Income, Expenditure and Saving Pattern of Peasantry in Punjab

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ABSTRACT

The present study covered 270 respondents. Multistage sampling technique was adopted to collect relevant data. The results showed that the agricultural revolutions had a significant impact on agricultural labourers' incomes, but the farmers' incomes increased more significantly. In order to meet the economic turning point, agricultural labour wages did not increase sufficiently. Farm workers are compelled to take out loans during the lean season at rates below market value in order to pay for their future services. Demand for labour decreased overtime due to more capital-intensive agriculture and there is no significant industrial hub that might accommodate extra farm labourers. There is also no work during the off-season because farm operations are seasonal. As a result, the working class's income is reduced, which pushes more people below the poverty line. The major source of income for farm labourer is the casual and contractual work with approximately 30 per cent of the total income and the much-hyped central employment scheme MGNRGA contributes only 6 per cent. On an average ₹10616 was the monthly income and ₹11493 was the expenditure of agricultural labourer. The drug and medical expenses were making big toll on farm labourer. There was less income inequality among the farm households then higher income groups with Gini ratio /coefficient of 0.25 per cent. There was a negative average propensity to saving. It was concluded that effective oversight of this MGNRGA is required. To address the current and changing nature of agriculture's labour and wage structures there is need to create and amend regulations.

Key Words: Agricultural labour, Income, Consumption, MGNRGA, Gini Ratio.

INTRODUCTION

The provision of food for the population, expansion of exports, transfer of labour to non-agricultural sectors, contribution to capital formation, and security of markets for industrialization are the ways that agriculture contributes to economic development (Tejwani and Boopathi, 2019). Over the past few years, Punjab's agriculture industry has started to slow down. From 2007–2008 to 2013–2014, the agriculture sector growth rate remained far below 2 per cent, turning negative in 2009–2010 and 2012–2013 (Anonymous, 2019).

Since the Green Revolution began in the middle of the 1960s, Punjab's agriculture has seen considerable structural changes (Satish, 2006). With only 2.5 per cent of the country's arable land, Punjab produces around 18 per cent of the nation's wheat, 11 per cent rice, 5 per cent cotton, 10 per cent milk, 20 per cent honey, and 48 per cent mushrooms. In the state, food grain production Increased from 11.71 MT in 1980–1981 to over 31.66 MT in 2017–18. According to a recent study, out of 9.9 million workers in Punjab, 35.6 per cent were employed in the agricultural sector as either cultivators or agricultural labourers (Singh and Bhogal, 2020). Agricultural labourer played important role in the development of agricultural sector. The process of farming with new production methods has increased the farmers' financial needs. The Punjabi peasantry, particularly the small farmers, were unable to finance agricultural investments out of their own money in order to convert traditional agriculture into scientific farming (Singh and Toor, 2005).

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There is note-worthy increase in agricultural wages in recent times due to many factors like development of non-farm employment sector, surge in payments for migrant labourer, introduction of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and high reservation wages (Kaur and Kaur, 2020). The practice of rising wages and labour shortage is uneven across the states. The escalating wages have severe implications for the farm sector. It is certain that the technical aspects such as cropping intensity, cultivated area, higher use of inputs, etc. increased labour usage while automation and utilization of chemicals specially herbicides significantly reduced employment (Kaur et al, 2022). The relationship of these factors declined the agriculture labour requirements in agricultural operations. In reply to mounting wages, there is improved farm mechanisation which shifts cropping pattern from labour intensive to labour saving (Singh and Singh, 2016).

The rural economy also practiced these changes in terms of escalating real wages, increased rural-urban migration, labour scarcity for farming, enlarged non-farm incomes compared to farm incomes, better share of non-farming in both employment and income, increasing input costs including labour cost and broader acceptance of farm mechanisation. The use of hired labour depends upon the nature of crops grown, size of holding, level of technology adopted, supply of farm labour etc. (sharma, 2016). The tendency of labour to employing themselves on permanent basis is decreasing due to high daily wage allurements, during the peak season. Farm labourer was facing crises of financial exclusion due to less saving. Income inequalities among the agricultural labourers is not as severe as in higher income groups of society. This study was conducted to analysis the current situation of peasantry and to formulate polices accordingly.

