An Analysis of Levels, Patterns and Distribution of Consumption Expenditure among Farm Households in Rural Punjab

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Abstract: The present study is an attempt to analyse the levels, patterns, and distribution of consumption expenditure of farm households in the rural areas of Punjab. The study is based on the primary data of 510 farm households selected through the multi-stage sampling technique and relates to the agricultural year 2015-16. The results of the study reveal that the average consumption expenditure of the large and medium farm-size categories is relatively higher as compared to the marginal, small, and semi-medium farm-size categories. The average annual consumption expenditure of the large farm-size category is 6.66, and 4.42 times of the marginal, and small farm-size categories respectively. The proportionate share of consumption expenditure on non-durable items is inversely associated with the farm size. The marginal, small, and semi-medium farm-size categories spend the most on non-durable items, while the large and medium farm-size categories spend more on durable items and socio-religious ceremonies. The per capita annual consumption expenditure of the large farm-size category is 4.05 times of the marginal farm-size category. The average propensity to consume is greater than unity for all the farm-size categories except the large farm-size category. The study also showed the highly skewed distribution of per household and per capita consumption expenditure among the farm households in the rural areas of Punjab.

Keywords: Consumption expenditure, farm households, distribution, rural, Punjab, durable items, non-durable items and socio-religious ceremonies

INTRODUCTION

Agricultural sector of Punjab plays an important role in driving growth in the state's economy and in industrial and service sectors. It is the important source of livelihood for 26 per cent of the working population, slightly less than the sector's share in Gross State Value Added (GSVA). In 2018-19, agriculture and allied activities contributed 28.7 of the GSVA (as per quick estimates), and expected to contribute a share of 28.1 per cent during the year 2019-20. Punjab has the highest per capita income out of the top seven

states by share of agriculture and allied sector in Gross Value Added (Government of Punjab, 2020). Punjab agriculture had undergone significant structural changes since the advent of Green Revolution during the late 1960s. The traditional agriculture had progressively given way to modern and commercial agriculture (Satish, 2006). The Green Revolution had made impressive strides in Punjab agriculture and achieved many landmarks to enhance income of farmers (Sekhon *et al.,* 2015). But, the Green Revolution seemed to have shifted the advantage of productivity per acre in favour of big farmers. The very requirement of capital to carry out new agriculture had tilted the balance against the small farmers with limited access to capital, and in favour of big farmers who had not only a relatively easy access to capital, but can also make rational use of it because of the favourable farm size (Saini, 1976). The marginal and small farmers were not able to take full advantage of the technology for several reasons and they had to depend on the meagre farm output produced in the small operational area of their farm for maintaining (Senthilnathan, 2000). Farm business income of these farmers was insufficient to even meet their customary household requirements; and they still remained in the clutches of poverty and indebtedness (Kaur, 2016; Singh *et al.,* 2019a; Kaur & Singh, 2015 Agarwal & Gupta, 1982, Kaur *et al.,* 2018). Despite a tremendous advance in technology, many of the marginal and small farmers were still unable to eke out a minimum living and living below the poverty line (Bhalla & Chadha, 1982). The period of Green Revolution caused a significant change in farm family income as well as consumption basket of farmers over the time (Joshi, 2004). The standard of living of a household can be understood from the consumption pattern; and the quality of consumption budget clearly indicates the level of welfare of a household (Mor & Setia, 2014; and Raj, 2016). Consumption clearly contributes to human development when it enlarges the capabilities, enriches the lives of people without adversely affecting the well-being of others as well as encourages lively and creative individuals and communities (United Nations Development Programme, 1998).

Singh and Singh (2020) revealed a positive relationship between per household average consumption expenditure and farm size holdings among farmers in rural Punjab. The increasing trend in consumption expenditure was mainly due to better financial position of the medium and large farm households. The large farm households spent more on marriages and social religious ceremonies, whereas marginal and small farm households spent more on non-durable items. Sekhon *et al*. (2015) revealed that as many as 71 per cent marginal farmers met their household requirements from crops and dairy farming. Small and other category farmers were living under

deficit economic surplus. Singh and Kumari (2005) examined the trends in consumption expenditure pattern of farmers in Ludhiana district of Punjab during the period of 1998-99 to 2002-03. The study pointed out that the medium and large farmers had shown maximum change in their consumption expenditure on socio-religious ceremonies, education, and domestic services, whereas the marginal and small farmers had reflected greater change in expenditure on socio-religious ceremonies, and fuel and furnishing. The study organized by Jakhade (1970) in rural areas of Punjab revealed that inequality in consumption expenditure among rural households had decreased from the period of 1953-54 to 1963-64. The per capita consumption expenditure of the highest class was thirteen times larger than that of the lowest class. Sain and Joshi (1989) studied the distributional pattern of consumption expenditure of farmers in Punjab during the period of 1975-76 to 1983-84. The study revealed that the share of per capita domestic expenditure of the bottom 10 per cent farming population had decreased from 4.50 to 4.11 per cent, whereas the share of top 10 per cent had increased from 20.18 to 20.50 per cent; and Gini Ratio for per capita domestic expenditure had increased from 0.2284 to 0.2402. Thus, the present study is an attempt to examine the levels, patterns, and distribution of consumption expenditure of different farm-size categories in rural areas of Punjab.

