



ASSET BASED REGIONAL INEQUALITIES IN RURAL PUNJAB

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ABSTRACT

This paper based on primary data uses the Gini coefficient to examine the severity of assets inequality in rural Punjab. Inequalities related to agricultural assets can be found not only among states but also among different regions and households categories. This analysis deals with the composition of assets of the rural households across the different categories. The value of per capita household assets is highest in favor of Malwa followed by Majha and Doaba. Overall the land owning households in all three regions show quite an unequal distribution of assets compared to landless households of all three regions. Considering all households together the inequality of household assets is quite high in all three regions, with the same being lowest in Doaba, followed by Malwa and the highest in Majha.

Keywords: Inequality, farm households, household analysis

JEL code: D63, Q12, R20

INTRODUCTION

To change the Indian agriculture from a traditional one, many institutional and infrastructural changes were introduced. These changes gave positive results as food grains output again rose to 82.02 million tonnes in 1960-61. Despite all this India was reliant upon foreign countries for food to feed the growing inhabitants.

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So High–Yielding Varieties Programme was started in *Kharif* season of 1966. This program was reliant on better irrigation facilities, soaring yield mixture of seeds, fertilizers, insect repellent and insecticides. Post 1966 years, the agricultural production increased substantially due to this new agricultural policy and farm productivity was increasing at high rate particularly after the initiation of modern inputs (i.e. high yield varieties seeds, fertilizers and pesticides). There is a widespread belief that the New Agriculture Technology is mainly confined to the farmers with large holdings. But, India is a territory of undersized farmers. The small holding nature of Indian agriculture is much more well-known today than ever before. According to NABARD report, landholdings in the marginal and small category constitute 85 per cent of all farming wealth in the country and around forty-five per cent of the total cultivated area (NABARD, 2014).

As the agricultural policies were reliant on better irrigation facilities, high yielding varieties of seeds, fertilizers, insect repellent and insecticides same happened these policies were more effective in those states with better irrigation facilities (Dhanagare, 1987). To be deficient in of a steady agrarian organism in India has made it hard for New Agricultural Technology to contact each person optimistically. This is for the reason that a stiff communal formation which makes it hard for those with no money to better their social situation. Those with extra wealth (and therefore more land) can have enough money to buy seeds and chemicals essential to participate in the market (Sebby, 2010).

Farm income has increased inequalities related to income among different regions also (Chowdhery 1970; Bardhan, 1974). Income inequality also creates assets inequality. These two inequalities (income and assets) are correlated. Inequality related to income increases asset inequality and assets inequality increases income inequality. Inequalities related to agricultural assets can be found not



only among states but also among different regions and households categories (Laxminarayan 1979; Rawal 2008; Toor *et al.*, 2018). Inequalities not only increased in rural areas but also widened among rural and urban areas too (Deaton and Dreze, 2002).

Inequalities are not only based on assets like land, machinery or consumption but these are also based on gender. As per OXFAM (2020) report more than 74 percent of entire national wealth is accumulated among ten percent Indian population and almost three-fourth of the wealth generated by the country in 2017 was accumulated in the wealth of one percent top richest persons. Health care services, which are among the basic facility needed by people of a country, are not affordable for major portion of population in India. Annual health care cost for people is so high that 63 million people are getting pushed into poverty because of this (Basu *et al.*, 2020). Keeping in mind the present situation this paper tries to examine the assets inequality among different household categories among different regions of rural Punjab.

MATERIAL AND METHODS

This paper uses primary data collected through a well designed schedule from three different regions (Malwa, Doaba and Majha) of Punjab. For the survey information from 591 households has been collected through personal interview keeping in mind geographical spread of the three regions. The actual collection of data is related to the year 2015-16. Data collection has been completed during March to July 2016. Therefore, while interpreting the figures discussed in the paper, it shall be kept in mind that most of the statistical information pertains to the agricultural year 2015-16. The analysis deals with the composition of assets of the rural households across the different categories and regions. Mean values has been used for analysis of assets. Gini coefficient has been used to show the inequality among different



categories and different regions.