MATERIALS AND METHODS

Primary data collection

The primary data were collected in the time period of 2019-20. Multistage sampling technique was adopted to collect the relevant data from all the zones as the agro climate affects the economic conditions of the people living in these zones differently. In the process, three districts from each zone according to census population of agricultural labourer and cropping pattern of the region were taken. Hoshiarpur from zone I, Amritsar from zone II and Ferozepur from Zone III. The selection of blocks was done at random from the list of 122 blocks as per the ranking by Economic and Statistical Organization (ESO), Punjab. Nine blocks were selected, three from each district. One village from each block was selected at random. To analyze the nature and extent of rural labour, a complete agriculture labour household census survey of the selected nine villages was prepared. The total number of households, in all the 9 villages, comes out to be 1520. All the agricultural labour households were studied with the help of village Sarpanch. As of total, 270 respondents were randomly selected for the study, 30 from each village.

Analytical tools

Formulation of labour days for different gender and age group

Labour days of women and children are converted into man days equivalents by using standard conversion factors of 0.67 and 0.50, respectively (Sidhu and Grewal, 1990). All the labourers (male or female) below the 14 years were enumerated as a child labour.

Measuring of inequality in income and consumption

Deciles Groups: Per household income and consumption of the agricultural labourers were arranged in-ascending order and the divided into ten classes containing 10 per cent of each sample. These classes were denoted as deciles, showed the concentration of income and consumption among the different groups of labourers.

Lorenz Curve Comparison: It is the graph showing the percentage of income earned by the percentage of the agricultural labourers. These curves were plotted by taking the cumulative percentage of households as shown on the OX-axis, whereas the percentage of income is given on the OY-axis. For the comparison of income and

Table 1. Source of income from the farm labour households in Punjab (₹ Per Month)

Particulars	Zone I		Zone II		Zone III		Punjab	
	Amount	percentage	Amount	percentage	Amount	percentage	Amount	percentage
Casual and contractual labour	3609	41	2656	26.02	3112	26.02	3126	29.44
Permanent labour/crop sharing bases	1449	16	1998	19.58	2153	19.58	1867	17.58
Other family member income	2022	23.02	2638	25.85	2226	25.85	2295	21.62
MGNRGA	30	0.35	73	0.72	1953	0.72	686	6.46
Dairy/livestock/poultry	663	7.55	596	5.84	560	5.84	606	5.71
Social security	36	0.41	66	0.64	363	0.64	155	1.46
Non-farm income	189	2.16	1342	13.15	1646	13.15	1059	9.98
Ad-hoc income	782	8.91	833	8.16	840	8.16	818	7.71
Total income	8785	100	10205	100	12857	100	10615	100

Table 2. Income variation of agricultural labour households of Punjab.

Region	Average income (₹/ year)	Standard deviation	Coefficient of variation
Zone I	105420	3698	34.29
Zone II	122469	4813	39.99
Zone III	154284	10046	67.58
Punjab	127391	6758	54.23

consumption. These curves were drawn in the different zones and in different categories for agricultural labour.

Co-efficient of variation: co-efficient of variation was derived by the following formula

$$C.V = \sigma/X \times 100$$

Where C.V = coefficient of variation

σ = Standard deviation

The diagonal line is the equal distribution line, that indicates the equal percentage of labourers receiving the equal income and consumption, but the difference from this diagonal line indicates the variation of income and consumption among these sections of population. The curve close to the diagonal line indicates the minimum inequality in distribution of income and consumption and the curve away from the diagonal line indicates the greater inequality. The area between the lines of equal distribution and the curve of concentration called the area of concentration. It is the degree of concentration. The larger of this area will mean more of inequality in the distribution of income and consumption. The more of the distance of Lorenz curve from the line of equal distribution would mean the more concentration of income and consumption in a few households.

RESULTS AND DISCUSSION

The data depicted the average monthly income from different sources of the agricultural labour households in Punjab. It was observed that, the income from permanent labour and crop sharing was ₹1867 per month. In respect of zones ₹1449, ₹1998 and ₹2153 being earned in zones I, II and III, respectively by the farm labourers. The average monthly income was higher in Zone III and minimum in Zone I. Income from casual and contractual labour was highest among all the sources of income for farm labour. As most of the labourers performing casual and contractual

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Table 3. Consumption expenditure of agricultural labour in Punjab (₹/ year)