METHODOLOGY

The present study is based on the multi-stage sampling technique and relates to the agricultural year 2015-16. In order to examine the levels, patterns, and distribution of consumption expenditure of the farm households, Punjab state has been divided into high, medium, and low productivity regions on the basis of agricultural productivity. For calculating the agricultural productivity, output of major ten crops was aggregated, and average taken for the year 2013-14 (Government of Punjab, 2015). Ludhiana, S.A.S. Nagar, and Mansa districts have been selected from the high, medium, and low productivity regions respectively for avoiding the geographical contiguity and keeping in the view differences in agro-climatic conditions. The selected districts comprise of 21 development blocks. One village from each development block has been selected, and in all, 21 villages have been selected. As many as 10 per cent farm households out of total farm households have been selected randomly for the survey. Thus, a representative sample of 510 farm households has been taken up, out of which 188, 144, 88, 63, and 27 farm households represent the marginal, small, semi-medium, medium, and large farm-size categories respectively. The statistical tools such as percentages and mean values have been used

for tabular analysis. The Gini Coefficient has been calculated; and Lorenz Curves have been drawn to justify the distributional pattern of consumption expenditure.

RESULTS AND DISCUSSION

Levels of Household Consumption Expenditure

Household consumption expenditure is the expenditure incurred by a household on domestic consumption during the reference period. It is the total of monetary values of consumption of various items, *i.e.,* food items, goods and services, and durable articles (National Sample Survey Office, 2005). Table 1 demonstrates the average values of consumption expenditure of the different farm-size categories. The table shows that the average consumption expenditure of an average farm household is Rs. 448615.67 per annum. There are inequalities in the levels of consumption expenditure among the different farm-size categories. The average annual consumption expenditure for the marginal, small, semi-medium, medium, and large farm-size categories is Rs. 228348.05, Rs. 344450.76, Rs. 487372.33, Rs. 830205.19, and Rs. 1521183.52 respectively. It is evident that the average consumption expenditure is positively associated with the farm size. The average annual consumption expenditure of the large farm-size category is 6.66, 4.42, 3.12, and 1.83 times of the marginal, small, semi-medium, and medium farm-size categories respectively. The category-wise average annual consumption expenditure on non-durable and durable items, services, and socio-religious ceremonies increases with an increase in the farm size. The average consumption expenditure of the large and medium farm-size categories is higher as compared to the marginal, small and semi-medium farm-size categories. The high income levels of the large and medium farm-size categories contribute towards their higher consumption expenditure. The findings of the study were supported by the studies conducted by Singh *et al.* (2019a) and Kaur (2015a).

The consumption expenditure on non-durable items accounts the major proportion, *i.e.,* 35.08 per cent of the total consumption expenditure for an average farm household, followed by expenditure on socio-religious ceremonies (23.75 per cent), durable items (21.72 per cent), and services (19.45 per cent). The marginal, small, semi-medium, medium, and large farm-size categories spend 50.30, 41.35, 36.97, 26.84, and 20.10 per cent of the total consumption expenditure on non-durable items respectively; and this share is negatively associated with the farm size. The marginal and small farm-size categories spend a major proportion of their income on non-durable items. It describes that these farm-size categories have low

Table 1: Levels of Consumption Expenditure of Farmers

(Mean Values in Rs. Per Annum)