RESULTS AND DISCUSSION

Region-wise per capita value of household durables

The value of per capita household assets possessed by the different rural categories shows that value of per capita household assets is highest in favor of Malwa followed by Majha and Doaba (Table 1). The value of per capita household durable assets for marginal farm households, small farm households, agricultural labour households and non-agricultural labour households is the highest in Doaba. This value is the highest for medium farm, large farm and 'Other' households in Malwa. The value of per capita household durable assets for artisan households is the highest in Majha.

The per capita values of household durable assets bears a positive relationship with the farm size in all the regions under study for the farming community. However, there are considerable variations in the range of per capita values of durable assets.

Region-wise value of per capita farm assets

The per capita values of farm assets are depicted in Table 2. The table illustrate that per capita value is the highest (Rs. 868846) in Malwa, and the corresponding figures for Majha and Doaba are Rs. 620689 and Rs. 336415, respectively.

The value of per capita land is worth Rs. 853028 for Malwa followed by Rs. 605267 for Majha and Rs. 328676 for Doaba. The per capita value of mechanical implements is highest for Majha followed by Malwa and Doaba. The per capita value of farm building is the highest for Malwa, followed by Doaba and Majha. Next in order of magnitude is the value of human drawn implements. This value is the highest for Malwa, followed by Majha and Doaba.



The per capita values of the farm assets in all the regions are positively associated with the land holdings. The average values for most of individual farm assets follow the average pattern in all the three regions.

Region-wise value of per capita livestock assets

The per capita values of livestock assets across the regions, shows that the per capita value of livestock assets is highest in Majha, followed Malwa and Doaba (Table 3). The per capita values bear an optimistic correlation amid the land holdings. The per capita value of buffaloes accounts for a major share in all the regions.

The cows appear at the second place. The per capita value of others is the highest in Malwa, followed by Doaba and Malwa. The analysis shows that the rural households in Punjab mainly prefer to keep buffaloes and cows because these are the major source of milk and milk products.

Region-wise distribution of assets

The distribution of household assets among the rural households is given in Table 4. When we compare household assets of land possessing households and landless households in different regions, inequality seems wider in land possessing households than the households deprived of land in three regions. The table shows that lower ten per cent of land owning households acquire only 1.52 percent of whole assets owned by all the land owning households taken together, whereas topmost ten percent households share 42.30 percent of the assets of all the land owning households in Majha. It is 27.83 times the assets shared by the bottom 10 percent land owning households. However, the corresponding figures for the Malwa and Doaba are 2.21, 41.84 and 3.40, 32.77 percent, respectively.

An obvious disparity is apparent from the information that the lower 50 percent land owning



households report only for 14.43 percent of total assets, whereas top 50 percent households report 85.57 percent of the total assets owned by all the land owning households taken together in Majha. Almost a similar pattern can be seen in the other two regions. In all the three regions inequality among the land owning households is higher in Majha, than in Malwa and Doaba.

Around one-third of total household assets are shared by lower 50 percent of landless households in Majha. The remaining two-third of the total household assets, are shared by the upper 50 percent of the landless households in Majha. Around three-fifth of the total landless households own 50 percent of total assets owned by landless households in Majha. The remaining 50 percent of assets are possessed by 40 percent of total landless households in Majha. However, corresponding figures for Malwa stand at 80 and 20 percent and for Doaba stand almost at 50-50 per cent.

The table shows that lower ten percent of all sampled households attain only 0.18 percent of total assets owned by each and every household taken together, whereas topmost ten percent households share 66.71 percent of the assets of each and every household in Majha. However, the corresponding figures for Malwa and Doaba are 0.20, 61.71 and 0.97, 63.96 percent, respectively.

Lower half of total households claim only 2.10 percent of entire assets, whereas the top half attain 97.90 percent of total assets owned by total households taken together in Majha. Almost a similar pattern can be seen in Malwa. In Doaba, the lower half of total households claims only 6.23 percent of whole assets, whereas top half attains 93.77 percent of whole assets owned by total households taken together.

This shows that the concentration of assets among the land owning households is greater than the landless households. The values of Gini coefficient support this fact. These values are 0.50, 0.39 and 0.53 for the land owning households in Malwa, Doaba and Majha respectively. A relatively better distribution



of per household assets is observed in the case of landless households. In their case, the concentration coefficients are 0.40, 0.02 and 0.20 in Malwa, Doaba and Majha, respectively.