Category	Zone I	Zone II	Zone III	Punjab
Cereals	3253	3666	3775	3565
Pulses	3731	3510	4567	3940
Vegetable	4982	6731	8108	6600
Edible oils	6643	5936	6175	6262
Beverages	364	326	252	315
Opium, liquor, etc.	10147	13244	7363	10246
Fish, meat, eggs, etc	3276	4039	4916	4075
Sugar and Gur (Jaggery)	4368	3973	3379	3914
Fruits	1001	1244	2433	1558
Spices	2346	3046	2763	2716
Milk and milk products	16608	17274	20131	18014
Packed food/candy, snakes	510	1041	1584	1042
Sweets	273	473	1165	636
Food item total (A)	57501	64503	66610	62881
Clothing	2412	3122	6929	4149
Education	1138	1561	3705	2131
House rent	59	0	699	253
Fuel/gas	1879	2076	2018	1992
Electricity bill (summer)	9100	7095	10252	8835
Electricity bill (winter)	3640	2933	3495	3364
Conveyance	7326	8798	9036	8384
Health care	19110	23650	16986	19910
Ad-hoc expenditure	6825	8514	10513	8612
Footwear	819	473	699	667
Social ceremony	6274	5676	8388	6787
Repayment of debt	8190	9460	4380	7347
Misc. (Mobile, TV recharge etc.)	2730	2129	2936	2604
Non-food items total (B)	69501	75486	80036	75034
Total expenditure (A+B)	127002	139989	146646	137915
Ginni ratio	0.22	0.20	0.26	0.23

labour, they earned 3126 monthly. In respect of three agro-climatic zones the labourers were earning maximum in Zone I (₹3609) followed by Zone III (₹3112) and Zone II (₹2656) respectively. It was found that a significant percentage i.e. 21.62 percent was contributed by the member other than main earner in the household income. Zone-wise observation stated that ₹2022, ₹2638 and ₹222 earned in zones I, II and III, respectively.

Zone-wise per household variation of

Table 4. Surplus household income in different zones of Punjab (₹/month)

Particular	Zone I	Zone II	Zone III	Punjab
Income	8785.02	10205.79	12857.05	10615.95
Expenditure	10583.49	11665.76	12220.46	11492.93
Surplus/saving	-1798.47	-1459.97	636.59	-876.97
APC	120.47	114.31	95.05	108.26
APS	-20.47	-14.31	4.95	-8.26

Table 5. Concentration of household income in different zones of Punjab

Deciles Group	Zone I	Zone II	Zone III	Punjab
10	19.23	17.72	21.54	20.18
20	33.33	31.65	36.92	33.94
30	44.87	43.04	47.69	45.87
40	55.13	53.16	58.46	56.88
50	65.38	62.29	69.23	66.97
60	74.36	60.41	76.92	75.69
70	82.05	69.87	84.62	82.57
80	89.74	79.72	92.31	90.37
90	94.74	93.67	98.46	96.33
100	100	100	100	100
Gini Ratio	0.222	0.190	0.303	0.247

income of agricultural labourers was presented in table 2. To compare the variation in income of labourers, the coefficient of variation was computed which was found to be 54.23 per cent which showed that variation of income of the farm labourers was reasonably high. The highest coefficient of variations found to be in Zone III followed by Zone I and Zone II. The reason behind this was the variation in economic development among the zones.

The relative share of consumption indicates the level of development of farm labourers. In the developed societies, the relative share of expenditure on the food item was minimum whereas it was maximum on the items of the comfort and luxuries whereas reverse to this happened in low-income groups.

This segment deals with the expenditure pattern on different agro-climatic zones of Punjab as shown in table 3. It was clear that a large share of expenditure was incurred on non-food items in all the zones individually as well as state level. In term of magnitude an average farm household in the state spent ₹137915 per annum for consumption purposes. Out of this, ₹62881was spent on food item and ₹75034 spent on non-food items. Amongst the food items, it was shocking to observe that ₹10246 was spent on the drugs i.e. opium, liquor, medicinal drugs etc. The zone-wise analysis of this aspect revealed that the farm laborer's household of Zone III spent the highest amount as consumption expenditure with ₹146646 whereas the farm households of Zone I spent the minimum amount with ₹127002. Among the food items, the expenditure on milk accounted highest on food items in all zones. Overall, the expenditure of farm labourers remains equal among zones due to equality in the employment opportunities. Ginni ratio for zone I recorded as (0.22) followed by for zone II (0.20) and zone III (0.26) represents the equality among the zones for consumption expenditure.

It is essential to establish a shared platform where one can readily learn about revenue, expenses, and surplus savings in order to do a comparison analysis as can be seen in table 4. The

