

## Consumption Expenditure Pattern Among Farm Families of Rural Punjab

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### ABSTRACT

*The present study is an attempt to examine the emerging pattern of consumption with the increase in income brought about by technological change in agriculture sector of Punjab. The study is based on the data collected for 225 farm households comprising of 36 marginal, 50 small, 69 semi-medium, 31 medium and 39 large farm holdings selected under the scheme 'Economics of farming and the pattern of income and expenditure distribution in the Punjab agriculture' for the year 2012-13. It was observed that the average domestic consumption expenditure of a farm family in the state amounted to ₹ 155415 of which about 57 per cent was spent on food items. This was 1.3 times more on non-food items. The per capita domestic consumption expenditure of the rural households in the state was ₹ 24790 per annum. Zone-III i.e. south-western region and the central region i.e. Zone-II were relatively better than the sub-mountainous zone i.e. Zone-I; as majority of the farm families (47 per cent) in these zones appeared in the expenditure group of above ₹ 100000 having an average expenditure of ₹ 175072 in the state. The comparison at the extreme ends of the various expenditure groups exhibits wider disparities. All the categories of farm families observe practically the same set of priorities for the different items of consumption. A large household spent almost double the amount of money on both food and non-food items as compared to their counterparts in the marginal category.*

**Key Words:** Consumption expenditure, Gini ratio, Food expenditure  
**JEL Classification:** D12, D63, O13, R29

### INTRODUCTION

India is predominantly an agricultural economy. The success of economic development to a great extent depends upon the achievement made in agriculture sector.

Household income and consumption expenditure are two direct monetary measures used in assessing the economic well-being of a population. However, consumption expenditure is preferred to

income as it reflects long-term economic status of the household, particularly in low income countries (Friedman 1957).

Consumption pattern has attracted a greater interest to a larger number of researchers in developed countries but in all under-developing countries research interest in consumer studies receive less attention. Consumption expenditure on different food and non-food items are generally used as the main yardstick for measuring standard of living in developing nation. Studies of temporal changes in consumption pattern provides an insight into

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the status of human resources of a country and hence is helpful in planning future investment decision. Such studies attained special focus in recent years in wake of globalization and concerns about food securities (Sethia, 2013).

There has been a rapid change in the ladder of economic status of different farm size categories of rural Punjab. The determinants of the economic status of a farm category are its per capita income, the standard of living, the level of consumption etc. While the increase in per capita income and per capita consumption expenditure are some of the macro level indicators of development, the distribution of household expenditure is a micro level indicator (Basumatary, 2015). Household is a distinctly identified unit of consumption of goods and services and the measure of household consumption expenditure is the single most significant indicator of access of households to the basket of goods and services, their level of living and economic well-being, as well as disparities thereof. Household consumption expenditure is most easily understood as expenditure incurred by households on consumption goods and services that is, on goods and services used for the direct satisfaction of individual needs and wants or the collective needs of members of the community and not for further transformation in production (Johar, 1982).

There is a significant increase in the level of consumption of both food and non-food commodities in Punjab. But the consumption pattern among the different farm size groups is quite uneven within the state. The study of domestic expenditure and its distribution is therefore very important as it provides an idea of the levels of living of the farm population and degree of inequalities prevailing in the society. The present study elaborately deals with the

analysis of household domestic consumption expenditure. An attempt is made to examine the emerging pattern of consumption with the increase in income brought about by technological changes in agriculture. The analysis covers all the categories of farmers viz. marginal, small, semi-medium, medium and large to bring about the relative position of each category in the income and consumption nexus in different zones of the state.

