limited infrastructure, industries, and economic activities, resulting in fewer income-generating opportunities and a greater reliance on traditional sectors, such as agriculture. However, the region's farming system is also distinguished by its subsistence nature, with small holdings and low cropping intensity (Priscilla *et al*., 2021). Panda (2017) also reported the rural labour market's inefficient and heterogeneous nature, signalling distress diversification and casualisation of employment in the region.

TABLE 4: DISTRIBUTION OF HOUSEHOLD ANNUAL INCOME FROM VARIOUS SOURCES (VALUE IN ₹)

Sources	Landless		Marginal		Small		Medium		Overall	
	Average income	% share	Average income	% share	Average income	% share	Average income	% share	Average income	% share
Crop farming	-	-	28442	11.3	70343	22.3	140392	37.1	27595	10.7
Allied activities	26288	11.6	17811	7.1	26893	8.5	28769	7.6	24213	9.4
Agricultural labor	7127	3.2	5358	2.1	1946	0.6	-	-	5243	2.0
Sub-total of farm	33415	14.8	51611	20.6	99182	31.5	169162	44.6	57051	22.2
Construction & manufacturing	56691	21.5	55975	22.3	40417	12.8	4308	1.1	51499	20.0
Salaried private	26755	11.9	33743	13.4	26539	8.4	30154	8.0	28639	11.1
Salaried government	50398	22.3	53699	21.4	63649	20.2	74923	19.8	55009	21.4
Trade, commerce & transportation	34639	15.4	29366	11.7	44946	14.3	51923	13.7	36091	14.0
Caste-based & personal services	4828	2.1	2940	1.2	7196	2.3	8462	2.2	4974	1.9
Others (MGNREGA)	5583	2.5	6629	2.6	6057	1.9	6685	1.8	6001	2.3
Sub-total of non-farm	178895	79.3	182353	72.6	188804	60.0	176454	46.6	182212	70.8
Remittances	5078	2.3	8612	3.4	15060	4.8	18462	4.9	8735	3.4
Pensions	4188	1.9	5109	2.0	7774	2.5	8846	2.3	5406	2.1
Rent	2038	0.9	-	-	429	0.1	-	-	1057	0.4
Social securities	2039	0.9	3408	1.4	3536	1.1	5938	1.6	2848	1.1
Sub-total other income	13343	5.9	17129	6.8	26798	8.5	33246	8.8	18046	7.0
Total	225654	100	251093	100	314780	100	378900	100	257309	100
Per capita income	46591		44056		54129		63150		48241	
Households above average per capita income (%)	33.9		30.1		38.1		53.8		33.1	

TABLE 5. DIVERSIFICATION INDICES OF VARIOUS HOUSEHOLD INCOME SOURCES

Household category	Diversification indices			
	Farm	Non-farm	Others	Overall
Landless	0.01	0.15	0.09	0.27
Marginal	0.13	0.17	0.14	0.40
Small	0.14	0.17	0.17	0.42
Medium	0.17	0.14	0.32	0.48
Overall	0.07	0.16	0.13	0.35

3.5 Determinants of income diversification

The Tobit estimates of determinants of income diversification are discussed in Table 6. The education of the household head, household size, land holding, incidence of non-farm employment, worker population ratio, and availability of formal credit significantly influenced the income diversity of a household. Higher education of the household head enhanced income diversification. Individuals with higher education get specialised skills and knowledge in specific fields. Similar findings have been noted by Barrett *et al*. (2001), Haggblade *et al*. (2007), and Losch *et al*. (2012) as improvements in education level are more likely to have

TABLE 6. TOBIT ESTIMATES OF THE DETERMINANTS OF INCOME DIVERSIFICATION

Variables	Coefficients
Age	-0.03^{NS} (0.04)
Gender	-0.05^{NS} (0.03)
Education	0.03** (0.01)
Caste	-0.02^{NS} (0.01)
Household size	0.02* (0.01)
Landholding	0.04* (0.07)
Incidence of non-farm employment	0.07* (0.02)
Worker population ratio	0.02** (0.01)
Access to formal credit	0.15* (0.02)
Constant	-0.09** (0.05)
Sigma	0.148
Log likelihood	331.12

*Note: * and ** indicate significance at 1 and 5 per cent, respectively*
NS means non-significant

access to diverse income sources. Households with more members also diversified more, as the land was insufficient to cater to the economic needs of the additional people in the household. The landholding of households also significantly influenced income diversification. This can be attributed to subsistence farming and low earnings from agriculture, which compel households to seek employment in other sectors. Access to formal credit enables capital formation and investment in other income-generating activities, increasing income diversity. Khai & Dhan (2014) show similar findings. Both pull and push factors contribute to the growth of the non-farm sector in the region.

