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Pattern of Agricultural Land Lease in Punjab

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Abstract

The present paper analyses the pattern of agricultural land lease in Punjab. Primary data pertaining to the year 2015-16 were collected using personal interview method from a sample of 80 farmers from four districts of the state through multi stage random sampling technique. The study revealed that around 60 per cent of the farmers leased in land for cultivation, while about 40 per cent leased out their land. The magnitude of farmers operating leased-in and leased-out land was the highest in central plain zone with an area of 73.68 and 40.48 hectares respectively, which constituted about 48 per cent of the total leased-in and 43.75 per cent of the total leased-out land. While, average leased-in land operated by the sampled farmers was 3.18 hectares which was 15 per cent higher than the average owned land, the average area leased-out was 2.81 hectares which was 31.80 per cent less than the average owned land. Legalization of land leasing will help in improving agricultural efficiency by enhancing the access of land for optimum utilization of labour and available resources.

Keywords: *Land, Rent, Leased-in, Leased-out, Punjab*

JEL codes: *Q10, Q15, Q12*

Introduction

Land is a basic factor of production in agriculture which largely determines the size of the business. It is held and coveted not only because it adds directly to production, but because it has value as a consumer good in its own right. Land is also valued for the fulfillment of certain non-economic needs such as social security, social status and political influence. Land, with its unique characteristics like non-reproducibility, specificity to location, immobility and instrument ability, is also limited in supply. Therefore, there is a growing demand for land which manifest itself in the form of its high price. The land market is a vital component of the free and democratic market economy. Land market transaction is also influenced by the permanent transfer through sale and temporary, through lease. Both these types of transactions namely, sale and lease, affect the patterns of ownership as well as utilization of agricultural lands. Tenancy is one of the oldest agrarian institutional devices evolved in order to make the distribution of operational holdings more equitable than the distribution of ownership holdings and contributions to a better distribution of income than would be possible without it (Srivastava, 1983).Thus the promotional role of tenancy as an institution

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has an important bearing upon the distribution of land ownership. Contrary, the distribution of land ownership not only determines the concentration of land holdings in the rural economy but also shapes the tenancy structure. The traditional view of tenancy market holds the view that the small farmers, in general, intend to leased-in land, while the large farmers are involved in lease-out operation. This temporary transfer of land via tenancy is evolved to facilitate adjustment and interlinked transaction in agriculture (Bardhan and Rudra, 1978). But some proponents of the thought leveled it as a semi-feudal institution which retards technological innovation in agriculture (Bhaduri, 1973; Bharadwaj 1974; Prasad, 1974).

Being inelastic in supply and immobile in nature, it assumes greater importance among the farming community with an increasing demand for it. Main factors which affect the demand for land are population, urbanization and productivity. It is, however, felt that owing to enforcement of various land laws, high cost of farm technology, exorbitant land prices, etc. The land market has somewhat frozen (Chadha *et al*., 1992). In fact the efficiency of land lease markets is a critical issue in many developing countries, where land sales markets are often and inhabited by problems of asymmetric information and limited development of credit markets.

In the Punjab state, the pattern of land holdings was observed to be changed drastically since the last few decades. Structural changes with regard to agricultural land holdings have adversely affected the productivity level and sustainability of farming community. Therefore, the present study entitled, "Pattern of agricultural land lease in Punjab" was undertaken to study the behavior of lease-in/lease-out agricultural land in Punjab.

Data Sources and Methodology

The study has been conducted in the state of Punjab during the year of 2015-16. Multi stage random sampling technique was followed to draw a representative sample. In the first stage, four primary sampling units (districts) were selected randomly from different agro-climatic zones in proportion to the total area of respective zone in the state. One district each from zone-I and zone-III and two districts from zone-II were randomly selected. From each selected district, one block was selected randomly. At third stage one village was selected randomly from each selected block. At final stage of sampling, from each selected village twenty farmers who were leasing-in/leasing-out their agricultural land were selected, thus making a sample of 80

Details of sample selection

Agro climatic zones	Districts	Block	Villages	Leased-in	Leased-out	Total
Zone-I	Hoshiarpur	Hosiarpur-I	Bure jattan	12	8	20
(Sub-mountain Zone)						
Zone-II	Sangrur	Dirba	Rotalan	14	6	20
(Central Plain Zone)	Amritsar	Jandiala guru	Bhama	12	8	20
Zone-III	Bathinda	Sangat mandi	Sekhu	10	10	20
(South- Western Zone)						
Total				48	32	80

respondents. Simple statistical techniques such as averages, percentages were applied in the analysis.

