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LEVELS, PATTERNS AND DISTRIBUTION OF INCOME AMONG MARGINAL AND SMALL FARMERS IN RURAL AREAS OF JAMMU REGION

Waqar Afzal
Research Scholar,
Department of Economics, Punjabi University, Patiala
Email-id : waqarafzal31@gmail.com

Dr. Veerpal Kaur
Assistant Professor
University College, Ghudda, Punjabi University Patiala
Email-id :v.kaur31@yahoo.com
and
Dr. Rupinder Kaur
Assistant Professor
Department of Economics, Punjabi University, Patiala
Email-id :- rupinderkaur0076@gmail.com

Abstract : Income distribution and livelihood patterns of marginal and small farmers are crucial for understanding rural economic well-being. In the Jammu region, where agriculture continues to be the backbone of livelihoods, studying income dynamics provides critical insights into farmers' socio-economic conditions. This paper examines the levels, patterns, and distribution of income among marginal and small farmers in the rural areas of the Jammu region. The study is based on primary data collected through a two-stage stratified random sampling method. The findings reveal that both average household income and per capita income are positively associated with agricultural productivity and farm size. The annual income of marginal farm households amounts to ₹1,16,564.52, while that of small farm households is ₹1,85,190.74. The analysis further highlights that the major sources of income for both categories are farm business income (28.78 per cent) and livestock rearing (18.74 per cent). The study concludes that to improve the economic well-being of these households, farm incomes need to be enhanced through agricultural diversification, productivity enhancement, and non-farm employment opportunities.

Keywords: - Distributions, Farmers, Households, Income, Marginal, Per capita, Small

1.0 Introduction

Agriculture has historically served as the backbone of India's economy, not merely functioning as a means of livelihood but also shaping the cultural and social fabric of rural communities (Acharya, 2006). Despite rapid industrialization and urbanization, the agricultural sector continues to hold vital significance, with 68.84 per cent of India's population still residing in rural areas and primarily depending on agricultural activities for their sustenance (Sharma & Pathak, 2024). Agriculture also remains a perennial source of livelihood and provides raw materials to a very large number of industries (Alexpandi & Kumar, 2014). Although the share of agriculture in the Gross Domestic Product (GDP) has declined from over half at the time of independence to less than one-fifth currently, agriculture still remain the predominant sector in terms of employment (Singh & Singh, 2012). A majority of rural families are dependent on agriculture for their livelihood. The socio-economic fabric of the agrarian economy in the Jammu region is shaped by a complex interplay of landholding structures, livelihood diversity, ecological conditions, and market access (Sharma, 2018; Sheik & Bhat, 2010).

The Marginal and small farmers form the majority of the rural workforce but continue to be among the most economically vulnerable. Their limited land assets often constrain the scale and profitability of agricultural

operations, compelling them to diversify into supplementary livelihood sources such as livestock rearing, dairy farming, casual wage labor, and remittance-based income (Chandra, 2023; Sharma, 2010). However, their capacity to diversify effectively is curtailed by institutional barriers, limited access to credit, poorly developed market linkages, and inadequate infrastructural support. Seasonal fluctuations in income, caused by dependence on rain-fed agriculture and limited irrigation facilities, further intensify household vulnerability. Thus, rural incomes in this region are not merely determined by land size but are deeply embedded in a broader socio-institutional context marked by inequalities in asset ownership, access to productive inputs, and exposure to risk.

The Jammu region, located in the northern part of the Union Territory (UT) of Jammu and Kashmir, is predominantly agrarian in nature. The agricultural economy of Jammu is characterized by the dominance of marginal and small farmers, who constitute a substantial portion of the rural workforce. Marginal farmers, owning less than one hectare of land, and small farmers, with holdings between one and two hectares, collectively account for nearly 85 per cent of the farming population in Jammu (Soni, 2024). Agricultural activities are largely dependent on monsoon rainfall, as the irrigation infrastructure remains underdeveloped, particularly in hilly and remote areas.