Items of Consumption	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers
(A) Non-durables						
Foodgrains (i)+(ii)	22079.65	25158.58	29877.16	34733.17	45116.67	27077.13
	(9.67)	(7.30)	(6.13)	(4.18)	(2.97)	(6.03)
	[4473.03]	[4574.29]	[4841.97]	[5053.56]	[5562.33]	[4737.34]
(i) Cereals	18761.14	21353.30	25313.52	29117.30	37516.67	22895.88
	(8.22)	(6.20)	(5.19)	(3.50)	(2.47)	(5.10)
	[3800.75]	[3882.42]	[4102.38]	[4236.47]	[4625.34]	[4005.80]
(ii) Pulses	3318.51	3805.28	4563.64	5615.87	7600.00	4181.25
	(1.45)	(1.10)	(0.94)	(0.68)	(0.50)	(0.93)
	[672.28]	[691.87]	[739.59]	[817.09]	[936.99]	[731.54]
Condiments and spices	2871.06	3248.75	4018.64	4647.62	6955.56	3611.41
	(1.26)	(0.94)	(0.82)	(0.56)	(0.46)	(0.81)
	[581.64]	[590.68]	[651.27]	[676.21]	[857.53]	[631.84]
Vegetables	6416.70	7703.61	9695.45	10928.25	14659.26	8339.49
	(2.81)	(2.24)	(1.99)	(1.32)	(0.96)	(1.86)
	[1299.94]	[1400.66]	[1571.27]	[1590.02]	[1807.31]	[1459.05]
Milk and milk products	34279.47	47780.00	62967.27	75357.14	90500.00	51092.12
	(15.01)	(13.87)	(12.93)	(9.08)	(5.95)	(11.39)
	[6944.55]	[8687.27]	[10204.62]	[10964.20]	[11157.53]	[8938.93]
Fruits	1138.83	1493.06	2142.05	3425.40	5211.11	1910.00
	(0.50)	(0.43)	(0.44)	(0.41)	(0.34)	(0.43)
	[230.71]	[271.46]	[347.15]	[498.38]	[642.47]	[334.17]
Edible oils	3226.60	3907.22	4838.18	5507.94	8222.22	4243.14
	(1.41)	(1.13)	(0.99)	(0.66)	(0.54)	(0.95)
	[653.66]	[710.44]	[784.09]	[801.39]	[1013.70]	[742.37]
Sugarcane products	5425.15	6193.30	6964.60	8152.33	9997.59	6486.63
	(2.38)	(1.80)	(1.43)	(0.98)	(0.66)	(1.45)
	[1099.06]	[1126.05]	[1128.70]	[1186.14]	[1232.58]	[1134.88]
Tea leaves	2455.11	2802.78	3284.09	3680.95	5035.56	2984.35
	(1.08)	(0.81)	(0.67)	(0.44)	(0.33)	(0.67)
	[497.37]	[509.60]	[532.23]	[535.57]	[620.82]	[522.13]
Eggs/meat/mutton/fish	595.74	675.69	923.30	1471.43	3100.00	915.59
	(0.27)	(0.20)	(0.19)	(0.18)	(0.21)	(0.21)
	[120.69]	[122.85]	[149.63]	[214.09]	[382.19]	[160.19]
Biscuits/bread/ sweets	1097.61	1474.65	2157.95	2736.51	4111.11	1749.02
	(0.48)	(0.43)	(0.44)	(0.33)	(0.27)	(0.39)
	[222.36]	[268.12]	[349.72]	[398.15]	[506.85]	[306.00]
Pickles/jams/juices	743.62	955.56	1221.02	1549.21	2762.96	1092.25
	(0.33)	(0.28)	(0.25)	(0.19)	(0.18)	(0.24)
	[150.65]	[173.74]	[197.88]	[225.40]	[340.64]	[191.10]
Intoxicants and drugs	3595.21	3404.86	5007.95	7730.16	14296.30	4862.55
	(1.57)	(0.99)	(1.03)	(0.93)	(0.94)	(1.08)
	[728.34]	[619.07]	[811.60]	[1124.71]	[1762.56]	[850.74]
LPG	3490.43	3962.78	4701.70	5181.59	6907.78	4222.63
	(1.53)	(1.15)	(0.96)	(0.62)	(0.45)	(0.94)
	[707.11]	[720.51]	[761.97]	[753.90]	[851.64]	[738.78]
Electricity	13342.02	15684.38	18764.77	25568.25	37762.96	17742.25
	(5.84)	(4.55)	(3.85)	(3.08)	(2.48)	(3.95)
	[2702.91]	[2851.70]	[3041.07]	[3720.09]	[4655.71]	[3104.13]
Clothing and bedding	8494.68	11013.89	14665.91	20626.98	34666.67	13155.10
	(3.72)	(3.20)	(3.01)	(2.48)	(2.28)	(2.93)
	[1720.91]	[2002.53]	[2376.80]	[3001.15]	[4273.97]	[2301.58]
Footwear	2795.21	3765.97	5056.82	6936.51	10037.04	4354.51
	(1.22)	(1.09)	(1.04)	(0.84)	(0.66)	(0.97)
	[566.27]	[684.72]	[819.52]	[1009.24]	[1237.44]	[761.85]