Results and Discussion

Socio-economic profile of sampled households

Socio-economic profile basically represents the social status of sampled respondents in the society. The various socio-economic parameters like age, educational qualification etc. of the respondent farmers were studied under this section and discussed under the following heads:

Age

Zone-wise classification of the sampled households according to the age of family head is given in Table 1. It was found that the average age of the family head was the highest in zone-I (53.55 years), followed by zone-II (49.08 years) and zone-III (39.10 years). The proportion of household heads of most productive age group i.e. up to 50 years was 45 per cent in zone-I and 50 per cent in zone-II. While this proportion in zone-III was 90 per cent.

Educational status of head of the family

The education level of head of the sampled households also varied over different agro-climatic zones of the state. In this regard, all the sampled households corresponding to different agro-climatic zone were sorted out according to their education level and the results are presented in Table 2. The results indicate that around 70 per cent of the sampled household heads in the entire three zones attained education up to high school. In zone-I, 20 per cent of the household were graduate, while in zone-II and zone-III, their proportion was 12.50 per cent and 5 per cent, respectively. In the whole, it can be concluded that the farmers of zone-I participating in land lease market were more educated than that of farmers of zone-II and zone-III.

Leased-in and leased-out pattern of agricultural land

It is a well known fact that operational efficiency of the farm varies with farm size and an adequate farm size yield better returns. In this respect, farmers make all efforts to expand their operational farm holdings which in turn increase the farm productivity by efficient utilization of farm resources. Farmers can increase the operational land holdings either by purchasing agricultural land or by leasing-in land. Since, the purchasing of agricultural land requires heavy investment; therefore farmers generally prefer to lease-in land to increase their farm size. Therefore, the extent of leased-in land is an important factor in determining the operational farm size and level of production, respectively. The pattern of land leased-in and leased-out and the status of land rent, land value etc. have been discussed in this section.

Table 1. Zone-wise distribution of sampled farms on the basis of age of the family head in Punjab, 2015-16

Age (years)	Zone-I (n_1=20)		Zone-II (n_2=40)		Zone-III (n_3=20)		Overall (N=80)	
	No.	%age	No.	%age	No.	%age	No.	%age
Up to 35	1	5.00	5	12.50	7	35.00	13	16.25
35-50	8	40.00	15	37.50	11	55.00	34	42.50
Above 50	11	55.00	20	50.00	2	10.00	33	41.25

Table 2. Zone-wise educational status of head of the family on sampled farms in Punjab, 2015-16

Particulars	Zone-I	%age	Zone-II	%age	Zone-	%age	Overall	%age
Upto middle	6	30.00	17	42.50	10	50.00	33	41.25
High school	8	40.00	12	30.00	4	20.00	24	30.00
Secondary school	1	5.00	6	15.00	5	25.00	12	15.00
Graduation	4	20.00	5	12.50	1	5.00	10	12.50
Post graduation	1	5.00	0	0.00	0	0.00	1	1.25
Total	20	100.00	40	100.00	20	100.00	80	100.00

Rental value of leased-in land

It is observed that soil fertility and irrigation facility were the major factors that determined the rental value of leased-in land. The results presented in Table 3 indicate that during 2015-16 crop year, the average rental value of leased-in land was the highest in zone-II i.e. Rs111891 per hectare, followed by zone-III (Rs76323/ha) and zone-I (Rs64849/ha), respectively. It is worth mentioning here that in the central plain zone (zone-II) soil fertility, irrigation facility and water quality is relatively better than that of other two agro-climatic zones in the Punjab state. The range of rental value of land varied from Rs59280-86450 per hectare in zone-I, while the same was Rs93860-128440 in zone-II and Rs69160-98800 in zone-III, respectively. The average rental value for the state as a whole came out to be Rs91683 per hectare.