Agricultural practices in the region are primarily traditional, marked by low mechanization levels, limited use of high-yielding seed varieties, and minimal adoption of scientific soil management techniques. Many marginal farmers continue to face significant hurdles in accessing institutional credit due to stringent collateral requirements and cumbersome bureaucratic procedures. Moreover, the limited reach of agricultural extension services has hindered the adoption of modern farming techniques among these farmers. As a result, their productivity remains suboptimal, leading to a vicious cycle of low agricultural income, high indebtedness, and food insecurity.

Against this backdrop, the present paper aims to examine the levels, pattern, and distribution of income among marginal and small farmers in the rural areas of the Jammu region. It focuses on assessing income variations across households, the degree of inequality in distribution, and the factors that shape economic vulnerability. The study also seeks to identify structural constraints that restrict income growth and perpetuate disparities. The findings are expected to provide useful insights for policymakers in formulating measures to strengthen livelihood security, reduce inequality, and improve the resilience of rural farming households in the region.

2.0 Review of Literature

Several studies have examined the income levels, patterns, and determinants of livelihood among marginal and small farmers in India, providing valuable insights into regional variations, sources of income, and factors influencing income distribution. The following review summarizes key findings from relevant research, highlighting trends among rural farming communities across different regions.

Singh (2012) highlighted the challenges and opportunities for ensuring the sustainable viability of marginal and small farmers in India. Using secondary data from the Agriculture Census, Ministry of Agriculture, Ministry of Rural Development, and the Planning Commission, the study found that the number of operational holdings increased from 120 million to 129 million. Marginal farmers accounted for 65 per cent of holdings, with an average size of less than one hectare, and were concentrated in states such as West Bengal, Bihar, and Kerala. In contrast, small, semi-small, medium, and large farmers engaged in crop farming and received greater benefits. The study also noted a decline in employment opportunities in agriculture, accompanied by growth in the service sector due to improved education, easier access to credit, and technological innovations. The author recommended fostering new innovations, expanding educational institutions, and improving access to information on modern farming techniques to enhance the sustainability of small and marginal farmers.

Singh et al. (2017) aimed to analyze the levels and patterns of income among farmers and agricultural labourers across different regions of rural Punjab. The study found that, on average, both farm and agricultural labourer households earned the highest income in the Central Plains Region, followed by the South-West Region and the Shivalik Foothills Region. A positive relationship between farm size and income levels was observed. For farmers, farm business income constituted the most significant component of household income, whereas for agricultural labourers, income from hiring out labour in agriculture was the important source. Per capita income followed a similar regional pattern, being highest in the Central Plains Region and lowest in the Shivalik Foothills. Inter-regional analysis indicated that farm households in the Central Plains Region experienced a relatively less skewed income distribution. The Gini coefficient revealed that per capita income concentration was highest in the Shivalik Foothills Region and that per household income concentration exceeded per capita

income concentration in all the three regions.

Sharma (2018) examined the patterns, processes, and determinants of rural livelihood diversification among households in the Udhampur and Samba districts of Jammu and Kashmir. The study collected data through household surveys of 300 sampled households. Using a multiple regression model with 12 hypothesized predictors, nine variables were identified as significantly influencing livelihood diversification. The analysis revealed that greater natural, physical, financial, and human capital, along with economically active adults and female-headed households, positively and significantly contributed to diversification of livelihood activities. Conversely, factors such as location and access to social capital exhibited a negative and significant effect. The study suggested that policymakers should focus on identifying and implementing strategies that effectively support livelihood diversity in the state.

Verma and Sudan (2021) investigated the perceived impacts of climate change on the livelihoods of marginal and small farmers in the Jammu region of India. The study aimed to analyze the effects of climate change on crop farming and livestock rearing, understand the socio-economic implications for farmers' livelihoods. The research focused on irrigated and non-irrigated areas in Jammu and Rajouri districts. A sample of 600 farm households was selected using a multistage sampling technique and pre-tested structured questionnaires. The findings indicated that climate change adversely affected both marginal and small farmers in irrigated and non-irrigated agriculture. These adverse impacts were more pronounced among farmers in non-irrigated areas. The study also highlighted variations in socio-economic impacts across households, largely attributable to differences in livelihood diversification strategies, which conferred varying levels of income security.

