Levels, Pattern and Distribution of Consumption Expenditure Among Small and Marginal Farmers: A Case Study of Patiala District in Punjab

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Three out of four poor people in developing countries – 883 million in all – lived in rural area in the year 2002. Most of them, directly or indirectly, depend on agriculture for their livelihoods. So, a more dynamic and inclusive agriculture could dramatically reduce rural poverty, helping to meet the Millennium Development Goal on poverty and hunger (World Bank, 2008). World agriculture has been highly successful in increasing average food availability per person by about 20 per cent, while the population has more than doubled in less than 50 years to over 6 billion people. Global food supplies are ample to meet everyone's essential needs, yet over 800 million people are chronically undernourished.....much of the increased food output has been from the small farmers in developing countries, especially in Asia. Even, however, in those countries which have been most successful in raising smallholder output, such as India and China, many million people, both rural and urban, continue to be chronically undernourished (Shiyani and Shaheen, 2006).

Green Revolution helped India to overcome chronic food scarcity and made the country self-sufficient in food production (Waghmare et al., 2006). There has been a major transformation of farming from the traditional to the modern with millions of farmers, including the small and marginal, who have become increasingly science and technology conscious, fully participating in the Green Revolution (Rao, 2004). But the small and marginal farmers are not able to reap the benefits of this revolution either in terms of improving their standard of living or in the improvement of their social status. The Green Revolution is not completely green in the sense that

the new technology in agriculture has benefited the farmers with larger holdings, while those with smaller holdings lagged behind in the distribution of gains of Green Revolution (Kaur and Singh, 2006).

Due to the fixed cost component in crop cultivation cost of production has increased. This has hit hard the profitability of the farm enterprise especially of small and marginal farmers who over-invested in farm equipment (Singh, 2006). Therefore, despite the tremendous progress in foodgrain production the problem of malnutrition still persists in the country (Kumari and Singh, 2006). The foodgrain self-sufficiency that is visible in India is often argued to be due to the lack of purchasing power among large masses of rural population (Nasurudeen et al., 2006). The path of economic development followed in India has failed to remove poverty so far (Talib and Majid, 1976). It is also generally said that farmers in Punjab spend too much on 'so-called' non-productive (consumption) purposes, but this is not true in the case of small and marginal farmers who are struggling to meet their basic necessities of life, viz. food and clothing. Various other studies conducted outside farming in different contexts have pointed out that large expenses on health care, death and marriage ceremonies in India are met with loans on high interest taken from the money-lenders which make the families fall into poverty (Krishna et al., 2003; Krishna, 2003; Pawar et al., 1991; Jodha, 1988). In fact, the non-availability of consumption loans from formal institutions leads farmers to use productive loans for consumption purposes. The NSSO data shows that only 20 per cent of the credit was used for so-called consumption purposes (Singh, 2006).

RESEARCH METHODOLOGY

The present paper is an attempt to study the levels, pattern and distribution of consumption expenditure among the marginal (up to 2.5 acres) and small (more than 2.5 and up to 5 acres) farm-size categories in Patiala district of the Punjab state. The present study based on multi-stage sampling technique relates to the year 2007-08. Patiala district was purposely selected in the first stage. In the second stage, one village each from all the development blocks of the district was randomly selected. From these villages 110 households (41 belonging to the marginal farm-size category and 69 to the small farm-size category) were randomly selected and investigated, by taking 10 per cent households from the total number of small and marginal farmers. The data was collected from the sampled households through personal interviews. The results were analysed by using the mean values and percentages. Gini coefficient was also used for the purpose.

LEVELS OF CONSUMPTION

The mean values of household consumption expenditure of the small and marginal farm-size categories are given in Table 1. The table shows that annual consumption expenditure of an average sampled farm household is Rs. 85095.91. So far as the consumption expenditure of the two farm-size categories is concerned, there is considerable variation between them. For example, households belonging to the marginal farm-size category have recorded annual per household consumption expenditure of Rs. 63277.07, whereas the annual consumption expenditure for the small farm-size category has been recorded at Rs. 98303.67. The data given in the table clearly establishes a positive relationship between farm-size and consumption levels, i.e., higher the farm-size, higher would be the consumption expenditure and vice-versa. The consumption expenditure of the small farm-size category is found to be 1.55 times higher than the consumption expenditure of the marginal farm-size category.