contd. table 1

Items of Consumption	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers
Washing and toilet articles	2796.01 (1.22) [566.43]	3227.08 (0.94) [586.74]	3877.27 (0.80) [628.36]	4619.05 (0.56) [672.06]	6359.26 (0.42) [784.02]	3518.14 (0.78) [615.52]
Sub-total	**114843.10** **(50.30)** **[23265.63]**	**142452.15** **(41.35)** **[25900.39]**	**180164.15** **(36.97)** **[29197.87]**	**222852.49** **(26.84)** **[32424.27]**	**305702.04** **(20.10)** **[37689.29]**	**157356.31** **(35.08)** **[27530.61]**
(B) Durables						
House construction, addition of rooms and major repairs	24271.28 (10.63) [4917.03]	57722.22 (16.76) [10494.95]	82965.91 (17.05) [13445.67]	220317.46 (26.54) [32055.43]	440703.70 (28.97) [54333.33]	90107.84 (20.09) [15765.01]
Radio/TV/LCD/ VCR/CD/DVD player	102.13 (0.05) [20.69]	184.72 (0.05) [33.59]	379.55 (0.08) [61.51]	638.10 (0.08) [92.84]	948.15 (0.06) [116.89]	284.31 (0.06) [49.74]
Watches and clocks	37.18 (0.02) [7.53]	40.00 (0.01) [7.27]	68.30 (0.01) [11.07]	84.92 (0.01) [12.36]	153.33 (0.01) [18.90]	55.39 (0.01) [9.69]
Electric fans/ coolers/ACs	438.14 (0.19) [88.76]	581.88 (0.17) [105.80]	889.77 (0.18) [144.20]	1292.06 (0.16) [187.99]	3270.37 (0.21) [403.20]	812.08 (0.18) [142.08]
Sewing machine	23.14 (0.01) [4.69]	30.21 (0.01) [5.49]	61.93 (0.01) [10.04]	46.83 (0.01) [6.81]	35.19 (0.00) [4.34]	35.39 (0.01) [6.19]
Washing machine	209.57 (0.09) [42.46]	236.46 (0.07) [42.99]	337.50 (0.07) [54.70]	584.92 (0.07) [85.10]	874.07 (0.06) [107.76]	320.78 (0.07) [56.12]
Cots	119.95 (0.05) [24.30]	132.64 (0.04) [24.12]	156.25 (0.03) [25.32]	230.16 (0.04) [33.49]	670.37 (0.04) [82.65]	172.55 (0.04) [30.19]
Furniture	150.53 (0.07) [30.50]	174.31 (0.05) [31.69]	403.41 (0.08) [65.38]	642.86 (0.08) [93.53]	1444.44 (0.09) [178.08]	330.20 (0.07) [57.77]
Utensils	101.86 (0.04) [20.64]	175.35 (0.05) [31.88]	189.43 (0.04) [30.70]	273.02 (0.03) [39.72]	509.26 (0.03) [62.79]	180.43 (0.04) [31.57]
Refrigerator	330.85 (0.15) [67.03]	279.86 (0.08) [50.88]	360.23 (0.07) [58.38]	503.97 (0.06) [73.33]	1081.48 (0.07) [133.33]	382.65 (0.09) [66.95]
Bicycles	102.18 (0.05) [20.70]	133.06 (0.04) [24.19]	158.30 (0.03) [25.65]	181.27 (0.02) [26.37]	151.85 (0.01) [18.72]	132.98 (0.03) [23.27]
Computer/laptop/ printer	57.45 (0.03) [11.64]	85.42 (0.02) [15.53]	214.77 (0.04) [34.81]	291.27 (0.03) [42.38]	485.19 (0.03) [59.82]	144.02 (0.03) [25.20]
Motorcycles/ scooters/mopeds	1030.85 (0.45) [208.84]	1273.61 (0.37) [231.57]	2038.64 (0.42) [330.39]	2522.22 (0.30) [366.97]	3648.15 (0.24) [449.77]	1596.08 (0.36) [279.25]
Jeeps/cars	492.55 (0.22) [99.78]	895.83 (0.26) [162.88]	1757.95 (0.36) [284.90]	3090.48 (0.37) [449.65]	6166.67 (0.41) [760.27]	1446.08 (0.32) [253.00]
Geysers	24.47 (0.01) [4.96]	131.60 (0.04) [23.93]	161.93 (0.03) [26.24]	234.92 (0.03) [34.18]	251.85 (0.02) [31.05]	116.47 (0.03) [20.38]
Inverter/generator	170.21 (0.07) [34.48]	419.44 (0.12) [76.26]	756.25 (0.16) [122.56]	1011.11 (0.11) [147.11]	1351.85 (0.09) [166.67]	508.14 (0.11) [88.90]
Cellular/landline phones	190.90 (0.07) [38.67]	264.51 (0.08) [48.09]	644.32 (0.13) [104.42]	815.87 (0.10) [118.71]	1301.48 (0.09) [160.46]	425.92 (0.09) [74.52]

Items of Consumption	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers
Mixer/juicer	12.23	19.10	35.91	49.68	53.70	25.08
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)
	[2.48]	[3.47]	[5.82]	[7.23]	[6.62]	[4.39]
RO	109.57	204.86	357.95	550.79	755.56	268.04
	(0.04)	(0.05)	(0.07)	(0.06)	(0.06)	(0.05)
	[22.20]	[37.25]	[58.01]	[80.14]	[93.15]	[46.90]
Almirah (steel/wooden)	34.04	63.54	113.07	163.49	525.93	98.04
	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)
	[6.90]	[11.55]	[18.32]	[23.79]	[64.84]	[17.15]
Gas/stove/oven/ iron press	17.97	25.69	42.84	55.87	80.37	32.43
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
	[3.64]	[5.17]	[6.95]	[8.13]	[9.91]	[5.68]
Sub-total	**28027.07**	**63074.31**	**92094.20**	**233581.27**	**464462.96**	**97474.90**
	(12.27)	**(18.31)**	**(18.90)**	**(28.13)**	**(30.53)**	**(21.72)**
	[5677.90]	**[11468.06]**	**[14925.03]**	**[33985.27]**	**[57262.56]**	**[17053.93]**
(C) Services						
Education	17843.51	30439.58	46845	76515.87	111777.78	38624.98
	(7.82)	(8.84)	(9.61)	(9.22)	(7.35)	(8.61)
	[3614.85]	[5534.17]	[7591.82]	[11132.79]	[13780.82]	[6757.72]
Healthcare	27132.45	26386.11	42712.50	50787.30	63207.41	34441.96
	(11.88)	(7.66)	(8.76)	(6.12)	(4.16)	(7.68)
	[5496.66]	[4797.47]	[6922.10]	[7389.38]	[7792.69]	[6025.87]
Conveyance	5498.40	6443.06	8382.95	11068.25	16659.26	7541.76
	(2.41)	(1.87)	(1.72)	(1.33)	(1.10)	(1.68)
	[1113.90]	[1171.46]	[1358.56]	[1610.39]	[2053.88]	[1319.49]
Communication	2703.09	3429.86	4503.98	5917.46	12533.33	4136.53
	(1.18)	(1.00)	(0.92)	(0.71)	(0.81)	(0.92)
	[547.61]	[623.61]	[729.93]	[860.97]	[1545.21]	[723.72]
Entertainment	1789.79	2281.25	2958.18	3371.43	5174.07	2504.71
	(0.78)	(0.66)	(0.61)	(0.41)	(0.34)	(0.56)
	[362.59]	[414.77]	[479.41]	[490.53]	[637.90]	[438.22]
Sub-total	**54967.23**	**68979.86**	**105402.61**	**147660.32**	**209351.85**	**87249.94**
	(24.07)	**(20.03)**	**(21.62)**	**(17.79)**	**(13.76)**	**(19.45)**
	[11135.60]	**[12541.79]**	**[17081.82]**	**[21484.06]**	**[25810.50]**	**[15265.00]**
(D) Socio-religious Ceremonies						
Marriages	26829.79	66111.11	104261.36	212301.59	511851.85	99870.59
	(11.75)	(19.19)	(21.39)	(25.57)	(33.65)	(22.26)
	[5435.34]	[12020.20]	[16896.87]	[30889.15]	[63105.02]	[17473.07]
Other social ceremonies	1345.74	1402.78	2556.82	5873.02	13518.52	2774.51
	(0.59)	(0.41)	(0.53)	(0.71)	(0.89)	(0.62)
	[272.63]	[255.05]	[414.36]	[854.50]	[1666.67]	[485.42]
Religious ceremonies	2335.11	2430.56	2893.18	7936.51	16296.30	3889.41
	(1.02)	(0.71)	(0.59)	(0.96)	(1.07)	(0.87)
	[473.06]	[441.92]	[468.88]	[1154.73]	[2009.13]	[680.48]
Sub-total	**30510.64**	**69944.44**	**109711.36**	**226111.11**	**541666.67**	**106534.51**
	(13.36)	**(20.31)**	**(22.51)**	**(27.24)**	**(35.61)**	**(23.75)**
	[6181.03]	**[12717.17]**	**[17780.11]**	**[32898.38]**	**[66780.82]**	**[18638.97]**
Total (A+B+C+D)	**228348.05**	**344450.76**	**487372.33**	**830205.19**	**1521183.52**	**448615.67**
	(100.00)	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**
	[46260.16]	**[62627.41]**	**[78984.83]**	**[120791.98]**	**[187543.17]**	**[78488.50]**