Pattanaik et al. (2025) highlighted that enhancing farm productivity is crucial for India's future food security due to rising food demand, shrinking cultivable land, and increasing climate risks. Despite small farms being relatively more productive, land consolidation has been limited, and average farm size declined from 2.28 hectares in 1970–71 to 0.7 hectares in 2021–22. Using data from the Situation Assessment Survey (2018–19) and NABARD's NAFIS (2021–22), the study found marginal farms remain more productive per hectare, while small and marginal farmers rely heavily on non-farm income. The authors recommended targeted support for marginal farmers through credit, insurance, soil health programs, and collective organizations, promoting mechanization via suitable or shared farm equipment, and exploring land consolidation to raise farm size to a threshold of 1.65 hectares, which could significantly increase cultivation income.

3.0 Objective

The present paper aims to examine the levels, patterns, and distribution of income among marginal and small farmers in rural areas of the Jammu region.

4.0 Methodology

The study is based on primary data. For this purpose, three districts were selected based on the proportion of marginal and small farmers. Kathua district selected from high, Kishtwar from medium and Reasi from low proportion of marginal and small farmers. One village has been selected from each development block of the selected district on random basis. 15 per cent households out of total households are selected for survey. A total 411 households were surveyed, 157 from Kathua district, 134 from Kishtwar, and 120 from Reasi district. Among these, 181 households belonged to the marginal farm-size category, and 230 households belonged to the small farm-size category. The study pertains to the year 2022–23. Additionally, various journal articles, research papers, working papers, newspapers, and websites were reviewed to provide a theoretical context for the study.

5.0 Results and Discussion

5.1 Income Levels of Marginal and Small Farmers:

Table 1 presents the mean income earned from different sources by the marginal and the small farm size categories. A key observation from the table is that marginal farmers earn a lower average total income (₹1,16,564.52) compared to small farmers (₹1,85,190.74). This pattern is counterintuitive at first glance, as land size is conventionally associated with higher income. However, the discrepancy is explained by the significantly diversification among marginal farmers, who derive substantial portions of their income from farm business

income (₹31,752.3), livestock activities (₹27,423.1), and labour (₹17,626.4). Small farmers, while owning more land, appear to rely more heavily on farm business income (₹54,690.86) and livestock activities (₹30,305.66), but less on diversified income streams. This exposes them to greater risks related to crop failure, market fluctuations, or seasonal unemployment. Thus, the higher income among small farmers reflects adaptive livelihood behaviour—particularly among households with better labour availability, animal assets, and connections to salaried employment or migratory labour opportunities. Additionally, marginal and small farmers earn ₹18,325.06 vs. ₹21,632.52, respectively, for small farmers from milk and milk products. Moreover, the small farmers derive higher income from salaries and other sources, suggesting either a larger elderly population in these households or stronger migratory networks contributing to financial inflows. These figures reiterate that economic resilience is less about landholding size and more about the diversification and utilization of available human, social, and physical capital. It can be concluded that marginal farmers, despite being structurally constrained by land, often exhibit greater economic flexiblility and responsiveness due to their higher engagement in off-farm and allied activities.

Table 1: Levels of Income of Marginal and Small Farmers — Category-wise

(Mean Values in Rs. Per Annum)

S. No.	Source of Income	Marginal Farmers	Small Farmers	All Sampled Farmers
1	Farm business income	31,752.3	54,690.86	44,588.96
2	Milk and milk products	18,325.06	21,632.52	20,175.95
3	Livestock	27,423.1	30,305.66	29,036.21
4	Hiring out labour in agriculture	17,626.4	13,113.26	15,100.8
5	Hiring out agri. machinery/equipment	3,117.42	11,531.98	7,826.29
6	Salaries	7,365.17	29,413.04	19,703.39
7	Pensions	2,528.1	5,538.2	4,212.58
8	Remittances	3,443.82	5,421.74	4,550.69
9	Other sources	4,983.15	13,543.48	9,773.60
	Total Income	**1,16,564.52**	**1,85,190.74**	**1,54,968.49**

Source: Field Survey, 2022–23
Note:* Net income is taken
****It includes income from hiring out labour in non-agricultural sector and income from small business-like shop keeping etc.