Table 1
Levels of Household Consumption Expenditure of Small and Marginal Farmers:
Category-wise (Mean Values in Rs.)

S.	Items of Consumption	Marginal	Small	All Sampled
No.		Farmers	Farmers	
A.	Non-durables			
1.	Foodgrains:	8303.78	11099.05	10057.17
	(i) Cereals	6891.50	8771.62	8070.85
	(ii) Pulses	1412.28	2327.43	1986.32
2.	Condiments & spices	917.83	1655.18	1380.34
3.	Fruits	741.24	1377.84	1140.56
4.	Vegetables	812.21	1211.04	1062.38
5.	Milk and milk products	10249.50	18621.00	15500.71
6.	Edible oil	1980.76	3503.09	3029.87
7.	Sugarcane products	2883.51	3653.26	3366.35
8.	Meat, fish & eggs	1373.33	2069.13	1809.78
9.	Tea leaves	2128.35	2432.26	2318.98
10.	Biscuits/bread & sweets	1003.75	1533.52	1336.06
11.	Pickles	513.43	832.93	713.84
12.	Intoxicants and drugs	2848.89	4285.67	3750.14
13.	Fuel and light	3252.00	4592.15	4092.63

Table 1 (Contd.)

4.	Clothing and bedding	2896.57	3765.07	3441.35
15.	Soaps and detergents	1800.03	2167.50	2030.53
16.	Footwear	1173.12	1891.43	1623.69
17.	LPG	810.74	1340.00	1142.73
	Sub-total	43689.04	66030.12	57797.11
B.	Durables	d struck	TO TYCERLUN	o antilibring
1.	House construction/repairs	920.83	2118.11	1671.85
2.	Radio/TV/VCR/Tape-recorder/CD	156.16	185.26	174.41
3.	Watches/clocks	113.33	126.25	121.43
4.	Electric fan/cooler	173.33	267.85	232.61
5.	Sewing machine	23.35	93.33	67.24
6.	Furniture	566.78	788.57	705.90
7.	Utensils	182.99	305.62	259.91
8.	Car/tempo	203.65	217.12	212.09
9.	Scooter/motorcycle	292.68	637.81	509.17
10.	Bicycles	256.42	173.91	204.66
11.	Handpump/tap	177.50	215.28	201.19
12.	Cellular phone	734.60	965.37	632.93
	Sub-total	3801.62	6094.48	4993.39
C.	Services			
1.	Education	2343.33	3815.27	3266.63
2.	Health care	2776.28	4214.02	3678.13
3.	Conveyance	1815.24	3219.74	2696.24
4.	Communication	1553.33	2692.51	2267.90
	Sub-total	8488.18	13941.54	11908.90
D.	Socio-religious Ceremonies		Thursday	
1.	Marriages & other social ceremonies	5931.66	9846.28	8387.19
2	Religious ceremonies	1366.57	2391.25	2009.32
	Sub-total	7298.23	12237.53	10396.51
-	Total	63277.07	98303.67	85095.91

AVERAGE PROPENSITY TO CONSUME

The average propensity to consume is given in Table 2. For an average small and marginal farm household, the average propensity to consume comes to 1.10. It is more than one for both the farm-size categories. It is 1.15 for the marginal farm-size category and 1.08 for the small farm-size category.

Table 2

Average Propensity to Consume with respect to Small and Marginal Farmers:

Category-wise

S. No.	Farm-Size Categories	Average Consumption (in Rs.)	Average Income (in Rs.)	Average Propensity to Consume
1.	Marginal Farmers	63277.07	55011.07	1.15
2.	Small Farmers	98303.67	91010.72	1.08
3.	All Sampled Farmers	85095.91	77592.67	1.10

Source: Field Survey, 2007-08

Since the average propensity to consume is greater than one for both the farm-size categories, both the categories incur a deficit. An average household in the total sample incurs a deficit of Rs. 7503.24. It is higher for the marginal farm-size category, i.e., Rs. 8266.00 and lower for the small farm-size category, i.e., Rs. 7292.95. This analysis has an important implication that the small and marginal farmers try to maintain a minimum level of consumption whether they can afford it or not. The field survey highlighted a disturbing fact that the small and marginal farm households take consumption loans at exorbitant rate of interest and in case of non-payment of these loans they sell a part of their already small land holding at throw away prices.