#### METHODOLOGY

The Primary data collected under the scheme 'Economics of farming and the pattern of income and expenditure distribution in the Punjab agriculture' were used for this study. In order to capture the spatial variation, Punjab had been divided into three agro-climatic regions based on cropping pattern, soil type, physiography and water availability etc. The respective regions were classified as zone-I i.e. Sub mountainous region, zone-II i.e. central region and zone-III i.e. south western region. The sampling design of the study was three stage random sampling with development block as first stage, village as the second stage and operational holdings as the third stage of the sampling unit. The sampling design consisted of selection of 9 blocks comprising of 2 from the zone-I, 4 from the zone-II and 3 from the zone-III. One village was selected from each block and 25 farm holdings were selected from each village. Hence, 225 holdings were selected for the study comprising of 50 farm households from zone-I, 100 from zone-II and 75 from zone-III. The data relates to the agricultural year 2012-13. The classification of the size categories of farms adopted for this study was on the pattern adopted for conducting All India Agricultural Census which includes marginal (<1 ha), small (1-2 ha), semi-medium (2-4 ha), medium (4-6 ha) and large

(>6 ha). On the whole, 36 marginal, 50 small, 69 semi-medium, 31 medium and 39 large farm holdings were selected for detailed analysis.

### RESULTS AND DISCUSSION

The domestic consumption expenditure includes expenditure on food items and expenditure on non-food items. The expenditure on food items include expenditure on cereals, pulses, vegetables, edible oils, beverages, opium, liquor, fish, meat, eggs, sugar and gur, fruits, spices, milk and milk products. The items studied under non-food category includes clothing, education, fuel and lighting, conveyance, sundry and toilet, footwear, social ceremony tailoring and other miscellaneous items. The analysis has been done on per farm basis and per capita basis for different zones and among different farm size categories.

#### Domestic Expenditure Per Farm Family

The examination of the zone-wise and category-wise information on domestic expenditure on per farm family basis had been carried out and the information obtained with this respect had been given the Table 1 to Table 4. It is clear from Table 1 that a large share of the domestic expenditure was incurred on food items in all the zones of the state.

The farm families of zone-III spent the highest amount as domestic expenditure with ₹ 204639 followed by zone-II and zone-I with annual domestic expenditure of ₹ 122158 and ₹ 104755 respectively during 2012-2013 whereas the farm families of zone-I spent the minimum amount with ₹ 104755. It is evident from the table that necessities such as milk and its products, cereals, sugar and gur etc occupied the highest share in consumption expenditure amongst the food items with an average spending of ₹ 40341, ₹ 12523 and ₹ 8476 respectively in the state. Similarly, in terms of magnitude the total expenditure of ₹

66562 was incurred on the non-food items; out of which education was the most important component with the annual spending of ₹ 16538 followed by fuel and lighting and expenditure on clothing with ₹ 11049 and ₹ 9659 respectively.

Table 2 shows the percentage share of expenditure incurred on each item in total expenditure by the farm families. It was observed that the average expenditure on food items was 56.29, 58.50 and 56.80 per cent of the total domestic expenditure in zone-I, II and III respectively. The expenditure on food items varied around 42 per cent on non-food items. Among the food items, the expenditure on milk and milk products accounted for more than one fourth of the total domestic expenditure on food items in all the zones. Fish, meat and fruits were the items on which the least amount was spent in all the regions. Just like the state level picture, the proportion of expenditure in the non food category was the highest on education in all the zones with 13.23 per cent in zone-III, 8.13 per cent in zone I and 5.97 per cent in zone-II. Thus, on the whole, it was zone-III where the highest expenditure was recorded and more than 56.80 per cent of the total domestic expenditure was found to be spent on food items. However, in general, the proportion of domestic expenditure on non-food items increased with the increase in farm size.