3.6 Income diversification vis-à-vis household income and poverty

The correlation coefficients between household income and poverty, on the one hand, and the number of workers, income sources, and diversification of households, on the other, are presented in Table 7. The household income showed a positive and significant relationship with the number of workers, income sources, and income diversification. The number of household income sources increases across the land size categories and is very low for landless households. In contrast, landless households diversified their income more. A positive and significant relationship between income diversity and household income for the landless may be due to their focus on a few specialised activities (trade, commerce, profession or other personal services). A positive but non-significant relationship exists between income diversification and household income among cultivating households, suggesting that their income diversification strategies may not be sufficient to raise their income due to the dominant distressing nature of these activities. These activities are often low-productivity and low-return endeavours, as households may lack the necessary skills, capital, or other facilities to pursue more profitable ventures. Households in the lowest income quintile were classified as poor, and the significantly negative association of poverty incidence with the number of household workers, number of household income sources, and income diversification indicates that income diversity could alleviate household poverty. Vatta & Sidhu (2007) also reported such a poverty-alleviating impact. However, poverty is a complex phenomenon and remains a persistent and pressing issue in rural areas. To effectively tackle rural poverty, it is critical to diversify the rural economy by boosting rural non-farm employment opportunities.

TABLE 7. COEFFICIENT OF CORRELATION BETWEEN INCOME DIVERSIFICATION AND HOUSEHOLD INCOME

Particulars	No. of workers	No. of income sources	Diversification index
Coefficient of correlation with total household income for			
Landless	0.37*	0.06^{NS}	0.22*
Marginal cultivators	0.40*	0.21*	0.03^{NS}
Small cultivators	0.42*	0.23*	0.07^{NS}
Medium & above cultivators	0.66**	0.26*	0.37^{NS}
All households	0.44*	0.21*	0.19*
Coefficient of correlation with the incidence of poverty			
All households	-0.12*	-0.07*	-0.11*

*Note: * and ** indicate significance at 1 and 5 per cent, respectively*
NS means non-significant

3.7 Income inequality

The information on income inequality by factor components and the contribution of different income sources to the total inequality is shown in Table 8.

The non-farm income had the highest inequality-reducing effect, followed by farm and other income. Crop farming had the greatest impact on the various components of farm income. In contrast, agricultural labour and allied activities, such as dairying and fishing, had the most negligible effect on reducing income inequality. Due to subsistence farming with smaller holdings and low cropping intensity, crop income was uniformly distributed and had a more pronounced inequality-reducing impact. As fewer households engaged in agricultural labour and allied activities, their income became concentrated among a few, leading to increased inequality. The highest inequality-reducing impact was observed from the others (MGNREGA), construction, and manufacturing incomes within the non-farm income sources. However, the inequality-inducing effect was observed for caste-based & personal services, as well as salaried private and salaried government incomes, and trade, commerce, and transportation. Employment opportunities in the other (MGNREGA), construction, and manufacturing sectors were primarily unskilled, offered lower remuneration, and required less capital investment. As a result, most households engaged in these activities and contributed to reducing income inequality. Employment opportunities in the caste-based profession, personal services, private or public sector, trade,

TABLE 8. INCOME INEQUALITY BY FACTOR COMPONENTS OF THE INCOME SOURCES

Income sources	Relative concentration coefficient (g_i)	Contribution to overall income inequality (%)
1. Farm income	0.62	0.08
a. Crop farming	0.77	0.07
b. Allied activities	0.81	0.02
c. Agricultural labour	0.89	-0.01
2. Non-farm income	0.43	0.76
a. Construction & manufacturing	0.65	-0.04
b. Salaried government	0.83	0.09
c. Salaried private	0.89	0.53
d. Trade, commerce & transportation	0.83	0.16
e. Caste based & personal services	0.96	0.01
f. Others (MGNREGA)	0.35	0.00
3. Other income	0.90	0.14

commerce and transportation required skills and capital investment, leading to only a few households being engaged in such activities and, consequently, widening income inequality among households. Although the non-farm sector contributed 76 per cent to overall inequality, the farm sector's contribution was only 8 per cent. The sub-sectors of the farm sector contributed less than 7 per cent to income inequality, which is encouraging. The finding was supported by Priscilla *et al*. (2021), who noted that farm income has an inequality-reducing effect in the region. Promoting crop

diversification to high-value crops among farmers is crucial, as is improving people's skills and access to quality education, which can lead to better opportunities for non-farm income and reduced overall income disparity across households.

IV

CONCLUSIONS AND POLICY IMPLICATIONS

The complex dynamics of rural employment, income diversification, and their determinants, as well as their possible impact on household income, poverty, and inequality, were discussed in this study. The findings revealed that income diversification has emerged as a key strategy for reducing poverty and increasing household income. However, the level of diversification is relatively low, highlighting the region's poor infrastructure, lack of industries, and limited economic activities, which result in fewer income-generating opportunities and a greater reliance on traditional sectors, such as agriculture. Education, household size, landholding, non-farm employment, worker population ratio, and access to formal credit were the major driving factors that influenced income diversification. The study also confirmed that income diversification has a positive impact on household income and reduces poverty. The non-farm sector plays a significant role in reducing income inequality. The hypothesis that diversification into the non-farm sector has the potential to boost income and reduce inequality among households is validated by the above findings. Non-farm activities, such as the construction sector, which require less skill and investment, play a significant role in reducing income disparity. However, the salaried government, private, trade, commerce, and transportation sectors showed an inequality-inducing impact as a result of skill and resource competence. Farm income, on the other hand, has a lowering effect on inequality in the region. Promoting crop diversification to high-value crops, enhancing people's skills, and providing quality education for better access to non-farm income opportunities, thereby improving household income and reducing overall income disparity across households. Fostering the growth of the non-farm sector through infrastructure development, capacity building, and creating an enabling environment for micro-enterprises can lead to efficient income diversification, poverty reduction, and inclusive development in the region.

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