5.2 Pattern of Income (Percentage of Total Income): Table 2 provides a comparative analysis of the income patterns of the marginal and small farmers by showing the proportional contribution of each income source to the total annual household income. A notable feature emerging from the data is the dominance of farm business income, which contributes the highest share—27.24 per cent for the marginal farmers and 29.54 per cent for the small farmers. This suggests that wage employment in agricultural operations, either within or outside the village, remains a vital income source, especially for land-poor or underemployed rural populations. The second-largest contributor among the small farmers is livestock-related income (16.36 per cent), reflecting the economic value of animals not only for milk but also for sale, and manure in some areas. Marginal farmers earn a substantial portion from livestock (23.53 per cent), although they rely more uniformly across multiple income streams.

Table 2: Pattern of Income of Marginal and Small Farmers — Category-wise

(Percentage of Total Income)

S. No.	Source of Income	Marginal Farmers	Small Farmers	All Sampled Farmers
1	Farm business income	27.24	29.54	28.78
2	Milk and milk products	15.73	11.69	13.01
3	Livestock	23.53	16.36	18.74
4	Hiring out labour in agriculture	15.12	7.08	9.75
5	Hiring out agri. Machinery	2.68	6.22	5.05
6	Salaries	6.31	15.89	12.71
7	Pensions	2.16	2.99	2.72
8	Remittances	2.96	2.92	2.94
9	Other sources	4.27	7.31	6.30
	Total	**100.00**	**100.00**	**100.00**

Source: Calculated from Table 1

Table 2 further shows that hiring out labour in agriculture makes up only 15.12 per cent of the marginal farmers' income and 7.08 per cent for the small farmers. This supports broader evidence from rural India that smallholder farming, unless supplemented by high-value crops or irrigation, remains marginally profitable. Further, milk and milk products contribute 15.73 per cent for the marginal farmers and 11.69 per cent for the small farmers. This indicates a slightly better asset base or access to market-oriented dairy farming among marginal landholders. Income from salaries, surprisingly, forms a more substantial share of income for the small farmers the (15.89 per cent) compared to only 6.31 per cent for the marginal farmers. This anomaly may reflect employment in off-farm services or rural schemes such as National Rural Employment Guarantee Act (NREGA), or access to low-grade salaried jobs in nearby towns. The small farmers also have a higher share from hiring out agricultural machinery (6.22 per cent), reinforcing their active participation in mechanized labor markets, either through ownership of equipment or labor contracting. The marginal farmers earn 2.16, 2.96, and 4.27 per cent, respectively, from pensions, remittances, and other sources, which shows the diversified economic base of marginal farm households.

5.3 Per Capita Income: Table 3 presents per capita annual income for both the marginal and small farmers across major income sources. The data reveals that the marginal farmers report a per capita income of ₹24,334.94.16, whereas small farmers earn a significantly high (₹37,640.37) annually. This trend reaffirms earlier observations that small farmers—despite higher landholdings—adopt more diversified and often labour-intensive livelihood strategies, which result in higher income generation per family member.

The largest share of per capita income for marginal farmers comes from farm business income (₹6,628.87) and livestock-related earnings (₹5,725.07). These are followed by milk and milk products (₹3,825.69), indicating that animal husbandry is a core income-generating activity. In contrast, the small farmers earn ₹11,116.03 per capita from farm business, ₹6,159.68 from livestock. Notably, income from hiring out labour contribute ₹3,679.83 per capita among the marginal farmers and ₹2,665.29 for the small farmers, further confirming the secondary role of agriculture in total household earnings.

Another critical observation is the large difference in salary-based income, where the marginal farmers earn ₹1,537.61 per capita, while the small farmers earn only ₹5,978.26. This suggests that small farmer households have higher representation in service sector jobs or government employment schemes, reflecting perhaps higher levels of migration, employment under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), or skilled labour participation. The small farmers benefit more from hiring out agricultural machinery and equipment (₹2,343.89) than marginal farmers (₹650.81), indicating access to productive capital such as tractors or tillers used for commercial purposes. Income from remittances (₹718.96) and pensions

(₹1,101.98) are modest but vital, serving as buffers during agricultural off-seasons or in times of economic stress.