In order to study the level of inequality prevailing in the society, the expenditure on various food and non-food items in the families with different size of land holdings was worked out for the year 2012-13. The information, thus computed, had been presented in Table 3. The families owning large sized farms annually spend ₹ 122686 on the food items and ₹ 109139 on the non-food items. On the other hand, the major proportion of domestic expenditure of small

and semi-medium farm families was incurred on their day to day food needs. The families having marginal land holdings

**TABLE 1: ANNUAL DOMESTIC CONSUMPTION EXPENDITURE PER FARM IN DIFFERENT ZONES OF PUNJAB (₹/farm)**

Items/Zones	Zone-I	Zone-II	Zone-III	State
Cereals	7129	11220	16198	12523
Pulses	2614	3939	1644	2625
Vegetables	2518	5514	9266	6516
Edible oils	3638	4926	6500	5339
Beverages	1613	2283	5254	3455
Opium, liquor etc	871	1653	6206	3503
Fish,meat,eggs etc	2074	426	833	973
Sugar and gur	4531	4970	13079	8476
Fruits	3353	769	1176	1524
Spices	1943	2762	4386	3302
Milk and milk products	28686	32998	51674	40341
<b>Food items Total</b>	<b>58996</b>	<b>71460</b>	<b>116216</b>	<b>88583</b>
Clothing	6589	6132	13840	9659
Education	8516	7294	27077	16538
Fuel and lighting	10923	10482	11537	11049
Conveyance	3541	7405	5308	5614
Medicine	1872	1950	4337	2994
Sundry & Toilet	3610	4175	4047	3993
Footwear	1918	1926	5884	3698
Social Ceremony	5715	3670	5251	4827
Tailoring	2136	1367	4017	2716
Misc.	939	6297	7125	5474
<b>Non-Food Items</b>	<b>45759</b>	<b>50698</b>	<b>88423</b>	<b>66562</b>
<b>Total Expenditure</b>	<b>104755</b>	<b>122158</b>	<b>204639</b>	<b>155145</b>

spent ₹ 117455 on domestic purposes out of which ₹ 63969 was spent on food items and ₹ 53486 was spent on non-food items. The results of the study show that amongst the food items the major expenditure was incurred on milk and milk products. The large farm households spent ₹ 55175, followed by an annual expenditure of ₹ 4719 by medium and ₹ 38878 by semi-medium households on this item. The marginal and small farm size categories made an expenditure of ₹ 28963 and ₹ 34778 respectively on milk and milk products. The non-vegetarian items like fish, meat and eggs etc ranked lowest in the list of expenditure with the respective investment of ₹ 568, ₹ 1110, ₹ 876, ₹ 799 and ₹ 1482 by marginal,

small, medium, semi-medium and large households. Amongst the non-food items, the study highlighted that education was the most important component of domestic expenditure with an average spending of

**TABLE 2: PERCENTAGE ANNUAL DOMESTIC CONSUMPTION EXPENDITURE PER FARM IN DIFFERENT ZONES OF PUNJAB (%)**

Items/Zones	Zone-I	Zone-II	Zone-III	State
Cereals	6.83	9.19	7.92	8.08
Pulses	2.5	3.23	0.8	1.69
Vegetables	3.49	4.51	4.53	4.2
Edible oils	3.49	4.03	3.18	3.44
Beverages	1.55	1.87	2.57	2.23
Opium, liquor etc	0.83	1.35	3.03	2.26
Fish,meat,eggs etc	1.98	0.35	0.41	0.63
Sugar and gur	4.32	4.07	6.39	5.47
Fruits	3.2	0.63	0.57	0.98
Spices	1.85	2.26	2.15	2.13
Milk and milk products	27.37	27.01	25.25	26.03
<b>Food items Total</b>	<b>56.29</b>	<b>58.5</b>	<b>56.8</b>	<b>57.16</b>
Clothing	6.29	5.02	6.76	6.23
Education	8.13	5.97	13.23	10.56
Fuel and lighting	10.42	8.58	5.64	7.13
Conveyance	3.38	6.06	2.59	3.62
Medicine	2.03	1.6	2.12	1.93
Sundry & Toilet	3.44	3.42	1.98	2.58
Footwear	1.89	1.58	2.87	2.39
Social Ceremony	5.45	3	2.57	3.12
Tailoring	2.03	1.12	1.96	1.75
Misc.	0.9	5.15	3.48	3.53
<b>Non-Food Items</b>	<b>43.71</b>	<b>41.5</b>	<b>43.2</b>	<b>42.84</b>
<b>Total Expenditure</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