Source: Field Survey, 2015-16

Note: 1. Figures in brackets ( ) represent percentage of total consumption expenditure.

2. Figures in brackets [ ] represent per capita consumption expenditure.

level of income. The results of the study were supported by the study conducted by Kaur and Singh (2015), stated that the consumption pattern

of the marginal and small farm-size categories was of subsistence nature in rural Punjab. The field survey has provided that some marginal farm-size category households, whose economic condition is really miserable, do not get foodgrain items at subsidized rates under the Public Distribution System (PDS). Milk and milk products is one of the most important items of non-durables which accounts for 11.39 per cent of the total consumption expenditure. This proportion is the highest (15.01 per cent) for the marginal farm-size category, and the lowest (5.95 per cent) for the large farm-size category. The field survey has shown that milk and milk products are generally produced at home because a very large majority of farm households rear milch animals as their hard work in the fields requires protein and fat rich food. The second important item is foodgrains; and the proportionate share of this item is 6.03 per cent for an average farm household. This share varies from 2.97 per cent for the large farm-size category to 9.67 per cent for the marginal farm-size category. An average farm household spends 3.95 per cent of the total consumption expenditure on electricity; and this proportionate share is inversely associated with the farm size. The proportion of consumption expenditure on clothing and bedding is 2.93 per cent for an average farm household; and this proportion is the highest (3.72 per cent) for the marginal farm-size category, and the lowest (2.28 per cent) for the large farm-size category. The non-durable items such as vegetables, and sugarcane products constitute 1.86, and 1.45 per cent to the total consumption expenditure for an average farm household. The proportionate share of consumption expenditure incurred on vegetables and sugarcane products is negatively related with the farm size. The items such as fruits, eggs/meat/mutton/fish, biscuits/bread/ sweets, and pickles/jams/juices contribute very less in the total consumption expenditure. The proportionate share of consumption expenditure on food items such as foodgrains, milk and milk products, vegetables, sugarcane products, and others has declined with an increase in the farm size. Kaur and Kaur (2020) in their study on income and consumption pattern of marginalised categories in rural Punjab, revealed that food expenditure had a greater share in total domestic expenditure among the marginal and small farm-size categories; and the proportion of expenditure on food items decreased with an increase in income level.

The proportion of consumption expenditure on durable items is the highest (30.53 per cent) for the large farm-size category, and the lowest (12.27 per cent) for the marginal farm-size category. This percentage ratio is 18.31, 18.90, and 28.13 for the small, semi-medium, and medium farm-size categories respectively. The proportionate share of consumption expenditure on durable items is positively related with the farm size. An

average farm household spends 20.09 per cent of the total consumption expenditure on house construction, addition of rooms and major repairs; and this proportionate share increases with an increase in the farm size. It reveals that farmers prefer to construct costly houses for demonstration and quality living as their level of income increases. The relative share of consumption expenditure on next durable item, *i.e.,* motorcycles/scooters/mopeds is 0.36 per cent for an average farm household. This share is the highest (0.45 per cent) for the marginal farm-size category, and the lowest (0.24 per cent) for the large farm-size category. The proportionate share of consumption expenditure on jeeps/cars is 0.32 per cent for an average farm household; and this share is the highest (0.41 per cent) for the large farm-size category, and the lowest (0.22 per cent) for the marginal farm-size category.