Pattern of land lease

The perusal of table 4 indicates proportion of sampled farmers engaged in land lease-in and lease-out activities. Out of total selected farmers of zone-II, 65 per cent leased-in land, while rest 35 per cent rented-out their land. Similarly, in case of zone-I and zone-III, the proportion of sampled farmers leasing-in land came out to be 60.00 and 50.00 per cent, whereas the proportion of sampled farmers who leased-out their land worked out as 40.00 and 50.00 per cent, respectively.

Magnitude and extent of land lease

The magnitude and extent of agricultural land lease is measured in terms of number of farmers leasing-in land and the total leased-in area cultivated by them. The pattern of land lease across different agro-climatic zones is given in Table 5. It has been observed that out of total sampled farmers leasing-in land the magnitude of farmers operating leased-in land was the highest in central plane zone (54.17 %) followed by zone-I (25.00 %) and zone-III (20.83 %). Similarly, the total leased-in area was also the highest in zone-II (73.68 ha)

Table 3. Range of land rent on sampled farms in Punjab, 2015-16

Agro climatic zone	Range of land rent (Rs) per hectare	Average land rent (Rs) per hectare
Zone-I (Sub-Mountain Zone)	59280-86450	64849
Zone-II (Central Plain Zone)	93860-128440	111891
Zone-III (South-Western Zone)	69160-98800	76323
Overall		91683

Table 4. Zone-wise land lease-in and lease-out pattern of sampled farmers in Punjab, 2015-16

Agro-climatic zones	Lease-in		Lease-out		Total
	Number of farmers	%age	Number of farmers	%age	
Zone-I (Sub-Mountain	12	60.00	8	40.00	20
Zone-II (Central Plain Zone)	26	65.00	14	35.00	40
Zone-III (South-Western	10	50.00	10	50.00	20
Total	48	60.00	32	40.00	80

Table 5. Zone-wise magnitude and extent of land lease among sampled farms in Punjab, 2015-16

Agro-climatic Zones	Number	Total leased -in area (ha)	Average leased -in area (ha)
Zone-I (Sub-Mountain Zone)	12 (25.00)	41.09 (26.92)	3.42
Zone-II (Central Plain Zone)	26 (54.17)	73.68 (48.28)	2.83
Zone-III (South-Western Zone)	10 (20.83)	37.85 (24.80)	3.78
Total	48 (100.00)	152.63 (100.00)	3.18

Figures in parentheses indicate percentages to total

which constituted about 48 per cent to the total leased-in land. The share of leased-in land estimated to the tune of 26.92 and 24.80 per cent in zone-I and zone-III, respectively. However, the per farm average leased-in area operated was the highest i.e. 3.78 hectares in zone-III, followed by 3.42 hectares in zone-I and least in zone-II (2.83 ha), respectively.

Pattern of leased-in land in relation to owned land

Taking into account the owned land, the pattern of leased-in land operated by the sampled farmers has been examined in this section. The results presented in Table 6 shows that the average leased-in land operated by the sampled farmers was 3.18 hectares which was higher than the average owned land (2.77 ha). Average leased-in area among sampled farmers was the highest in zone-III (3.78 ha), followed by zone-I (3.42 ha) and zone-II (2.83 ha). However, the average owned land operated by sampled farmers came out to be 2.09, 2.89 and 3.26 hectares in zone-I, zone-II and zone-III, respectively. Average leased-in area as a percentage of owned land worked out to be 163.64, 97.90 and 116.15 per cent, respectively. The results brought out that the average area leased-in was higher than that of owned area in zone-I and zone-III, respectively, while in zone-II it was slightly lesser than the owned area.