₹ 35492 by large farm households, ₹ 15700 by medium and ₹ 12665 by semi-medium households. Even the marginal households make a substantial investment in education to the tune of ₹ 16236 annually. Fuel and lighting were the second major need of almost all the households in different farm size categories. Hence, a large household spent almost double the amount of money on both food and non-food items as compared to their counterparts in the marginal category. The study further revealed that on an average ₹ 2994 were spent on health and medicine in the state,

which was comparatively much less than the expenditure incurred on other items in the category.

The study observed that a marginal household spent 54.47 per cent annually on food and 43.53 per cent on non food items as shown in Table 4. It was clear from the study that a major portion of expenditure in the state was incurred on food items in all the farm size categories individually as well as on the state level. In terms of magnitude an average farm family in the state spent ₹ 155145 per annum for domestic purposes. Out of this, 57.16 per cent was spent on food items indicating thereby that the expenditure upon food items was almost 1.3 times the amount on non-food items. Amongst the food items, milk and milk products were the most important on which 26.03 per cent of the total domestic expenditure was incurred in the state.

However, fish, meat, eggs, fruits and pulses were the items in the food group on which the minimum amount of money was spent. From the non-food items category, education held priority over other components on which 10.56 per cent of the total domestic expenditure was incurred. Next most important component of non-food items was the fuel and lighting and clothing which recorded 7.13 per cent and 6.23 per cent share respectively in the total domestic expenditure at the state level.

#### Domestic Expenditure Per Capita Basis

Per family domestic expenditure does not depict the real picture of the pattern of domestic expenditure because it fails to take into account the size of the family. Therefore, the analysis on per head basis of domestic expenditure provides a more realistic view of the purchasing capacity and the standard of living of the farm population.

TABLE 3: ANNUAL DOMESTIC CONSUMPTION EXPENDITURE IN DIFFERENT FARM SIZE CATEGORIES OF PUNJAB

Items/Category	₹/farm)					
	Marginal	Small	Semi-medium	Medium	Large	State
Cereals	8871	10339	12083	14931	17562	12523
Pulses	1823	2307	2623	3048	3439	2625
Vegetables	5120	4952	6667	7775	8539	6516
Edible oils	3581	4506	5699	6378	6569	5339
Bevrages	2324	3058	3237	4034	4932	3455
Opium, liquor etc	1906	1538	3208	4275	7404	3503
Fish,meat,eggs etc	568	1110	876	799	1482	973
Sugar and gur	6025	4620	8135	9182	11880	8476
Fruits	1648	1575	1408	1393	1657	1524
Spices	3140	2637	3151	3960	4047	3302
Milk and milk products	28963	34778	38878	47119	55175	40341
Food items Total	63969	74420	85965	102935	122686	88583
Clothing	7079	8003	8653	11594	14406	9659
Education	16236	7066	12665	15700	35492	16538
Fuel and lighting	8903	9604	10697	12407	14427	11049
Conveyance	3184	3834	5621	6558	9221	5614
Medicine	2181	2494	2324	3490	5177	2994
Sundry & Toilet	3050	3880	3905	4307	4913	3993
Footwear	3056	3031	3300	4210	5441	3698
Social Ceremony	3752	3981	4229	4703	8057	4827
Tailoring	2144	2168	2595	3259	3727	2716
Misc.	3901	3811	5347	6751	8269	5474
Non-Food Items	53486	47872	59336	72979	109139	66562
Total Expenditure	117455	122292	145301	175914	231825	155145



that 62.18 per cent money was spent on food items and 37.82 per cent was spent on the non-food items on per capita basis in the state. The zonal picture did not reveal much variation in percentage of per capita expenditure on different food and non-food items across the state. Out of the total expenditure, nearly 63 per cent was incurred on food items in both zone-I and II with a minor variation of 61 per cent in zone-III. On the other hand, 36.5 per cent money was spent on non-food items both zone-I and II with a little variation of 38 per cent in zone-III of the state. Even the item wise expenditure on both food and non-food items was almost invariant among all the three zones.