PER CAPITA CONSUMPTION EXPENDITURE

As the family size across the farm-size categories varies, so it is relevant to study per capita consumption expenditure of both the categories. The data regarding per capita consumption expenditure of the two farm-size categories is provided in Table 3. The table shows that the per capita consumption expenditure of the small and marginal farmers taken together is Rs. 15471.98. Per capita consumption expenditure is higher for the small farmers (Rs. 16915.10) and lower for the marginal farmers (Rs. 12717.45). The table clearly reflects that per capita consumption expenditure is maximum for non-durables for both the categories taken

Table 3
Per Capita Consumption Expenditure of Small and Marginal Farmers : Category-wise (in Rs.)

S. No.	Items of Consumption	Marginal Farmers	Small Farmers	All Sampled Farmers
A.	Non-durables			
1.	Foodgrains:	1668.90	1909.81	1828.58
	(i) Cereals	1385.06	1509.33	1467.43
	(ii) Pulses	283.84	400.48	361.15
2.	Condiments & spices	184.47	284.81	250.97
3.	Fruits	148.97	237.08	207.37
4.	Vegetables	163.24	208.38	193.16
5.	Milk and milk products	2059.95	3204.11	2818.31
6.	Edible oil	398.09	602.78	550.89
7.	Sugarcane products	579.53	628.62	612.06
8.	Meat, fish & eggs	276.01	356.03	329.05
9.	Tea leaves	427.76	418.52	421.63
10.	Biscuits/bread & sweets	201.73	263.87	242.92
11.	Pickles	103.19	143.32	129.79
12.	Intoxicants and drugs	572.57	737.43	681.84
13.	Fuel and light	653.59	790.17	744.11
14.	Clothing and bedding	582.15	647.85	625.70
15.	Soaps and detergents	361.77	372.96	369.19
16.	Footwear	235.77	325.46	295.22
17.	LPG	162.94	230.57	207.77
	Sub-total	8780.64	11361.79	10508.57
B.	Durables			
1.	House construction/repairs	185.07	364.46	303.97
2.	Radio/TV/VCR/Tape-recorder/CD	31.39	31.88	31.71
3.	Watches/clocks	22.78	21.72	22.08
4.	Electric fan/cooler	34.84	46.09	42.29
5.	Sewing machine	4.69	16.06	12.23
6.	Furniture	113.91	135.69	128.35
7.	Utensils	36.78	52.59	47.26

Table 3 (Contd.)

	Total	12717.45	16915.10	15471.98
	Sub-total	1466.80	2105.71	1890.27
2.	Religious ceremonies	274.65	411.46	365.33
1.	Marriages & other social ceremonies	1192.15	1694.25	1524.94
D.	Socio-religious Ceremonies			
	Sub-total	1705.96	2398.92	2165.25
4.	Communication	312.19	463.30	412.35
3.	Conveyance	364.83	554.02	490.23
2.	Health care	557.98	725.11	668.75
1.	Education	470.96	656.49	593.93
C.	Services	treet street	arll about t	lidenuli-nen
	Sub-total	764.05	1048.68	907.89
12.	Cellular phone	147.64	166.11	115.08
11.	Handpump/tap	35.67	37.04	36.58
10.	Bicycles	51.54	29.92	37.21
9.	Scooter/motorcycle	58.82	109.75	92.58
8.	Car/tempo	40.93	37.36	38.56

Source: Field Survey, 2007-08

together, followed by marriages and other socio-religious ceremonies, services and durable consumption. The analysis of data evidently establishes a positive relationship between farm-size and per capita consumption expenditure.