Table 3: Per Capita Income of Marginal and Small Farmers

(Rs. Per Annum)

S. No.	Source of Income	Marginal Farmers	Small Farmers	All Sampled Farmers
1	Farm business income	6628.87	11,116.03	9,174.68
2	Milk and milk products	3,825.69	4,396.85	4,151.43
3	Livestock	5,725.07	6159.68	5,974.52
4	Hiring out labour in agriculture	3679.83	2665.29	3107.16
5	Hiring out agricultural machinery and equipment	650.81	2,343.89	1,610.34
6	Salaries	1,537.61	5,978.26	4,054.19
7	Pensions	527.78	1,125.65	866.78
8	Remittances	718.96	1,101.98	936.35
9	Other sources	1,040.32	2,752.74	2,011.02
	Total	**24,334.94**	**37,640.37**	**31,886.47**

Source: Calculated from actual entries in the income and household size data in the 2022–23 Field Survey

5.4 Distribution of Household Income:

The distributional data of household income in table 4 shows a gradual but uneven accumulation of income among the bottom segments of the population. Among marginal farmers, the bottom 10 per cent of households account for only 2.31 per cent of the total income, while the cumulative share increases to 7.02 per cent for the bottom 20 per cent. The first 50 per cent of households collectively hold only 27.90 per cent of the total income, implying that the remaining half of the population enjoys over 70 per cent of income—indicative of moderate-income inequality, with a Gini coefficient of 0.23, suggesting moderate but notable income disparity. In the case of small farmers, the pattern is slightly more equitable. The bottom 10 per cent account for 2.63 per cent of total household income, and the bottom 50 per cent earn 29.71 per cent, which is higher than the corresponding share among marginal farmers. This more equitable distribution is further reflected in a slightly highly Gini coefficient of 0.28, showing that income among small farmers is more unevenly distributed than in the marginal farm category. However, the cumulative income share only begins to accelerate significantly beyond the 60th percentile, pointing to a concentration of income among the top 30–40 per cent of households.

In the case of all sampled farmers, the bottom 10 per cent household account for 2.32 per cent of income and bottom half account for 27.61 per cent, leading to a higher Gini coefficient of 0.26, indicating that income inequality across the entire sample population is slightly greater than within each sub-category. This is likely due to the structural disparities between marginal and small farmers themselves, which introduces an additional layer of inequality when the categories are merged.

These findings shows a shift in focus from solely asset-based classifications to more multidimensional poverty indicators such as factor in income variability, dependency ratios, and employment diversification. Bridging the intra-group inequalities, especially among marginal farmers, should be a priority for rural development programs and state welfare schemes.

Table 4: Distribution of Household Income of Marginal and Small Farmers

(Cumulative Percentage of Household Income by Decile)

Cumulative Per cent of Households	Marginal Farmers	Small Farmers	All Sampled Farmers

10	2.31	2.63	2.32
20	7.02	7.47	6.83
30	13.04	13.72	12.44
40	19.81	21.05	19.40
50	27.90	29.71	27.61
60	36.70	39.23	36.29
70	47.39	50.27	46.78
80	59.91	63.08	59.26
90	75.10	78.15	74.42
100	100.00	100.00	100.00
Gini Coefficient	**0.23**	**0.28**	**0.26**

Source: Derived from Household Survey Data, 2022–23

5.5 Distribution of Per Capita Income: Table 5 provides a decile-wise distribution of per capita income among the marginal and the small farmers, along with their cumulative shares and associated Gini coefficients, to quantify income disparity at the individual level. The data shows that per capita income inequality is more pronounced than household income inequality across both marginal and small farmer categories. Among marginal farmers, the bottom 10 per cent of the population captures just 2.74 per cent of the total per capita income, while the cumulative income share of the bottom 20 per cent stands at 7.27 per cent. The bottom 50 per cent of individuals within marginal farmer households account for only 25.74 per cent of total per capita income. The concentration intensifies in the upper deciles, particularly the top 20 per cent, underscoring a skewed per capita income distribution. The Gini coefficient of 0.24 confirms a moderate level of inequality among the marginal farmers when analyzed at the individual level, slightly higher than their household-level Gini value.