The relative share of consumption expenditure on services is 19.45 per cent for an average farm household. This share is the highest (24.07 per cent) for the marginal, followed by semi-medium (21.62 per cent), small (20.03 per cent), medium (17.79 per cent) and large (13.76 per cent) farm-size categories. Among the different constituents of services, the consumption expenditure on education accounts for 8.61 per cent for an average farm household; and this share is the highest (9.61 per cent) for the semi-medium farm-size category, and the lowest (7.35 per cent) for the large farm-size category. An average farm household spends 7.68 per cent on healthcare; and this proportion is the highest (11.88 per cent) for the marginal farm-size category, and the lowest (4.16 per cent) for the large farm-size category. It has been noticed during the field survey that some family members of the farm households suffer from cancer disease. It may have been due to poor quality of water, use of pesticides in excess on cereals and vegetables, and the like. There is lack of primary healthcare facilities in the rural areas of Punjab. They find no other option and then to get treatment from private medical practitioners who charge high fees from them. It has also been noticed that they meet their expenses by availing loans from various sources. The expenditure on conveyance, communication, and entertainment accounts for 1.68, 0.92, and 0.56 per cent for an average farm household respectively. However, the proportionate share of expenditure on conveyance and entertainment is negatively associated with the farm size.

The marginal, small, semi-medium, medium, and large farm-size categories spend respectively 13.36, 20.31, 22.51, 27.24, and 35.61 per cent of the total consumption expenditure on socio-religious ceremonies; and this proportion is positively related with the farm size. The field survey has revealed that the farming community in the rural areas of Punjab feels proud in spending large amounts of money as their income increases. This

can be explained in the socio-cultural terms. The relatively rich farmers intend to show their superiority over the other relatively poor farmers or relatives. An average farm household spends the maximum, *i.e.,* 22.26 per cent on marriages, followed by expenditure on religious ceremonies (0.87 per cent) and other social ceremonies (0.62 per cent). The percentage of consumption expenditure on marriages is directly related with the farm size; and this percentage has increased from 11.75 in the case of marginal farm-size category to 33.65 for the large farm-size category. The relative share of consumption expenditure on religious ceremonies is the highest (1.07 per cent) for the large farm-size category, and the lowest (0.59 per cent) for the semi-medium farm-size category. The farmers from large and medium farm-size categories spend more on durable items and socio-religious ceremonies because they possess highly productive assets like agricultural machinery/equipment, livestock, etc.; and own relatively large land holdings which help them to enhance their income. Their high level of income and demonstration tendency leads to more consumption expenditure on durable items and other unproductive activities.

Since there are differences in the average family size among the different farm-size categories, it is of utmost significance to look into the levels of per capita consumption expenditure of different farm-size categories. The per capita consumption expenditure of an average farm household is worth Rs. 78488.50, per annum. The per capita annual consumption expenditure of the marginal, small, semi-medium, medium, and large farm-size categories is Rs. 46260.16, Rs. 62627.41, Rs. 78984.83, Rs. 120791.98, and Rs. 187543.17 respectively. The per capita consumption expenditure is positively associated with the farm size. The per capita annual consumption expenditure of the large farm-size category is 4.05, 2.99, 2.37, and 1.55 times of the marginal, small, semi-medium, and medium farm-size categories respectively. The results further show that the marginal, small, and semi-medium farm-size categories allocate more per capita consumption expenditure to the non-durable items, whereas the semi-medium, and medium farm-size categories allocate more per capita consumption expenditure to durable items, and socio-religious ceremonies respectively. It is evident that the farmers representing large and medium farm-size categories are relatively better placed, while those in the marginal, small, and semi-medium farm-size categories are leading a miserable life. The studies organized by Kaur (2015b), and Kaur *et al.* (2016) showed the similar results.

AVERAGE PROPENSITY TO CONSUME

The average propensity to consume is the proportion of consumption expenditure and income. It is estimated by dividing the average household

consumption expenditure by the average household income. Table 2 highlights the data relating to the average propensity to consume of all the farm-size categories. The table reveals that the average propensity to consume is estimated at 1.10 for an average farm household. It is the highest (1.35) for the marginal, followed by small (1.29), semi-medium (1.07), medium (1.01) and large (0.91) farm-size categories. The average propensity to consume is greater than unity for all the farm-size categories except the large farm-size category. Rao and Bathaiah (1993); and Kaur and Singh (2015) in their studies revealed that category-wise average propensity to consume had declined with an increase in the farm size among the farm households.

Table 2: Average Propensity to Consume of Farmers

Farm-Size Categories	Average Consumption (Rs.)	Average Income (Rs.)	Average Propensity to Consume
Marginal Farmers	228348.05	168889.44	1.35
Small Farmers	344450.76	266248.07	1.29
Semi-medium Farmers	487372.33	454817.79	1.07
Medium Farmers	830205.19	819497.27	1.01
Large Farmers	1521183.52	1679533.61	0.91
All Sampled Farmers	448615.67	406060.07	1.10

Source: Field Survey, 2015-16

It is clear from the table that the marginal, small, semi-medium, and medium farm-size categories are found to be incurring deficit in the rural areas of Punjab; and the marginal and small farm-size categories incur relatively more deficit than the semi-medium and medium farm-size categories. These farm-size categories have to fulfil their basic requirements by obtaining loans from institutional and non-institutional sources because their average income is inadequate to meet their daily expenses; and saving is really difficult for them. Only the large farm-size category has some surplus income over their consumption expenditure.