The size-wise analysis of this aspect pointed out that by and large the per capita expenditure on all the food and non-food items was an increasing function of the size of the farm as shown in Table 7. The large

household showed highest domestic expenditure in the state to the tune of ₹ 31046 annually. The expenditure on food items accounted for ₹ 17853 while ₹ 13193 was spent on non-food items. In terms of magnitude, on an average a family in the state spends highest amount of ₹ 7020 on milk and milk products, followed by ₹ 2179 on cereals in food items and ₹ 2847 on education followed by ₹ 1923 on fuel and lighting. Medicine and health care were again the neglected components amongst all the farm size categories. On per capita basis, the highest expenditure of ₹ 6098 by marginal households, ₹ 6740, ₹ 6968 and ₹ 6923 respectively was incurred annually by small, medium, semi-medium households on milk and milk products. The large farming households spent ₹ 13193 on all the non food items followed by medium and semi-medium household expenditure of ₹ 8809 and ₹ 8583 respectively. Education

**TABLE 5: PER CAPITA ANNUAL DOMESTIC CONSUMPTION EXPENDITURE IN DIFFERENT ZONES OF PUNJAB**

Items/Zones	₹/capita			
	Zone-I	Zone-II	Zone-III	State
Cereals	1404	1971	2647	2179
Pulses	516	692	269	457
Vegetables	496	968	1514	1134
Edible oils	718	865	1062	930
Bevrages	317	401	858	601
Opium, liquor etc	172	290	1014	610
Fish,meat,eggs etc	408	75	136	169
Sugar and gur	892	873	2137	1475
Fruits	660	135	192	265
Spices	382	485	717	575
Milk and milk products	5647	5796	8444	7020
<b>Food items Total</b>	<b>11612</b>	<b>12551</b>	<b>18990</b>	<b>15415</b>
Clothing	1297	1077	2261	1681
Education	1676	1281	4424	2847
Fuel and lighting	2150	1841	1885	1923
Conveyance	697	1301	867	977
Medicine	368	343	709	521
Tailoring	420	240	656	473
Misc.	185	1106	1164	953
<b>Non-Food Items</b>	<b>6793</b>	<b>7189</b>	<b>11966</b>	<b>9375</b>
<b>Total Expenditure</b>	<b>18405</b>	<b>19740</b>	<b>30956</b>	<b>24790</b>

emerged as the most favoured arena of domestic expenditure amongst all the farm size categories of the state.

The per capita expenditure on cereals, pulses, vegetables and spices was more or less invariant among all the five farm size groups. On the whole, the marginal, small, semi-medium, medium and large households spent 59.46 per cent, 66.81 per cent, 64.22 per cent, 63.19 per cent and 57.5 per cent respectively on food items as shown in Table 8.

Over a wide range of farm size, the per capita expenditure on fuel and lighting, clothing and other miscellaneous items were also invariant except that a relatively higher

increased with the farm size. All the categories of farm families observed practically the same set of priorities for different items of consumption. Among the food items, cereals, milk and milk products were the items of first importance to all the categories of farm households. Among the non-food items, education, fuel and lighting and clothing commanded priorities in that order by almost all the categories of the households.