Overall the land owning households in all three regions (Malwa, Doaba and Majha) show quite an unequal distribution of assets compared to landless households. The distribution of assets among the landless households in Doaba is fairly equal, the Gini-coefficient for this region being just 0.02 which is the lowest among all the regions for all the categories of households. This is followed by somewhat unfair distribution of assets among the landless households of Majha (the Gini-coefficient being 0.20 for landless households). For the landless households of Malwa as well as the land owning households of all the regions, the distribution of household assets is quite unfair with the Gini-coefficient being 0.40, 0.50, 0.39 and 0.53, respectively. Considering all households taken together, the inequality of household assets is quite high in all three regions, with the same being comparatively lowest in Doaba (Gini-coefficient value 0.73), followed by Malwa (Gini-coefficient value 0.74) and the highest in Majha (Gini-coefficient value 0.77).

CONCLUSION

The per capita values of household durable assets and farm assets, bears a positive relationship with the farm size in all the regions under study for the farming community. However, there are considerable variations in the range of per capita values of assets.

Overall the land owning households in all three regions show quite an unequal distribution of assets compared to landless households of all three regions. The distribution of assets among the landless households in Doaba is fairly equal. This is followed by somewhat unfair distribution of assets among landless households of Majha. For the landless households of Malwa as well as the land owning



households of all regions, the distribution of household asset is quite unfair. Considering all households together the inequality of household assets is quite high in all three regions, with the same being lowest in Doaba, followed by Malwa and the highest in Majha.

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Table 1: Region-wise per capita value of household durable assets (in Rs.)

Categories/Regions /Assets	Dwelling house	Electric appliances	Two & four wheeler	Furniture	Bedding	Utensils	Gas	Sewing machine	Jewelry	Total	
Marginal farm households	Malwa	92887	2814	3598	1549	943	814	329	24	4354	107312
	Doaba	116537	6731	13048	2868	1799	1236	426	101	5001	147747
	Majha	91982	3503	3426	2074	1280	630	292	223	5295	108705
Small farm households	Malwa	146907	5694	5149	3282	1557	1229	384	188	20609	184999
	Doaba	141143	6949	26286	2916	1778	1180	291	142	15000	195685
	Majha	89567	7941	17682	3616	1704	963	321	461	16364	138619
Medium farm households	Malwa	257923	13060	29125	4751	2101	1527	371	233	37955	347046
	Doaba	246875	9372	32994	3423	1710	1313	288	241	34970	331186
	Majha	107202	5895	16621	2799	1042	628	189	131	16990	151497
Large farm households	Malwa	378894	21197	60347	7857	2340	1573	407	135	65924	538674
	Doaba	166667	7964	1717	3013	1033	659	121	107	23333	204614
	Majha	294000	12270	32637	3781	1735	1229	273	206	36449	382580
Agricultural labour households	Malwa	34575	1392	335	2696	505	297	0	54	54	39908
	Doaba	68944	1639	213	1870	689	458	0	175	252	74240
	Majha	26838	1153	263	2392	463	265	0	60	88	31522
Non-agricultural labour households	Malwa	24215	1038	222	2217	429	244	0	50	79	28494
	Doaba	64257	1603	197	1814	679	447	0	176	230	69403
	Majha	56666	1479	186	1650	621	413	0	169	174	61358
Artisan households	Malwa	32712	2173	1048	2958	906	692	0	86	1250	41825
	Doaba	67181	1314	129	1619	617	372	0	160	572	71964
	Majha	69535	1130	65	1669	417	326	0	130	0	73272
Other households	Malwa	179825	5935	4423	7017	2169	1700	0	388	16026	217483
	Doaba	86542	1801	1077	2146	816	495	0	233	706	93816
	Majha	100976	3117	2775	3898	1279	955	0	216	8200	121416
All sampled households	Malwa	109706	4646	7231	3405	1146	851	149	135	12123	139392
	Doaba	90100	2968	4954	2132	924	615	72	175	4190	106130
	Majha	90713	4011	7483	2776	1026	634	119	185	8608	115555

Source: Field Survey, 2015-16



Table 2: Region-wise per capita value of farm assets (in Rs.)