Magnitude and extent of land lease-out

The magnitude and extent of agricultural land leased-out is evaluated on the basis of number of farmers leasing-out land and the total area being leased-out by them. Zone-wise magnitude and extent of land lease-out is presented in Table 7. It has been observed that

Table 6. Zone-wise leased-in land in relation to owned land among sampled farmers in Punjab, 2015-16

Agro Climatic Zones	Number of farmers	Average owned land (ha)	Average leased -in area (ha)	Area leased-in as a percentage of owned
Zone-I (Sub-Mountain Zone)	12	2.09	3.42	163.64
Zone-II (Central Plain Zone)	26	2.89	2.83	97.90
Zone-III (South-Western	10	3.26	3.78	116.15
Total	48	2.77	3.18	114.91

the proportion of sampled farmers leasing-out their land was the highest in central plane zone (43.75 per cent) followed by zone-III (31.25 per cent) and zone-I (25.00 per cent). Similarly, the total area leased-out was the highest in zone-II constituting about 45 per cent to the total area leased-out. The proportion of leased-out land estimated to the tune of 23.87 and 31.07 per cent in zone-I and zone-III, respectively. The average area leased-out came out to be slightly higher in zone-II (2.89 ha), followed by 2.79 ha in zone-III and least in zone-I (2.68 ha), respectively. So, the average leased-out area was observed to be more or less same in all the three agro-climatic zones of Punjab.

Pattern of leased-out land in relation to owned land

Taking into account the owned land, pattern of area leased-out by the sampled farmers has been examined in this section. The information pertaining to the average size of land owned by the lessors in different zones of the state has been presented in table 8. It can be seen from the table that average size of land owned by sampled farmers (lessors) was 3.44, 3.77 and 5.14 hectares in zone-I, zone-II and zone-III, respectively. Average area leased-out was more or less same in all the three zones of the state. The proportion of leased-out land was 77.90, 76.66 and 54.28 per cent of the owned land in zone-I, zone-II and zone-III, respectively. On overall basis average area leased-out by sampled farmers was 2.81 hectares, which was 68.20 per cent of the average owned land by the sampled farmers of the state.

Table 7. Zone-wise magnitude and extent of land leased-out by sampled farmers in Punjab, 2015-16

Agro Climatic Zones	Number	Total leased-out area (hectare)	Average leased-out area (hectare)
Zone-I (Sub-Mountain Zone)	8 (25.00)	21.46 (23.87)	2.68
Zone-II (Central Plain Zone)	14 (43.75)	40.48 (45.06)	2.89
Zone-III (South-Western Zone)	10 (31.25)	27.93 (31.07)	2.79
Total	32 (100.00)	89.88 (100.00)	2.81

Figures in parentheses indicate percentages to total

Table 8. Zone-wise leased-out land in relation to owned land by sampled farmers in Punjab, 2015-16

Agro Climatic Zones	Number of farmers	Average owned land (hectare)	Average leased-out area (hectare)	Area leased-out as a percentage of owned land
Zone-I (Sub-Mountain Zone)	8	3.44	2.68	77.90
Zone-II (Central Plain Zone)	14	3.77	2.89	76.66
Zone-III (South-Western	10	5.14	2.79	54.28
Total	32	4.12	2.81	68.20

Conclusion and Policy Implications

The results show that on an overall basis, a large number of household heads (42.50 %) belonged to the most productive age group i.e. 35-50 years in the study area. During 2015-16 crop year, the average rental values of leased-in land was the highest in zone-II i.e. `111891 per hectare, followed by zone-III (`76323/ha) and zone-I (`64849/ha), respectively. The average rental values for the state as a whole came out to be `91683 per hectare. On an overall basis, 60 per cent of the total sampled farmers leased-in land for cultivation, while rest about 40 per cent farmers leased-out their land due to one or another reasons in the study area. The pattern of land lease across different agro-climatic zones observed that magnitude of farmers operating leased-in land was the highest in central plane zone. The average leased-in land operated by the sampled farmers was 3.18 hectares which was higher than the average owned land (2.77 ha). Average area leased-out by sampled farmers was 2.81 hectares, which was less than that of average size of owned land (4.12 ha). In nutshell, the farmers tried to consolidate land on rental basis on account of making their agriculture more economical and viable due to two most important reasons; firstly due to lack of opportunities in non-farm sector and secondly to enhance the utilization of excessive farm resources. Legalization of land leasing will further help in improving agricultural efficiency by enhancing the access of land for optimum utilization of labour and available resources.

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