DISTRIBUTION OF PER HOUSEHOLD CONSUMPTION EXPENDITURE

The extent of inequality in the distribution of consumption expenditure among the different farm-size categories in the rural areas of Punjab 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. The distribution of household

consumption expenditure of the different farm-size categories is given in Table 3. The table shows that the bottom 10 per cent farm households share only 1.75 per cent, whereas the top 10 per cent farm households share 39.75 per cent of the total consumption expenditure. The share of consumption expenditure of the top 10 per cent farm households (39.75 per cent) is more than that of the bottom 70 per cent farm households (32.76 per cent).

Table 3: Distribution of Household Consumption Expenditure of Farmers

Cumulative Percentage of Households	Cumulative Percentage of Household Consumption Expenditure					
	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers
10	2.47	2.53	2.77	2.45	1.75	1.75
20	6.33	6.45	6.34	5.69	3.66	4.60
30	11.44	11.19	11.31	9.51	7.54	8.25
40	17.29	16.71	17.20	13.73	12.63	12.61
50	24.22	23.12	23.60	18.78	18.66	17.96
60	32.16	30.52	30.75	24.94	26.23	24.58
70	41.35	40.22	38.99	32.48	36.33	32.76
80	52.88	52.78	49.79	45.38	52.66	43.55
90	70.09	69.95	69.39	63.56	76.78	60.25
100	100.00	100.00	100.00	100.00	100.00	100.00
Gini Coefficient	0.3835	0.3931	0.3997	0.4666	0.4275	0.4874

Source: Field Survey, 2015-16

The category-wise data depict that the bottom 10 per cent farm households of the marginal farm-size category share only 2.47 per cent, and the top 10 per cent farm households of this category share 29.91 per cent of the total consumption expenditure. The top 10 per cent farm households of the small, semi-medium, medium, and large farm-size categories claim 2.53, 2.77, 2.45, and 1.75 per cent respectively, whereas the top 10 per cent farm households of the respective farm-size categories share 30.05, 30.61, 36.44, and 23.22 per cent of the total consumption expenditure. The value of Gini Coefficient for all the farm households taken together is 0.4874 which reflects that there is unequal distribution of per household consumption expenditure. The results of present study are in consonance with the findings of Singh *et al.* (2019b). The Gini Coefficient values for the marginal, small, semi-medium, medium, and large farm-size categories are 0.3835, 0.3931, 0.3997, 0.4666, and 0.4275 respectively which shows that the distribution of household consumption

expenditure is relatively more unequal in the case of medium farm-size category, and less unequal for the marginal farm-size category. The Lorenz Curves drawn in Figure 1 highlight the concentration of household consumption expenditure among the different farm-size categories. There

Figure 1: Concentration of Per Household Consumption Expenditure
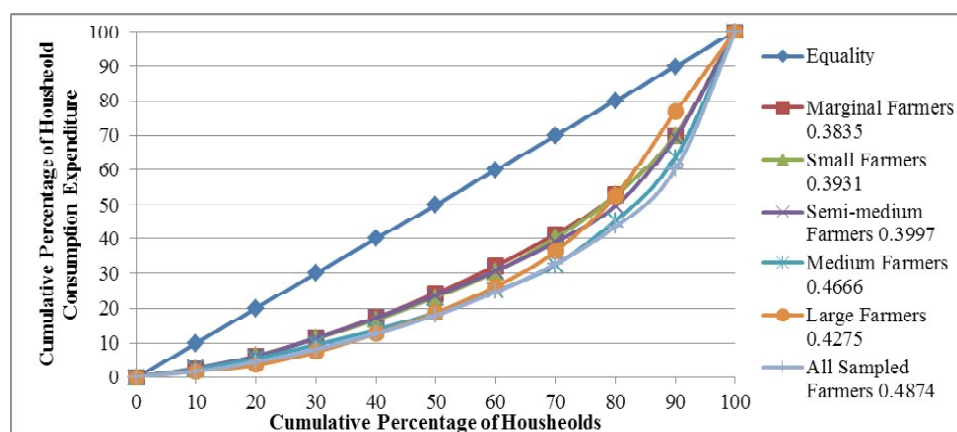
Note: Based on Table 3

is a large difference between the Lorenz Curve of the medium farm-size category and the line of equality. Thus, the concentration of household consumption expenditure is greater in the case of medium farm-size category. On the contrary, there is a small difference between these two lines in the case of marginal farm-size category.

DISTRIBUTION OF PER CAPITA CONSUMPTION EXPENDITURE

Table 4 carries the data showing the distribution of per capita consumption expenditure of the different farm-size categories. The analysis provides that the bottom 10 per cent persons of the farm households appropriate only 2.09 per cent, while the top 10 per cent persons of the farm households account for 38.59 per cent of the total per capita consumption expenditure. The bottom 70 per cent persons of the farm households share 35.86 per cent of the total per capita consumption expenditure which is less than the share of the top 10 per cent persons of the farm households (38.59 per cent). The bottom 10 per cent persons of the marginal, small, semi-medium, medium, and large farm-size categories share only 2.82, 2.76, 2.83, 3.02, and 3.06 per cent respectively, whereas the top 10 per cent persons of the respective farm-size categories share 30.84, 30.11, 33.99, 36.19, and 34.84 per cent of the total per capita consumption expenditure.
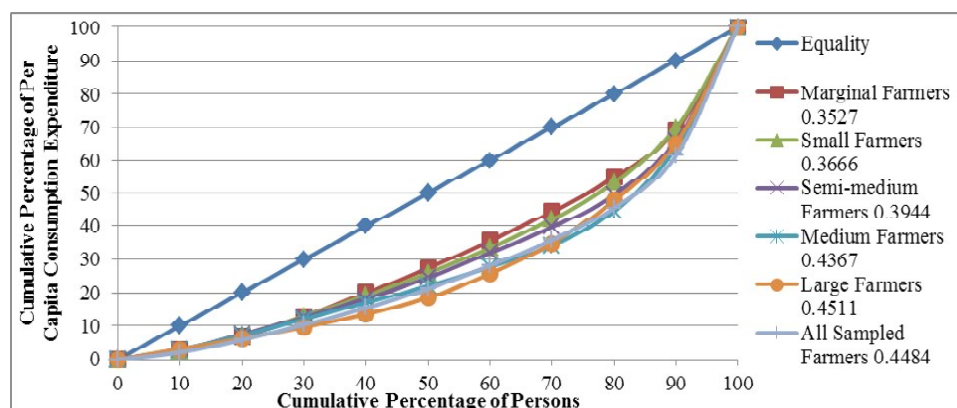
Table 4: Distribution of Per Capita Consumption Expenditure of Farmers

