

# INCOME INEQUALITIES AMONG FARM HOUSEHOLDS IN HOSHIARPUR DISTRICT OF PUNJAB

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*The main objective of this present paper is to examine the inequalities in the levels, pattern per household and per capita income among the different farm households in the rural area of Hoshiarpur district of Punjab. Gini coefficients and Lorenz curve have been used to show the clear picture of income disparities among farm households. The study concluded that the gap in the levels of income between the marginal and the large farmers is increasing day by day. Majority of marginal and small farmers are living in vulnerable conditions. They are failed to meet their basic requirements due to low income earnings from agriculture sector. The annual income of average large farm households is 9.37 times greater than the annual income of the marginal farm households. The average household income and per capita income is directly associated with the farm-size in the rural of Hoshiarpur district of Punjab. The study suggest that the socio-economic conditions of farm households could be improved by the commercialisation of agriculture sector, cooperative farming and by providing the proper price of their crops.*

**Keywords:** Punjab; Farm Households; Income Inequality; Gini Coefficient

## INTRODUCTION

Inequality in the world has many dimensions. Each dimension has its own story. Some countries are worse in one dimension whereas better in others. There are inequalities in health, in access to education and in political voice. These inequalities have been partially responsible for slow growth in the country. The most famous economist Joseph E. Stiglitz studied the concept of growing inequality in the world in his book "The Great Divide". This book was based upon the analysis of United States. Stiglitz says that inequality is a choice and it is the cumulative result of unjust policies and misguided priorities. The study clearly explained the extent of growing inequality by giving a statement, "of the 1 per cent, by the 1 per cent, for the 1 per cent". The top of 1 per cent of the world billionaires has as much wealth as the bottom half of its population. The level of inequality is not inevitable; it is not the result of inexorable laws of economics. It is a matter of policies and politics (Stiglitz, 2015).

Inequality in India is very complex and diversified. During the last 50 years inequalities in income and consumption expenditure of households have been increasing in both rural as well as urban India. In the pre-reform period the inequality seems to have declined a bit within rural area from the late 1950s to the early 1990s; it then rose considerably in the post-reform period. In case of Punjab inequality in Income as well as in consumption also increased sharply after 1990s (Das & Pathak, 2012).

The process of transformation of Punjab agriculture from a traditional to a modern has brought in its wake new opportunities for investment in agriculture because of the high rate of return to

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such investment. While, ushering in rapid agriculture growth, the green revolution has given rise to problems arising out the distribution of its benefits. Various studies showed that the inequalities of income among different farm households were increased during the mid-sixties. After the green revolution the big farmers have gained considerably from new technology ushered in by the green revolution. From green revolution few large farmers were more benefited as compared to small and marginal farmers thus results increase income inequalities between large and marginal farmers (Saini, 1976).

Punjab is one of the productive states of the India. More than 60 per population of Punjab is living in rural area and directly or indirectly depending upon the agricultural activities. After green revolution the uses of chemical fertilizers, new variety of seeds and the use of new mechanical implements have increased. It creates income disparities among different regions and within the farm households. At the time of green revolution only large and medium farmers households were benefited. In the case of these farm households, a major part of income comes from farm business income, but due to low ownership of land and income level, the participation of small and marginal farmers in High Yield Variety is low. Farm business income is not sufficient to fulfill the basic needs of their families and they earn a small part of income from non-agriculture activities (Kaur, 2017).

The performance of agricultural sector has been the most important source for income of the people of Punjab. Rural households earn their incomes from various sources including cultivation, livestock, agricultural wage labour and other non-farm occupations. Income from agriculture is largely related to land ownership and since land distribution is highly unequal in India as resulted there is high level of disparities in the income among rural households. But unequal access to non-farm economic opportunities is the main reason of income inequality of rural households (Ranganathan *et. al.*, 2016).

## METHODOLOGY

The present study is based on the primary data has been collected with the help of schedule from sampled households selected through multi-stage sampling technique. In the first stage, Hoshiarpur district has been selected on the basis of two parameters highest literacy rate and highest sex ratio. In the second stage, out of 10 development blocks of Hoshiarpur district only three development blocks have been selected on the basis of geographical conditions namely, Tanda has been selected from plain area, Talwara from mountain area and Bhunga from mixture of both plain and mountain area. At the third stage, one village has been selected at each development block and in totality three villages have been selected. At the last stage of sampling, 200 sampled households have been selected from the selected villages.