#### Distribution of Farm Families According to Domestic Expenditure

Distribution of farm families according to domestic expenditure had been studied to identify the expenditure class in which

**TABLE 6: PER CAPITA ANNUAL DOMESTIC CONSUMPTION EXPENDITURE IN DIFFERENT ZONES OF PUNJAB**

Items/Zones	Zone-I	Zone-II	Zone-III	(%) State
Cereals	7.63	9.98	8.55	8.79
Pulses	2.8	3.51	0.87	1.84
Vegetables	2.69	4.9	4.89	4.57
Edible oils	3.9	4.38	3.43	3.75
Beverages	1.72	2.03	2.77	2.42
Opium, liquor etc	0.93	1.47	3.28	2.46
Fish,meat,eggs etc	2.22	0.38	0.44	0.68
Sugar and gur	4.85	4.42	6.9	5.95
Fruits	3.59	0.68	0.62	1.07
Spices	2.08	2.46	2.32	2.32
Milk and milk products	30.68	29.36	27.28	28.32
<b>Food items Total</b>	<b>63.09</b>	<b>63.58</b>	<b>61.35</b>	<b>62.18</b>
Clothing	7.05	5.46	7.3	6.78
Education	9.11	6.49	14.29	11.48
Fuel and lighting	11.68	9.33	6.09	7.76
Conveyance	3.79	6.59	2.8	3.94
Medicine	2	1.74	2.29	2.1
Tailoring	2.28	1.22	2.12	1.91
Miscellaneous	1.01	5.6	3.76	3.84
<b>Non-Food Items</b>	<b>36.91</b>	<b>36.42</b>	<b>38.65</b>	<b>37.82</b>
<b>Total Expenditure</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

figure of 15 per cent and 16 per cent respectively was noticeable on education for marginal and large households. Further, the expenditure on milk and its products, fruits, opium, liquor etc amongst the food items

majority of the farm families' fall in different zones of Punjab. The information on the number of farm families falling in different expenditure classes, their simple as well as commutative percentage and average





expenditure had been given in the Table 9. It can be seen from the table that majority of the farm families (47%) fell in the expenditure group of above ₹ 100000 having an average expenditure of ₹ 175072 at the state level.

The next expenditure groups were of ₹ 90000-100000 and ₹ 70000 to 80000 each with 10.86 per cent of farm families were recorded. Thus, these three expenditure groups together covered about 70 per cent of the farm families at the state level. The average expenditure of the families falling in the uppermost expenditure group was more than 6 times the average expenditure of the bottom class. The comparison at the extreme ends of the various expenditure groups showed wider disparities. Since there was no family having expenditure less than ₹ 20000 in the state, thus lowest expenditure class of upto ₹ 30000 was taken up for distribution study. The percentage of families falling in this class was 0.57 per cent and the average expenditure was ₹ 25592.

In case of zonal situation, the range of expenditure between ₹ 40000-50000 turned out to be the maximum in zone-I with 44.00 per cent farm families falling in this range.

The highest proportion of farm families in zone-II was 36 per cent falling in expenditure class of above ₹ 100000. In case of zone-III, highest proportion of the families (74.66%) also belonged to the expenditure class of above ₹ 100000. Thus, the comparison of various zones brought out that zone-III and II were relatively better than the zone I of the state as majority of the farm families of these zones spent more than ₹ 100000 as domestic expenditure whereas, there were no farm families in this group in zone-I.

### Concentration of Domestic Expenditure

For analyzing the distribution of consumption expenditure among the various strata of cultivating households, the households were rearranged into decile groups. The information in respect of concentration of domestic expenditure worked out had been given in Table 10. It can be seen from the table that the share of the lower 10 per cent of the farm families in total domestic expenditure was 3.58 per cent in the state. Correspondingly to this, the share of upper 10 per cent of the farming families was 20.22 per cent during the same period. This showed the disparities in the distribution of domestic expenditure at the