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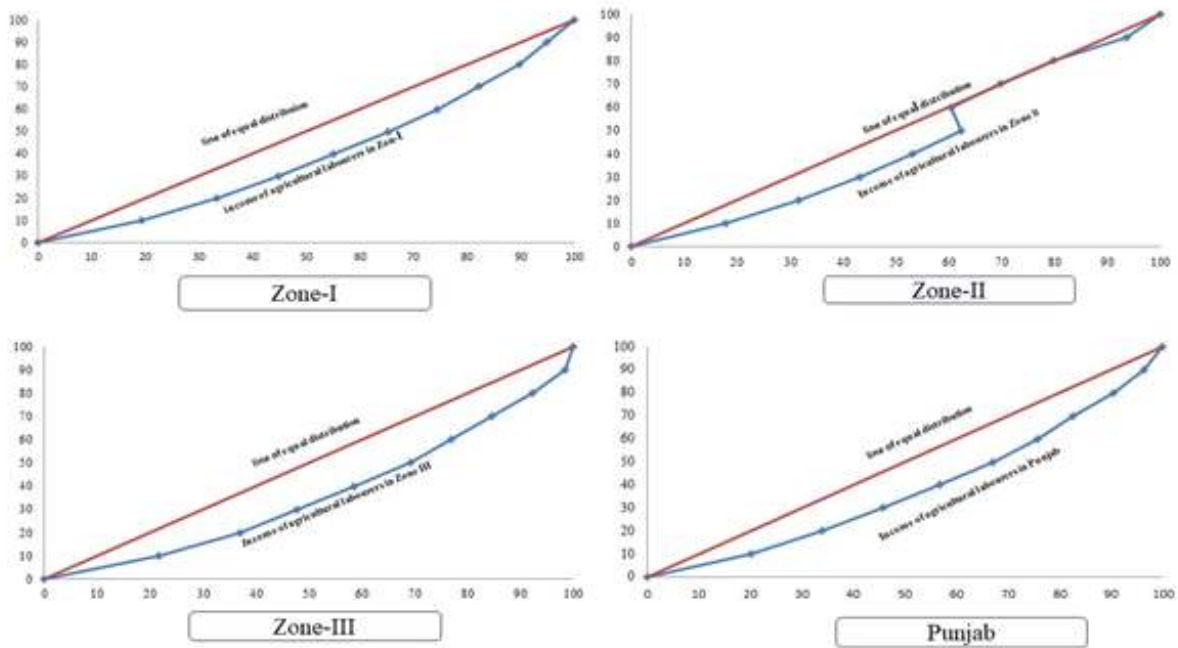

Fig 1: Lorenz curve depicting cumulative per cent income among agricultural laboures in Zone I, Zone-II, Zone -III and Punjab

data depict that ₹10615 was the annual income of farm labourers in Punjab, out of this ₹11492 was the expenditure and by deducting the consumption expenditure from income the study found negative savings to the tune of ₹876. Average propensity to consume of farm labourers was 108 per cent in Punjab where as in was highest in zone I (120.47per cent) and lowest in zone III (95.05per cent) concluded that farm labourers were spending more than their income. The average propensity to save (APS) was also observed negative i.e. 8.26 per cent. It was -20.47, -14.31 and 4.95 per cent in zones I, II and III, respectively. The APS was found very low and it was observed that it goes on increasing with the increase in income. APS of zone III was found positive than the other zones.

In order to know the share of various segments of the farm labourers in the total income, concentration of income was examined by working out the share of each deciles group and the concentration of coefficients as a whole. The trend showed Zone III was having comparatively worst distribution of income as relate to other zones of the state. As can be seen from Table 5, Zone II was the best distributed income zone among the others. The magnitude of Gini Ratio reaffirmed the

distribution pattern.

The highest magnitude of Gini ratio recorded was 0.303 in zones III followed by Zone I and II with 0.222 and 0.190, respectively. This trend confirmed that the distribution of income was relatively better in Zone II and I in comparison to Zone III of the state of Punjab. It was concluded that the distribution of income among the agricultural labourers was not as worst as in other categories due to equal opportunities of employment and lower income level.

Lorenz curve is a graphical representation of distribution of income among agricultural labourers. The shape of Lorenz curves in Fig 1 indicated that inequality among the agricultural labourers in different zones was not threatening. The curve in the graph showed the proportion of overall income among farm labourers.One straight line represents the line of equal income distribution and the other against this to find a conclusive variation in the income. More the difference between these two lines more will be the income gap. It was overserved form the fig 1 that the income inequality for farm laboures was not as bad as for the higher income communities.

CONCLUSION

It was inferred that, there has been a considerable drop in the demand for agricultural labour adoption over the past three decades in the majority of the zones. This leads to non-institution loans at higher interest rate. The consumption of drugs, liquor was more than cereals which indicates the addictiveness of drugs among farm laboures. On an average a single farm house stands ₹20000 thousand of medical expenses which was much higher for small earning community.The level of consumption of farm sector labour was very stumpy. The APC is meagerly positive for zone III and negative for other regions. This is dangerous and effect the survival of farm labourers by putting them below poverty line. Most of their income was spent on the non-food items and a small amount was spent for food items. The income inequality among farm laboures was not as bad as for the higher income communities. Regulations must be created that take into account the current and changing nature of agriculture's labour and wage structures.

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