## RESULTS AND DISCUSSION

The mean value of income earned from different sources by the farm sampled households is given in Table 3.1. The results showed that an average sampled farm household earned Rs. 2,63,786 per annum. The income from agricultural and non-agricultural activities is Rs. 2,19,278 and Rs. 44,508 respectively. The table further shows that an average value of total income is Rs. 9,83,333, Rs. 5,11,467, Rs. 3,18,563, Rs. 1,84,407 and Rs. 1,04,922, among the large, medium, semi-medium, small and marginal farm households respectively. The data clearly showed that as the farm size decreases, the average value of income of farm households also decreases. The results highlight that among farm households, farm business income is the most important source of farm income

followed by income from horticulture and vegetables, milk and milk products, salaries and pensions. The average income from these sources stood at Rs. 1,23,867, Rs. 52,056, Rs. 22,978, Rs. 13,111 and Rs. 9,589 respectively.

**Table 3.1: Per Household Average Income of Farm Sampled Households (in Rs.)**

Sources of income	MF	SF	SMF	MEDF	LF	AFSHs
Farm business	49793	91667	145563	240000	433333	<b>123867</b>
Milk & milk product	12586	17333	30938	40667	43333	<b>22978</b>
Horticulture	6207	31667	65625	116667	283333	52056
Forestry	1724	5667	12188	14667	26667	<b>7756</b>
Sale of livestock	1759	1296	3000	8800	3333	<b>3067</b>
Rent from Leased out Land	862	5000	12500	26667	30000	<b>9444</b>
Hiring out Agrl. Labour	345	0	0	0	0	<b>111</b>
Sub total	73276	152630	269813	447467	820000	219278
Govt emp.	9655	8889	15000	34000	60000	<b>16111</b>
Private emp.	6897	6296	8750	8000	0	<b>7000</b>
Artisan work	0	0	0	0	0	<b>0</b>
Wage work	2069	0	0	0	0	<b>667</b>
Remittances	2931	7778	8125	11333	60000	<b>8611</b>
Pensions	8448	5111	15000	8000	40000	<b>9589</b>
MGNREGS	77	0	0	0	0	<b>25</b>
Trader	0	0	0	0	0	<b>0</b>
Others*	1569	3704	1875	2667	3333	<b>2506</b>
<b>Sub total</b>	<b>31646</b>	<b>31778</b>	<b>48750</b>	<b>64000</b>	<b>163333</b>	<b>44508</b>
<b>Total</b>	<b>104922</b>	<b>184407</b>	<b>318563</b>	<b>511467</b>	<b>983333</b>	<b>263786</b>

Source: Field Survey, 2017-18.

MF=Marginal Farmers, SF=Small Farmers, SMF=Semi-Medium Farmers, MEDF=Medium Farmers, LF = Large Farmers AFSHs=All Farm Sampled Households

Others\*- Religious work, Sales and Exchange of assets, Income from commercial vehicles etc.

Farm business income is the highest (Rs. 4,33,333) for large farm households followed by medium, semi-medium, small and marginal farm households with the respective value of Rs. 2,40,000, Rs. 1,45,563, Rs. 91,667 and Rs. 49,793. Income earned from horticulture and vegetables is the second important source of income for farm households. The other sources such as income from forestry, rent from leased out land and sale of livestock also contribute in the income of farm households. The results showed that farm households expect marginal farmers do not show their tendency to do wage work because they consider wage work as against their social status. The annual income of average large farm households is 9.37 times greater than the annual income of the marginal farm households. The results prove that the income inequalities among large and other farm households are increasing over period of time.

The pattern of household income earned of different components among farm and non-farm

households are elaborated in Table 3.2. The result highlights that out of the total income, an average farm sampled household received more than 80 per cent of their income from agricultural activities which shows their dependence on agricultural activities in the rural area of Hoshiarpur district of Punjab. Income earned from farm business is the highest (49.71 per cent) for small farm households whereas, it is the lowest (44.07 per cent) in the case large farm households. Income earned from milk and milk products is next important source of agricultural income which accounts for 8.71 per cent of the total income of farm households. Out of the total income, the share of other sources such as income from forestry, rent from leased-out land and sale of livestock found to be only 2.94, 3.58 and 1.16 per cent respectively