CONSUMPTION PATTERN

The relative shares of different items of consumption expenditure are given in Table 4. The table clearly depicts that for an average sampled farm household, non-durable consumption expenditure accounts for the major proportion of the total consumption expenditure, followed by the expenditure on marriages and other socio-religious ceremonies, services and durable commodities. The table explains that 69.04 per cent of the total consumption expenditure of the marginal farm-size category is accounted for on non-durables and the same for the small farm-size category is 67.17 per cent. As far as expenditure on marriages and other socio-religious ceremonies is concerned, the relative share is 11.53 per cent for the marginal farm-size category and 12.45 per cent for the small farm-size category. 13.41 per cent of total consumption

expenditure is spent by the marginal farm-size category on services and the corresponding figure for the small farm-size category is 14.18 per cent. A total of 6.02 per cent of consumption expenditure on durable commodities is spent by the marginal farm-size category, whereas this figure stands at 6.20 per cent for the small farm-size category.

The above discussion leads to the fact that, on an average, the small farmsize category has spent slightly more on social and religious ceremonies, services and consumer durables, whereas the marginal farm-size category has spent more on non-durable goods. The analysis further provides that as farm-size increases, the consumption expenditure also increases except in the case of non-durable consumption.

Table 4

Consumption Pattern of Small and Marginal Farmers : Category-wise

(in Percentage)

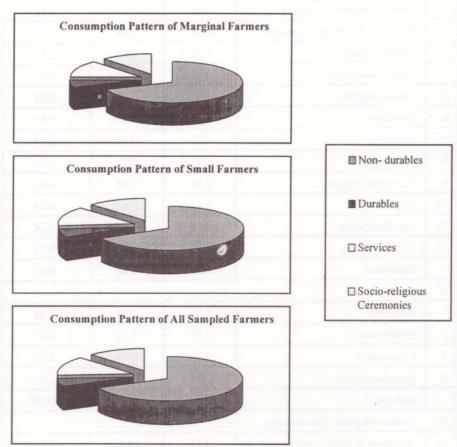
S. No.	Items of Consumption	Marginal Farmers	Small Farmers	All Sampled Farmers
A.	Non-durables			nemitsk i a
1.	Foodgrains:	13.12	11.29	11.82
110	(i) Cereals	10.89	8.92	9.48
	(ii) Pulses	2.23	2.37	2.33
2.	Condiments & spices	1.45	1.68	1.62
3.	Fruits	1.17	1.40	1.34
4.	Vegetables	1.28	1.23	1.25
5.	Milk and milk products	16.20	18.94	18.22
6.	Edible oil	3.13	3.56	3.56
7.	Sugarcane products	4.56	3.72	3.96
8.	Meat, fish & eggs	2.17	2.10	2.13
9.	Tea leaves	3.36	2.47	2.73
10.	Biscuits/bread & sweets	1.59	1.56	1.57
11.	Pickles	0.81	0.85	0.84
12.	Intoxicants and drugs	4.50	4.36	4.41
13.	Fuel and light	5.14	4.67	4.81
14.	Clothing and bedding	4.58	3.83	4.04
15.	Soaps and detergents	2.84	2.20	2.39

Table 4 (Contd.)

16.	Footwear	1.85	1.92	1.91
17.	LPG	1.28	1.36	1.34
	Sub-total	69.04	67.17	67.92
B.	Durables	L Noor St.	Sh. Dien?	78.
1.	House construction/repairs	1.46	2.15	1.96
2.	Radio/TV/VCR/Tape-recorder/CD	0.25	0.19	0.20
3.	Watches/clocks	0.18	0.13	0.14
4.	Electric fan/cooler	0.27	0.27	0.27
5.	Sewing machine	0.04	0.09	0.08
6.	Furniture	0.90	0.80	0.83
7.	Utensils	0.29	0.31	0.31
8.	Car/tempo	0.32	0.22	0.25
9.	Scooter/motorcycle	0.46	0.65	0.60
10.	Bicycles	0.42	0.18	0.24
11.	Handpump/tap	0.28	0.22	0.24
12.	Cellular phone	1.16	0.98	0.74
	Sub-total	6.02	6.20	5.87
C.	Services			
1.	Education	3.70	3.88	3.84
2.	Health care	4.39	4.29	4.32
3.	Conveyance	2.87	3.28	3.17
4.	Communication	2.45	2.74	2.67
	Sub-total	13.41	14.18	13.99
D.	Socio-religious Ceremonies			
1.	Marriages & other social ceremonies	9.37	10.02	9.86
2.	Religious ceremonies	2.16	2.43	2.36
	Sub-total	11.53	12.45	12.22
	Total	100.00	100.00	100.00

Pie chart shown as Figure 1 clearly displays that the sampled farm-size categories spend the major proportion of their total consumption expenditure on non-durable commodities, followed by the expenditure on marriages and other socio-religious ceremonies, services and durable commodities.