TABLE 9: DISTRIBUTION OF SELECTED FARM FAMILIES ACCORDING TO DOMESTIC EXPENDITURE IN DIFFERENT ZONES OF PUNJAB

Domestic expenditure (₹)	Zone-I		Zone-II		Zone-III		Overall	
	Per cent families	Average Exp.*	Per cent families	Average Exp.	Per cent families	Average Exp.	Per cent families	Average Exp.
Up to 30,000	-	-	1.33	25592	-	-	0.57	25592
30,000 - 40,000	16	37140	2.67	35927	-	-	3.43	36393
40,000 - 50,000	44	44804	1.33	48956	-	-	6.29	46562
50,000 - 60,000	28	55950	-	-	2.67	56999	5.71	56460
60,000 - 70,000	-	-	9.33	68320	4	68994	5.71	68532
70,000 - 80,000	4	78927	21.33	78034	2.67	79285	10.86	78449
80,000 - 90,000	-	-	14.67	87085	6.67	88164	9.14	87624
90,000 - 100000	6	98021	13.34	96680	9.33	98168	10.86	97623
Above 100,000	2	120608	36	142472	74.66	190790	47.43	175072
<b>Total</b>	<b>100</b>	<b>73578</b>	<b>100</b>	<b>105104</b>	<b>100</b>	<b>165256</b>	<b>100</b>	<b>124085</b>

\* Expenditure

extreme ends of the distribution.

The share of the lowest deciles group in the total farm expenditure was 4.17 per cent, 4.68 per cent and 4.53 per cent for zone-I, II and III, respectively. The share of lower 50 per cent in the respective zones was 26.73 per cent, 35.67 per cent and 33.93 per cent against the share of upper 10 per cent with 21.94 per cent, 18.59 per cent and 19.85 per cent respectively. Thus, the comparison showed that the distribution of domestic expenditure was relatively less skewed in the zone-II. This observation was also confirmed by the value of Gini ratios which turned out to be the lowest i.e. 0.2081 in this zone of the state.

#### Per Capita Domestic Expenditure

The study of the distribution of domestic expenditure on household basis is a crude measure which does not reflect the real picture. Therefore, the information on per head basis and attempted to study its distribution was worked out and had been incorporated in Table 11.

The perusal of the table revealed that the share of lowest deciles group in the per capita domestic expenditure was 4.43 per cent at the state level. Contrary to this, the upper most group of population shared as high as 19.57 per cent over the same period.

The lowest 50 per cent of farm population shared only 34.75 per cent of the total domestic expenditure against 19.57 per cent by the upper 10 per cent of the population. This showed skewedness in the distribution of domestic expenditure even in case of per head basis in the study area.

The zone-wise scenario revealed the similar trends. However, the inter-zonal comparison showed that zone-II had the fair distribution on per capita domestic expenditure basis as compared to the other zones of the state. The value of Gini ratio which was the lowest in zone-II i.e. 0.1935 also confirmed the observation of fair distribution in this zone of the state.

#### Surplus from Agriculture and Non-Farm Income

Surplus from agriculture is the amount left over with the farmers after meeting the farm and domestic expenditure and obtained by deducting these expenses from the gross farm income. Neither the ad-hoc income nor the ad-hoc expenditure had been taken into account for this purpose. The total surplus was the amount worked out by adding the non-farm income in surplus from agriculture. The sources of non-farm income can be varied. In Punjab, dairying constitutes the most important source of

TABLE 10: DISTRIBUTION OF DOMESTIC EXPENDITURE AMONG THE FARM FAMILIES IN DIFFERENT ZONES OF PUNJAB

Decile Group (%)	(Per cent of total domestic expenditure)			
	Zone-I	Zone-II	Zone-III	Overall
10	4.17	4.68	4.53	3.58
20	8.96	11.34	10.38	8.84
30	14.4	18.73	17.51	15.44
40	20.27	26.82	25.31	23.13
50	26.73	35.67	33.93	31.69
60	34.87	44.98	43.74	41.26
70	46.61	55.2	54.65	52.19
80	60.49	67.13	66.51	64.95
90	78.06	81.41	80.15	79.78
100	100	100	100	100
Gini Ratio	0.3109	0.2081	0.2266	0.2583