**Table 3.2: Pattern of Household Income among Farm Sampled Households (in percentage)**

Sources of Income	MF	SF	SMF	MEDF	LF	AFSHs
Farm business	47.46	49.71	45.69	46.92	44.07	<b>46.96</b>
Milk & milk product	12	9.4	9.71	7.95	4.41	<b>8.71</b>
Horticulture	5.92	17.17	20.6	22.81	28.81	<b>19.73</b>
Forestry	1.64	3.07	3.83	2.87	2.71	<b>2.94</b>
Sale of livestock	1.68	0.7	0.94	1.72	0.34	<b>1.16</b>
Rent from Leased out Land	0.82	2.71	3.92	5.21	3.05	<b>3.58</b>
Hiring out Agrl. Labour	0.33	0	0	0	0	<b>0.04</b>
<b>Sub total</b>	<b>69.84</b>	<b>82.77</b>	<b>84.7</b>	<b>87.49</b>	<b>83.39</b>	<b>83.13</b>
Govt emp.	9.2	4.82	4.71	6.65	6.1	<b>6.11</b>
Private emp.	6.57	3.41	2.75	1.56	0	<b>2.65</b>
Artisan work	0	0	0	0	0	<b>0</b>
Wage work	1.97	0	0	0	0	<b>0.25</b>
Remittances	2.79	4.22	2.55	2.22	6.1	<b>3.26</b>
Pensions	8.05	2.77	4.71	1.56	4.07	<b>3.64</b>
MGNREGS	0.07	0	0	0	0	<b>0.01</b>
Trader	0	0	0	0	0	<b>0</b>
Others	1.5	2.01	0.59	0.52	0.34	<b>0.95</b>
<b>Sub total</b>	<b>30.16</b>	<b>17.23</b>	<b>15.3</b>	<b>12.51</b>	<b>16.61</b>	<b>16.87</b>
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Field Survey, 2017-18.

The table further shows that farm households are earned 16.87 per cent of their total income from non-agricultural activities. The salaries, pensions and remittances are the major source of non-agricultural income of the farm households. Their relative share in the total non-agricultural income is 6.11, 3.64 and 3.26 per cent respectively. The share of other sources such as income from artisan's work, wage work, MGNREGS and others are only about 1 per cent.

The level of per capita income of farm sampled households is presented in Table 3.3. The results showed that an average farm household received per capita income of Rs. 48,950 annually. Whereas, the average per capita income of small, marginal, semi medium, medium and large farm households is

Rs. 21,278, Rs. 31,119, Rs. 63,713, Rs. 95,900 and Rs. 1,34,091 respectively. The per capita income earned from horticulture and vegetables are the highest (Rs. 38,636) for large farm households whereas, it is the lowest (Rs. 1,259) in the case of marginal farm households. The results further revealed that as farm size decreases, family size and per capita income of various farm households also decreases.

**Table 3.3: Levels of Per Capita Income of Farm Sampled Households (in Rs.)**

<b>Sources of Income</b>	<b>MF</b>	<b>SF</b>	<b>SMF</b>	<b>MEDF</b>	<b>LF</b>	<b>AFSHs</b>
Farm business	10098	15469	29113	45000	59091	<b>22986</b>
Milk & milk product	2552	2925	6188	7625	5909	<b>4264</b>
Horticulture	1259	5344	13125	21875	38636	9660
Forestry	350	956	2438	2750	3636	<b>1439</b>
Sale of livestock	357	219	600	1650	455	<b>569</b>
Rent from Leased out Land	175	844	2500	5000	4091	<b>1753</b>
Hiring out Agrl. Labour	70	0	0	0	0	<b>21</b>
Sub total	14860	25756	53963	83900	111818	<b>40691</b>
Govt emp.	1958	1500	3000	6375	8182	<b>2990</b>
Private emp.	1399	1063	1750	1500	0	<b>1299</b>
Artisan work	0	0	0	0	0	<b>0</b>
Wage work	420	0	0	0	0	<b>124</b>
Remittances	594	1313	1625	2125	8182	<b>1598</b>
Pensions	1713	863	3000	1500	5455	<b>1779</b>
From MGNREGS	16	0	0	0	0	<b>5</b>
Trader	0	0	0	0	0	<b>0</b>
Others	318	625	375	500	455	<b>465</b>
Sub total	6418	5363	9750	12000	22273	8259
Total	21278	31119	63713	95900	134091	48950

Source: Field Survey, 2017-18.

The per capita income of the large farm households is 6.30 times more than the per capita income of marginal farm households and it is 4.30 more than the per capita income of small farm households, which clearly showed that there is high degree of inequality exists across large, small and marginal farm households.