Figure 1 : Consumption Pattern of Small and Marginal Farmers : Category-wise



DISTRIBUTION OF CONSUMPTION EXPENDITURE

Distribution of consumption expenditure among the small and marginal farm-size categories as well as both categories taken together in Patiala district of Punjab state has been worked out by taking cumulative percentage of per household and per capita consumption expenditure for each decile group after arranging the same in the ascending order. Gini coefficients are also calculated to justify the

pattern of distribution. Gini ratio conveys better distribution if it is nearer to zero and worse distribution if the same is nearer to unity.

DISTRIBUTION OF HOUSEHOLD CONSUMPTION EXPENDITURE

The distribution of household consumption expenditure is provided in Table 5. The table shows that there are inequalities in the household consumption expenditure. For example, the bottom 10 per cent farm households share only 4.16 per cent of the total consumption of all the sampled farm households, whereas the top 10 per cent of the farm households share slightly more than 15 per cent. This is more than 3 times the consumption of the bottom 10 per cent farm households. A clear contrast is obvious from the fact that the bottom 50 per cent farm households account for 28.63 per cent of the total consumption, whereas 20 per cent of the top farm households account for 31.28 per cent of total consumption of all the sampled farm households. Almost a similar picture can be seen among the small and marginal farm-size categories. It is evident from the table that the bottom 10 per cent of the marginal farm households claim 4.03 per cent of the total household consumption and the corresponding figure for the small farm-size category stands at 4.23 per cent. On the other hand, the top 10 per cent of the marginal and small

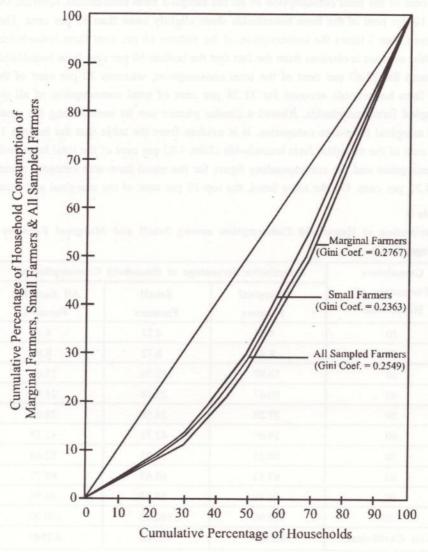
Table 5
Distribution of Household Consumption among Small and Marginal Farmers:
Category-wise

Cumulative	Cumulative Percentage of Household Consumption of				
Percentage of Households	Marginal Farmers	Small Farmers	All Sampled Farmers		
10	4.03	4.23	4.16		
20	8.47	8.72	8.61		
30	13.97	15.90	15.07		
40	20.67	23.18	21.95		
50	27.28	30.58	28.63		
60	39.09	42.71	41.18		
70	50.21	54.05	52.68		
80	67.33	69.65	68.72		
90	84.40	85.17	84.94		
100	100.00	100.00	100.00		
Gini Coefficient	0.2767	0.2363	0.2549		

farmers claim 15.60 per cent and 14.83 per cent respectively.

The foregoing analysis shows that the consumption concentration among the marginal farm-size category is slightly greater than that among the small farm-size category. The amount of Gini coefficient of the marginal farm-size category is also more than that of the small farm-size category (Figure 2).