**TABLE 11: DISTRIBUTION OF DOMESTIC EXPENDITURE ON PER CAPITA AMONG THE FARM FAMILIES IN PUNJAB**

Decile Group	(%)			
	Zone-I	Zone-II	Zone-III	Overall
10	4.59	5.50	5.54	4.43
20	10.22	12.26	12.17	10.50
30	16.24	19.83	19.44	17.84
40	22.68	28.03	27.29	25.99
50	30.25	36.77	35.8	34.75
60	40.68	45.99	44.95	44.2
70	53.02	55.86	55.09	54.52
80	66.05	67.48	66.74	66.34
90	80.99	81.54	80.19	80.43
All	100	100	100	100
Gini Ratio	0.2506	0.1935	0.2056	0.222

non-farm income. Other sources of non-farm income reported by the sampled households were income from poultry, wage employment inside and outside agriculture, hiring out of farm assets, income from small household enterprises and transfer payments. The information thus worked out had been given in Table 12.

The examination of the table showed that an average farm family in the state recorded

₹ 198590 as surplus from agriculture and non-farm income during the year 2012-2013. The zonal situation in this respect showed that the highest amount of surplus from agriculture was observed in zone-III with ₹ 265582 followed by zone-II with ₹ 246799 while it was lowest in zone-I with ₹ 1683, respectively. The level of agricultural development, the interaction of high yield and remunerative prices of cotton and paddy

**TABLE 12: SURPLUS FROM AGRICULTURE AND NON-FARM INCOME ON VARIOUS FARM CATEGORIES IN DIFFERENT ZONES OF PUNJAB**

Zone	Particulars	Marginal	Small	Semi-medium	Medium	Large	Average
I	Surplus from agriculture	-47561	-29496	25570	27582	164631	1683
	Non-farm Income	21911	54860	24432	21568	24213	33317
	Total	-25650	25364	50002	49150	188844	35001
II	Surplus from agriculture	70106	128434	207666	400043	429152	246799
	Non-farm Income	35815	43063	41922	57392	21197	47694
	Total	105921	171497	249588	457435	450349	286693
III	Surplus from agriculture	53466	75649	221189	418580	536232	265582
	Non-farm Income	37460	31602	14255	14360	13185	20684
	Total	90926	107251	235444	432940	549417	286266
Overall	Surplus from agriculture	25799	63117	175227	358561	445952	198590
	Non-farm Income	53350	43629	29151	37500	18219	35496
	Total	57482	106746	204378	396061	464171	230619

may explain this phenomenon.

The size-wise situation of the surplus from agriculture depicted a very disturbing trend in zone-I, where the surpluses from agriculture with the marginal and small farmers were negative. With respect to size-wise analysis, it had been recorded that the surplus from agriculture varied, by and large, directly with the size of the farm. It is worth mentioning here that small farmers earned the major share of total surplus from non-farm sources where as the large farmers from agriculture.

### CONCLUSION

On the basis of foregoing analysis, it was fairly evident that domestic expenditure increased with the increase in the size of the farm in the state. A large household spent almost double the amount of money on food and non-food items as compared to their counterparts in marginal category. The comparison of various zones brought out that the south-western region i.e. zone-III and the central region i.e. zone-II were relatively better than zone-I i.e. the sub-mountainous zone; as the majority of farm families of these zones spent more than ₹ 100000 on domestic consumption. The inter-zonal comparison further showed that zone-II had fair distribution on per capita domestic expenditure as compared to other zones of the state. The Gini ratio was found to be lowest in zone-II (0.1935). All the categories of farm families observed practically the same set of priorities for the

different items of consumption. The surplus from agriculture varied directly with the size of the farm. It is indeed a disquieting feature of the Indian agrarian situation that the smaller category of farmers had little funds for investment which act as a crucial constraint for the future agriculture development of the state agriculture. It is only through a policy of active state intervention that such families can be saved from further erosion of their living standards. This can be done by creating additional employment opportunities for such farm families and making cheap education and health services available to them.

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