## Household Income Distribution

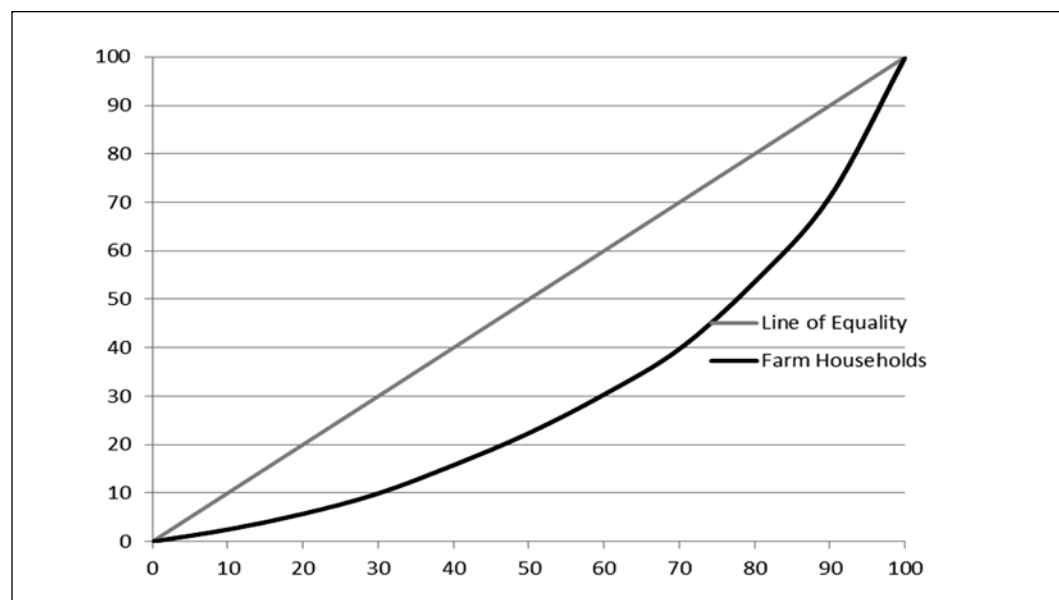
Table 4.1 explains the inequalities in the distribution of total income across the various farm sampled households in the rural area of Hoshiarpur district. Gini coefficient ratio is a tool mainly used to measure the degree of inequalities. The highest value of Gini-coefficient ratio indicates highest degree of inequalities.

**Table 4.1: Distribution of Household Income of Sampled Households**

<b>Cumulative Percent-age of House-holds</b>	10	20	30	40	50	60	70	80	90	100	<b>Gini-co-efficients</b>
<b>Farm House-holds</b>	2.45	5.69	10.01	15.63	22.51	30.59	40.61	54.25	71.42	100	<b>0.3937</b>

Source: Field Survey, 2017-18.

The value of Gini coefficient is 0.3937 for farm households. Overall top 10 per cent of farm sampled households enjoyed 28.58 per cent of the total income. On the contrary side, the bottom 10 per cent share is only 2.45 per cent of total income. The percentage share of income of bottom 10 per cent is almost 11.66 times lower than the income earned by the top 10 per cent of farm sampled households.

**Figure 1 : Inequality in Income among Farm Sampled Households Showing by Lorenz Curve**

Lorenz curve has great utility in the study of degree of inequality in the distribution of income and wealth. By viewing the respective Lorenz curve, it is observed that income inequalities are more serious in the case of farm households.

## CONCLUSION

Inequalities in the income caused the greater disparities in the living standard of rural households in India as well as in Punjab. The observation from field survey and recent literature shows that the

gap in the levels of living between the weaker sections and the rich elites is increasing day by day. The annual income of average large farm households is 9.37 times greater than the annual income of the marginal farm households. The percentage share of income of bottom 10 per cent is almost 11.66 times lower than the income earned by the top 10 per cent of farm sampled households. For the equal and sustainable development there is greater need to address the issues related to inequality.

## POLICY IMPLICATIONS

Income inequalities are the basic outcome of wage differentials and unequal distribution of productive assets. Inequalities in the distribution of these productive assets lead disparities in the income and consumption expenditure of the farm households. Efforts should be made to increase the level of income among marginal and small farm households by providing the proper price of their crops, by providing debt at low rates of interest, subsidising the agricultural seeds and other inputs. Whereas, fixing the minimum support prices, total cost of agricultural and income earnings of marginal and small farmers should be taken in to account. The quality of fertilizers and seeds should be checked time to time by the agricultural department. It will be helpful to increasing the productivity which results increase in income earnings of marginal and small farmers. It will also helpful to reduce the inequalities between marginal and large farm households. The idea of doubling farmer's income by 2022 can only be possible by sustainable agricultural development.

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