Emerging agrarian trends in post economic reform period: villagelevel evidences from Rajasthan

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Abstract

Background/ Objective: This study is based on the primary survey conducted for doctoral thesis at CESP, JNU New Delhi. The study aims in studying, inter alia, land relations, production relations, and changes in these variables taken place in post economic reform period.

Methods/ Statistical Analysis: The production relations in post economic reform period were studied by means of detailed primary study. A census survey was undertaken in a village of in Rajasthan in 2007. The census survey of the same village was repeated in 2013 to capture the changes.

Findings: Data obtained from study village indicate growing agrarian distress due to increasing land and income inequality, increasing landlessness and disparity in access to government credit as well as government land for leasing. Integration of Indian agriculture with world market has posed many new agrarian challenges. Sudden increase in price of guar in the year 2012 in world market, which persisted even in 2013, has not only benefited guar cultivators but has also brought huge instability in the land rental market. On the one hand, it resulted in the area under cultivation of guar and on the other in the absence of legal tenancy contracts, it has resulted in dishonoring of oral contracts, changing forms of tenancy contracts, fall in tenancy practices and increasing economic insecurity of tenant farmers.

Improvements/ Applications: Increased instability in agrarian market has resulted in more or less similar kind of situations in other part of the country, which requires government intervention to control instability.

Keywords: Agriculture, Land relation, Tenancy, Globalization, Guar.

1. Introduction

Rajasthan has an agrarian economy with approximately 2/3 of the state population dependent on agriculture [1]. Agriculture and allied activities like animal husbandry are the most important source of livelihood, employment and food security for the people of Rajasthan. Large parts of Rajasthan have an arid climate with low rainfall and limited irrigation potential. Despite these limitations, considerable change in the cropping pattern has taken place in some parts of Rajasthan. Most important of these relate to growth of cultivation of oilseeds, wheat and cotton, and recent one is the *kharif* crop guar [2-3].

Land is an important determinant of position of a household in the system of agrarian economy. In an economy characterized by widespread unemployment, ownership of productive land can provide reliable source of livelihood. Typically, unequal distribution of land forms the structural basis for an unequal distribution of income. Land can not only be used for self-cultivation, but can also be rented out. It is easy in an agrarian economy to find rental market for the land and the livelihood of a lot of people is dependent on income from renting in/out land both. Different round of NSS reports indicate that a sizable portion of land is leased-in in Rajasthan. 59th and 70th round of NSS report show that share of land under tenancy in Rajasthan was 3.40 % in 2002-03, which increased to around 6.83% in 2012-13. The share of leasing in households also reveals similar tendency. The land leased-in by pure tenants also increased from around 16.96 in 2002-03 [4] to 19.03 in 2012-13 [5]. The core study is based on primary data collected from a village- 196 Headin Suratgarh Tehsil of Sriganganagar District of North Rajasthan in India. The primary data were collected from this village at two different periods of time, in June, 2007 and June, 2013 to enable comparison. The village is on the banks of Indira Gandhi Canal. All households in the village belonged to Hindu or Sikh religion. The proportion of households belonging to SC and OBC community were approximately 48.5% and 33.8% respectively.

Second section of the chapter is about land ownership and tenancy pattern in 196 Head in the year 2007 when first survey was conducted. Third section deals with the changes in cropping pattern and prices of major crops in 2013 when second survey was conducted in the same village. Fourth section focuses on change in landownership and tenancy pattern in 2013. Last section is about conclusions and discussions.

2. Land ownership and tenancy pattern in 2007

196-Head of the households were characterized by a high degree of inequality in ownership of land. Approximately 33.9 % of the households didn't have any land, which mostly belonged to SC/ST community. The average landholding with non-SC/ST and SC/ST was 10.3 and 3.6 acres, respectively as shown in Table 1.