Categories/Regions /Assets		Land	Farm buildings	Mechanical Implements	Human Drawn Implements	Total
Marginal farm households	Malwa	627664	167	4663	95	632589
	Doaba	884230	3956	10027	146	898359
	Majha	420552	550	2777	84	423963
Small farm households	Malwa	1128081	2277	12784	151	1143293
	Doaba	830810	3643	18613	110	853176
	Majha	925914	417	38709	134	965174
Medium farm households	Malwa	2765453	8392	62940	212	2836997
	Doaba	2198667	5313	60762	152	2264894
	Majha	1108487	1100	27985	88	1137660
Large farm households	Malwa	8914613	11434	136099	312	9062458
	Doaba	3320404	6000	50961	116	3377481
	Majha	3884873	6000	85062	203	3976138
Agricultural labour households	Malwa	0	0	74	28	102
	Doaba	0	0	99	26	125
	Majha	0	0	61	21	82
Non-agricultural labour households	Malwa	0	0	49	16	65
	Doaba	0	0	47	20	67
	Majha	0	0	46	16	62
Artisan households	Malwa	0	0	16	45	61
	Doaba	0	0	21	36	57
	Majha	0	0	0	30	30
Other households	Malwa	0	0	93	32	125
	Doaba	0	0	73	26	99
	Majha	0	0	47	13	60
All sampled households	Malwa	853028	1653	14083	82	868846
	Doaba	328676	997	6694	48	336415
	Majha	605267	739	14620	63	620689

Source: Field Survey, 2015-16



Table 3: Region-wise per capita value of livestock assets (in Rs.)

Categories/Regions/Assets	Cows	Buffaloes	Young stock of cattle	Others	Total	
Marginal farm households	Malwa	3218	4215	21	307	7761
	Doaba	1289	11691	0	1690	14670
	Majha	3415	7365	188	212	11180
Small farm households	Malwa	3460	11858	219	763	16300
	Doaba	1976	11371	252	1253	14854
	Majha	3886	12660	450	292	17289
Medium farm households	Malwa	5638	12000	373	1212	19223
	Doaba	2813	16875	281	1569	21538
	Majha	3718	8488	363	55	12624
Large farm households	Malwa	2510	11255	0	1236	15001
	Doaba	4000	13333	0	500	17833
	Majha	3290	8840	158	341	12629
Agricultural labour households	Malwa	0	1660	64	0	1725
	Doaba	0	573	35	0	608
	Majha	0	1109	53	0	1161
Non-agricultural labour households	Malwa	0	1166	39	0	1205
	Doaba	0	1405	44	0	1448
	Majha	0	1152	50	0	1202
Artisan households	Malwa	0	760	54	0	813
	Doaba	0	486	23	0	509
	Majha	0	1239	78	0	1317
Other households	Malwa	0	1888	59	0	1948
	Doaba	0	1540	44	0	1584
	Majha	0	1143	28	0	1171
All sampled households	Malwa	1578	4644	102	318	6642
	Doaba	491	4085	77	314	4968
	Majha	1629	4782	160	92	6662

Source: Field Survey, 2015-16



Table 4: Region-wise distribution of assets

Cumulative percentage of households	Cumulative percentage of household assets								
	Land owning households			Landless households			All sampled households		
	Malwa	Doaba	Majha	Malwa	Doaba	Majha	Malwa	Doaba	Majha
10	2.21	3.40	1.52	2.20	7.31	4.12	0.20	0.97	0.18
20	5.08	8.74	3.54	5.35	19.33	9.72	0.50	2.00	0.47
30	8.85	12.99	6.23	9.27	27.55	16.67	0.96	3.16	0.89
40	12.75	20.22	9.70	14.41	39.98	24.13	1.61	4.64	1.41
50	17.62	25.63	14.43	20.80	48.42	33.20	2.75	6.23	2.10
60	22.41	31.23	21.22	28.94	56.87	45.78	4.51	7.99	3.38
70	30.47	40.10	29.18	39.65	69.66	58.56	10.56	10.38	6.89
80	42.99	47.96	39.71	54.73	78.26	71.75	21.02	14.01	15.64
90	58.16	67.23	57.70	73.61	91.23	85.31	38.29	36.04	33.29
100	100	100	100	100	100	100	100	100	100
Gini coefficient	0.50	0.39	0.53	0.40	0.02	0.2	0.74	0.73	0.77

Source: Field Survey, 2015-16