Figure 2: Concentration of Households Consumption Expenditure among Small and Marginal Farmers: Category-wise



DISTRIBUTION OF PER CAPITA CONSUMPTION EXPENDITURE

The distribution of per capita consumption expenditure of both the farm-size categories is given in Table 6. The table shows that the bottom 10 per cent of the persons of sampled farm households share only 3.58 per cent of the total per capita consumption expenditure. On the other hand, the top 10 per cent persons share 19.12 per cent of the total per capita consumption expenditure. This is more than 5 times the per capita consumption expenditure shared by the bottom 10 per cent persons. When we further compare the share of bottom and top, it is clear that the bottom 60 per cent persons account for only 32.67 per cent of the total per capita consumption expenditure, whereas the top 20 persons account for 37.87 per cent of the total per capita consumption expenditure of the sampled farm households. A similar picture can also be drawn for the small and marginal farm-size categories. The worst distribution is shown by the marginal farm-size category. Gini coefficient also supports this fact (Figure 3).

Table 6
Distribution of Per Capita Consumption among Small and Marginal Farmers:
Category-wise

Cumulative	Cumulative Percentage of Per Capita Consumption of				
Percentage of Persons	Marginal Farmers	Small Farmers	All Sampled Farmers		
10	2.98	3.86	3.58		
20	6.17	6.67	6.46		
30	9.70	10.40	9.92		
40	15.88	16.10	16.00		
50	21.72	22.80	22.45		
60	30.98	33.54	32.67		
70	43.76	45.35	44.82		
80	60.36	63.30	62.13		
90 .	78.02	82.74	80.88		
100	100.00	100.00	100.00		
Gini Coefficient	0.3615	0.3401	0.3438		

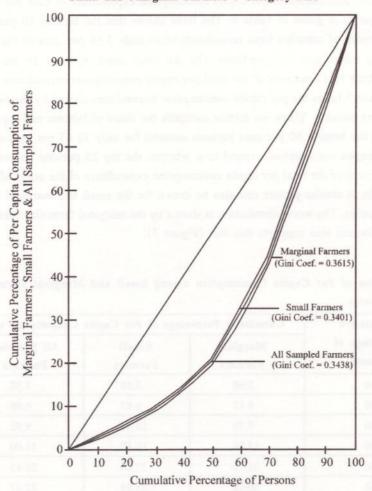


Figure 3: Concentration of Per Capita Consumption Expenditure among Small and Marginal Farmers: Category-wise

The foregoing analysis shows that there are alarming inequalities in the distribution of per capita consumption expenditure in comparison to those in the distribution of household consumption expenditure.

CONCLUSION

The analysis of consumption expenditure of the small and marginal farmers in Patiala district reveals that with the increase in farm-size and income, the proportional share of consumption expenditure on non-durable items diminishes and the reverse is true in the case of durable consumption, services, and socio-religious ceremonies.

An average sampled farm household spends a major proportion of its income on non-durable items, followed by services, marriages and other socio-religious ceremonies and durable commodities. Per capita consumption expenditure of farm households is found to be clearly associated with the household consumption expenditure. The average propensity to consume is found to be more than one for both the farm-size categories; therefore, both the categories incur a deficit. This has an important implication that the small and marginal farmers try to maintain a minimum level of consumption, whether they can afford it or not. The field survey highlighted the fact that the small and marginal farm households take consumption loans at exorbitant rate of interest and in case of non-payment of these loans they sell a part of their already small land holding at throw away prices. The greater value of Gini coefficient of per capita consumption expenditure than that of household consumption expenditure indicates that per capita consumption distribution is highly skewed than the household consumption distribution.

POLICY IMPLICATIONS

The consumption levels and levels of living of the small and marginal farmers should be improved by increasing their income. For this purpose, the central and state governments must take strong initiative for creating sufficient employment opportunities and effectively implement the policies for improving their economic condition. This can be obtained by establishing agro-based or small-scale industries in the rural areas on priority basis. Apart from it, there is an urgent need to educate the farmers about subsidiary occupations so that they may be able to establish their own ventures to earn their livelihood. Further, the implementation of land reforms in favour of the small and marginal farmers will result in increasing their farm-size, and consequently will be helpful in increasing their farm business income and consumption levels. A mass campaign should be launched against the use of intoxicants/drugs and the conservative social values, the symbols of social status, which impose unbearable expenditure on unproductive purposes such as marriages and other socio-religious ceremonies. The small and marginal farmers also need to be educated to manage their living and consumption expenditure within their means.

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