Table 1. Farm dynamics in 196 Head

Variables (year-2007)	SC/ST	Non	Total
Average landholding of all households in acres (including landless)	3.6	10.3	7.1
Average landholding of landowning households in acres(excluding landless)	5.94	13.35	10.27
Percent of area irrigated	60.8	83.4	77.8
Absolute landless households as percent of total households	39.4	22.9	30.9

Source: Primary survey, 2007

Tenancy was very much widespread in 196 Head. In 2007, total land lease in as per cent of total land owned was 28.7%, which is far higher than state average in all NSS reports. However, land leased as percentage of total land owning by SC/ST was very less compared to non-SC/ST, it was just 3.8% while the same for non SC/ST was 37% as shown in Table 2.

Table 2. Lease in as per cent of total landowning, by social group, 196 Head, 2007

Social group	Total area under tenancy in	Total landowning in	Area under Tenancy as per cent of Tota landowning		
30ciai group	acres	acres			
SC/ST	4.6	119.6	3.8		
Non SC/ST	133.2	359.8	37.0		
Total	137.8	479.4	28.7		

Source: Primary survey, 2007

The land was being leased in only on the basis on annual contracts. The first part of the Table 3shows the absolute area under different forms of tenancy by size of economic holding, while the second part shows their respective per cent shares. It is clear from the Table 3 that area leased in or leased out under share rent was higher than that of under fixed rent. There wasn't any case of mortgage in/out was reported in 2007. In consonance with state and country wide trends, a sizable portion of land is being lease-in by pure tenants in 196 Head. Leasing in was mainly confined to landless, marginal and large landowners. The landless and marginal farmers were leasing in mainly on share rent basis, while large farmers were leasing in on fixed rent basis only. Approximately 41% of total leased in land and 55.5% of total land leased in on share rent basis was being leased in only by landless households. Large landowners were leasing in only on fixed rent basis. Approximately 86.2% of total land lease in on fixed rent was by large landowners only while their share in total lease in land was only 22.9%. A huge difference between land lease in and lease out can be noticed in the village. As far as leasing out was concerned, it was mainly confined to only large, medium and semi medium landowners who had surplus amount of land to lease out. Approximately 97.4% of the land was leased out by large, medium and semimedium landowners. Out of 97.4%, 55.1% of the land was leased out by large landowners while 22.7% and 19.6% were being leased out by medium and semi-medium landowners respectively. Remaining 2.6% of the land was being leased out by the small landowners and that was only to own relatives. If we go into more details of leasing out under different forms of tenancy contracts, we find that leasing out on shared rent was mainly a large landowners' phenomenon. Approximately 82.8% of the total land leased out on share rent was by the large landowners while remaining 17.2% of the land leased out on shared rent was by the medium landowners.

However, lease out on fixed rent was mainly semi-medium landowners' phenomenon. Mostly semi-medium landowners leased out their land on the fixed rent basis followed by medium and large landowners. Approximately 51.3% of the total land leased out on fixed rent basis was by the semi-medium landowners followed by medium and large landowners with 25.6% and 16.2% share respectively.

Table 3. Distribution of area (in acres/ per cent) under different form of tenancy by size class of ownership holding, 196 Head, 2007

	Р	hase-1 Lease	d in (in acres)			Phase-1 Leased	d out (in acres)	
Size class	Fixed rent	Share rent	Mortgage in	Total	Fixed rent	Share rent	Mortgage out	Total
Landless	0.3	56.3	0	56.5	0.0	0.0	0	0.0
Marginal	4.5 (0.3)*	45.0	0	49.5	0.0	0.0	0	0.0
Small	0.0	0.0	0	0.0	3.1	0.0	0	3.1
Semi medium	0.0	0.0	0	0.0	23.8	0.0	0	23.8
Medium	0.3	0.0	0	0.3	11.9	15.6	0	27.5
Large	31.5(1.3)*	0.0	0	31.5	7.5	59.4	0	66.9
Total	36.5	101.3	0	137.8	46.3	75.0	0	121.3
	In ter	ms of per cen	t of total land le	ased in/o	ut in a particula	r tenancy cont	ract	
Landless	0.7	55.5	0.0	41.0	0.0	0.0	0.0	0.0
Marginal	12.3(0.8)*	44.4	0.0	35.9	0.0	0.0	0.0	0.0
Small	0.0	0.0	0.0	0.0	6.7	0.0	0.0	2.6
Semi medium	0.0	0.0	0.0	0.0	51.3	0.0	0.0	19.6
Medium	0.7	0.0	0.0	0.2	25.6	20.8	0.0	22.7
Large	86.3(3.6)*	0.0	0.0	22.9	16.2	79.2	0.0	55.1
Total	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0