The small farmers exhibit a similar trend, albeit with slightly improved equity. The bottom 10 per cent receive 2.50 per cent, and the bottom 50 per cent accumulate 25.51 of total per capita income. This is further confirmed by a Gini coefficient of 0.27, which is higher than that of marginal farmers; indicates unbalanced income spread among individuals within small farmer households.

The bottom 10 per cent of all sampled farmers account for only 2.42 per cent of per capita income, while the bottom half commands just 24.33 per cent. The Gini coefficient for this group stands at 0.26, indicating that the inter-group disparity (between marginal and small farmers) contributes significantly to overall inequality. The increased concentration of income in the top 20 per cent of individuals across all groups points toward a systemic asymmetry in access to income-generating opportunities, whether through land, livestock, employment, or external remittances.

Table 5: Distribution of Per Capita Income of Marginal and Small Farmers— Category-wise
(Cumulative Percentage of Per Capita Income by Population Decile)

Cumulative Per cent of Persons	Marginal Farmers	Small Farmers	All Sampled Farmers
10	2.74	2.50	2.42

20	7.27	6.56	6.44
30	12.51	12.00	11.28
40	18.48	18.16	17.47
50	25.74	25.51	24.33
60	33.61	33.73	32.03
70	43.09	43.88	41.28
80	54.99	56.04	53.11
90	68.66	71.02	67.72
100	**100.00**	**100.00**	**100.00**
Gini Coefficient	**0.24**	**0.27**	**0.26**

Source: Derived from Field Survey Data, 2022–23

This analysis shows that per capita income inequality remains a persistent challenge, particularly among small farmers. It reflects various issues related to labour allocation, access to secondary incomes, and household dependency burdens. Policymakers must therefore promote balanced intra-household income distribution and social welfare targeting at the individual level to achieve equity and enhance rural well-being.

6.0 Policy Implications

The findings of this study carry important policy implications for improving the livelihoods of marginal and small farmers in the Jammu region. Since household income and per capita income are directly related to farm size and agricultural productivity, policies should prioritize land consolidation, cooperative farming, and efficient land-use practices to overcome the limitations of fragmented holdings. Expanding access to credit, crop insurance, and modern farm technologies can help farmers reduce risks and increase productivity. Given that farm business income and livestock are the major income sources, the government should promote integrated farming systems, strengthen veterinary services, and facilitate market linkages for dairy and livestock products. Furthermore, diversification into high-value crops, horticulture, and allied activities must be encouraged through training and extension services. Non-farm employment opportunities such as rural enterprises, skill development, and agro-based industries should also be expanded to provide supplementary income. Strengthening rural infrastructure, particularly irrigation facilities, storage, and transportation networks, can reduce post-harvest losses and improve market access. Digital platforms and farmer producer organizations (FPOs) should be promoted to enhance bargaining power and ensure fair prices. Subsidies and incentives for adopting sustainable farming practices will further support long-term income stability. Overall, these policy measures can help raise farm incomes, reduce rural poverty, and ensure inclusive economic development in the region.

7.0 Conclusions

In light of these findings, it is concluded from the above analysis that there is positive relationship between farm size and income levels. As farm size increases, average income of the sampled farm households also increases. The total average household income for all sampled farmers stood at ₹1,54,968.49 per annum, with marginal farmers earning ₹1,16,564.52 and small farmers earning a higher mean income of ₹1,85,190.74. However, when adjusted for household size, the per capita income of the marginal farmers stood at ₹24,334.94, compared to ₹37,640.37 for the small farmers, highlighting the efficiency of diversified income strategies often employed small households. The analysis emphasizes the need for regionally differentiated and category-sensitive interventions. For districts like Kishtwar, where geographic isolation impedes access, the focus must be on rural infrastructure development, livestock-based livelihoods, and microfinance accessibility. In contrast, Reasi and Kathua can benefit from scaling up dairy cooperatives, mechanization services, and promoting rural entrepreneurship through targeted government schemes. A shift towards integrated livelihood frameworks—

blending agriculture, allied sectors, and rural employment guarantees—can improve not only income levels but also economic resilience and social equity.

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