Cumulative Percentage of Persons	Cumulative Percentage of Per Capita Consumption Expenditure					
	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers
10	2.82	2.76	2.83	3.02	3.06	2.09
20	6.79	7.23	7.49	7.14	6.28	5.82
30	12.93	12.94	12.54	12.07	9.65	10.36
40	19.89	19.12	18.28	17.00	13.55	15.39
50	27.34	25.86	24.52	22.07	18.51	21.17
60	35.53	33.46	31.96	27.70	25.72	28.10
70	44.49	42.18	39.70	34.23	34.86	35.86
80	54.71	53.24	49.50	44.61	47.86	45.62
90	69.16	69.89	66.01	63.81	65.16	61.41
100	100.00	100.00	100.00	100.00	100.00	100.00
Gini Coefficient	**0.3527**	**0.3666**	**0.3944**	**0.4367**	**0.4511**	**0.4484**

Source: Field Survey, 2015-16

The value of Gini Coefficient is 0.4484 for all the farm households taken together which indicates that the distribution of per capita consumption expenditure is highly skewed. The results of the present study are supported by the study conducted by Singh *et al.* (2017). The Gini Coefficient values for the marginal, small, semi-medium, medium, and large farm-size categories are 0.3527, 0.3666, 0.3944, 0.4367, and 0.4511 respectively. The distribution of per capita consumption expenditure is more uneven among the medium and large farm-size categories than the marginal, small, and semi-medium farm-size categories.

The Lorenz Curves drawn in Figure 2 show the concentration of per capita consumption expenditure among the different farm-size categories.

Figure 2: Concentration of Per Capita Consumption Expenditure

Note: Based on Table 4

It is evident that the concentration of per capita consumption expenditure is high in the case of large farm-size category as the difference between the Lorenz Curve of this farm-size category and the line of equality is the greatest. On the other hand, the difference between the Lorenz Curve of the marginal farm-size category and the line of equality is the minimum which explains that the concentration of per capita consumption expenditure is relatively low for this farm-size category.

CONCLUSIONS AND POLICY IMPLICATIONS

The foregoing analysis reveals that average consumption expenditure of an average farm household is Rs. 448615.67, per annum. There are inequalities in the levels of consumption expenditure among the different farm-size categories. The average annual consumption expenditure of the large farm-size category is 6.66, and 4.42 times of the marginal, and small farm-size categories respectively. The average annual consumption expenditure incurred on non-durable and durable items, services, and socio-religious ceremonies increases with an increase in the farm size. The marginal and small farm-size categories spend more on non-durable items, whereas the medium and large farm-size categories spend more on durable items and socio-religious ceremonies. The average propensity to consume for the marginal, small, semi-medium, and medium farm-size categories is more than unity which shows that these farm-size categories are unable to fulfil their basic necessities of life from their income and they have to borrow from institutional and non-institutional sources. The per capita consumption expenditure of the large farm-size category is 4.05, and 2.99 times of the marginal, and small farm-size categories respectively. It reveals that economic conditions of the marginal and small farm-size categories are miserable in the rural areas of Punjab. The marginal and small farm-size categories spend most of their consumption expenditure on food items which shows that these farm-size categories have low level of income. Thus, the government should distribute essential food commodities at subsidised rates under the Public Distribution System (PDS) to the poor farmers for providing them food and nutritional security. There is need to raise their levels of income by developing subsidiary occupations and agro-based industries at the village level. The government should provide loans either interest free or at low rates of interest to the marginal and small farmers. About 24 per cent of the total consumption expenditure is incurred on socio-religious ceremonies. A mass campaign should be launched against the unproductive expenditure on the marriages and socio-religious ceremonies. The results reveal that in the case of marginal farm-size category, 11.88 per cent of the total consumption expenditure is incurred on healthcare. The

farmers belonging to this category are unable to meet the expenses for their treatment of some diseases without availing loans. The field survey has shown that most of the farmers are getting treatment from the village medical practitioners due to poor functioning of the government primary health care centers/dispensaries. Thus, the functioning of these primary health centers in rural areas needs to be improved; and there is a need to develop multi-specialty hospitals keeping in mind the healthcare requirements of the rural population. The household consumption expenditure increases with an increase in the farm size. Thus, land reforms should be implemented earnestly and the distribution of land in favour of the marginal and small farm-size category farmers will increase their size of land holdings and farm business income as well as consumption expenditure.

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