Note: Values in parenthesis are land lease in from government on fixed rent basis

Source: Primary survey, 2007

If we compare lessor and lessee by social groups, we find that SC/ST were leasing in less land than non SC/ST despite being half of the population of the whole village. The same trend can be noticed in all forms of tenancies prevalent in the village viz. share rent or fixed rent. SC/ST were leasing in just 3.4% of the total leased-in land in the village. They were leasing in just 0.7% of total land leased-in on fixed rent and only 4.3% of total land leased-in on shared rent. Even SC/ST were leasing out only 2.6% of total leased out land by all households of this village as shown in Table 4.

Table 4. Percent of land leasing in/out (in acres/per cent) by different social groups, 2007

Social group		Lease/ mortgage in			Lease/ mortgage out			
of tenant	Fixed rent	Shared rent	Mortgage in	Total	Fixed rent	Shared rent	Mortgage out	Total
SC/ST	0.3(0.3)*	4.4	0	4.6	3.1	0	0	3.1
Non-SC/ST	36.3(4.4)*	96.9	0	133.2	43.1	75	0	118.1
Total	36.6(4.7)*	101.3	0	137.8	46.2	75	0	121.2
			ln _l	per cent				
SC/ST	0.7	4.3	0	3.4	6.7	0	0	2.6
Non-SC/ST	99.3	95.7	0	96.6	93.3	100	0	97.4
Total	100	100	0	100	100.0	100	0	100.0

* Values in parenthesis are land lease in from government on fixed rent basis Source: Primary survey, 2007

3. Changes in prices and cropping pattern in 2013

The cropping pattern of 196 Head took turn in 2013, when the share of mustard and fodder fell and the share of wheat increased substantially. The area under mustard and fodder fell by approximately 15.7 and 2.2% points. Area sown under wheat increased to 59.9% of total area under *rabi* cultivation, which was approximately 15.5% point increase. The area under gram also increased to 4.7% of total area under *rabi* crop. *Kharif* season had also witnessed a lot of changes in the cropping pattern.

The proportion of area sown under cotton (kapas), American cotton and fodder fell while the proportion of area under guar and paddy increased. This period can be marked as increasing importance of commercial crops such as guar. Area under cotton, American cotton and fodder fell to the level of 0.9%, 35.0% and 6.1% respectively. However, the area under guard and paddy increased to the level of 50.6% and 4.2% respectively as shown in Table 5.

Table 5. Cropping pattern in 196 Head, Kharif season, 2007 and 2013

Name of crop	Area under o	crops in 2007	Area under crops in 2013		
Name of crop	Area in acres	Per cent share	Area in acres	Per cent share	
Cotton (kapas)	49.6	16.5	3.4	0.9	
Fodder	23.5	7.8	23.5	6.1	
Guar	111.1	37.0	193.9	50.6	
Jowar	1.3	0.4	0.0	0.0	
American cotton	114.1	37.9	134.1	35.0	
Other	1.2	0.4	12.5	3.3	
Paddy	0.0	0.0	16.3	4.2	
Total	300.6	100.0	383.5	100.0	

Source: Primary survey, 2007 and 2013

In 2013, the prices of *kharif* crops like cotton (kapas), guar and American cotton, increased to the level of rupees 3500, 8250 and 3800. This was a rapid increase from its level in 2007. The per cent increase in the prices of these three crop (cotton (kapas), guar and American cotton), were 106, 489 and 123.5 respectively. High increase in the prices of these crops was very motivational for the cultivators especially increase in the price of guar. High price of guar brought a lot of changes, as cultivators started storing a large amount of guar in expectation of further price rise. This may also have impact on the further increase in the price of this crop as shown in Table 6.

Table 6. Median prices (in rupees) of main crops, 196 Head, 2007 and 2013

Crops	Survey-2007	Survey-2013	Per cent change
Barley	650	1050	61.5
Cotton (kapas)	1700	3500	105.9
Gram	2000	5000	150.0
Guar	1400	8250	489.3
Mustard	1700	2970	74.7
American cotton	1700	3800	123.5
Paddy		2300	
Wheat	850	1500	76.5

Source: Primary survey, 2007 and 2013

4. Changes in landownership and tenancy pattern in 2013

A lot of changes were noticed in land related variables between 2007 and 2013. The percentage of landless households increased from 30.9 in 2007 to 46.7 in 2013. The landlessness increased among SC/ST households by 115.4%. In this way, the incidence of landlessness and the tendency of becoming landless both were higher among SC/ST in the village. The sudden exorbitant increase in the price of guar in international market in 2012, not only resulted in increase in area under this crop from 2013, but it had deep impact on the pattern and preference forforms of tenancy. The demand for lease in increased due to increased profitability in the cultivation, which is reflected in almost doubling of area under tenancy compared to 2007. A study of tenancy practices by social groups indicate that unlike 2007 where the proportion of land lease in by SC/ST was just 3% of total land owned by them, rose to 163.2% in 2013. This was radical change in the tenancy practices. This also indicates that tenancy was providing more livelihoods to them than their own land.

Table 7. Changes in Farm dynamics and land fragmentation in 196 Head

Variables (year-2013)	SC/ST	Non SC/ST	Total
Average landholding of all households in acres (including landless)	1.6	11.7	6
Percent change between 2007 and 2013	-56.5	14.1	-14.3
Average landholding of landowning households in acres(excluding landless)	4.8	14.85	11.25
Percent change between 2007 and 2013	-19.19	11.22	9.52
Absolute landless households as percent of total households	66.7	21.2	46.7
Percent change between 2007 and 2013	115.4	-12.5	66.7

Source: Primary survey 2007 & 2013

However, tenancy was not less important for non SC/ST. Though, the area lease in as per cent of total owned land was less for non SC/ST than SC/ST, but absolute area of land under tenancy was higher for them in comparison to SC/ST as shown in Table 7.

Table 8 Lease in as per cent of total landowning by social group

Social Group	Total area under tenancy in acres	Total landowning in acres	Area under tenancy as per cent of total landowning		
SC/ST	105.9	64.9	163.2%		
Non SC/ST	151.8	379.5	40.0%		
Total	257.7	444.4	58.0%		

Source: Primary Survey 2013

If we look at the tenancy pattern by size class of landowning, we encounter with very interesting facts. Though the area under all types of tenancy contracts increased but the relative importance of share rent contracts also increased by 2013. Unlike 2007 when leasing on fixed rent was mainly a landless, marginal and large landowners' phenomena, in 2013, all size classes of landowners were leasing in at-least some part of the land. However, highest proportion of land was still being leased in by landless. Unlike 2007, when large landowners were mainly leasing-in on fixed rent, in 2013, highest share of land leased-in on fixed rent was by semi medium landowners. However, landless were dominating in share rent contract where, they were leasing in approximately ½ of the area under share rent.

Table 9. Distribution of area (in acres/ per cent) under different form of tenancy by size class of ownership holding, 196 Head, 2013

2013									
		Phase-1 Leased in				Phase-1 Leased out			
Size Class	Fixed Rent	Share Rent	Mortgage in	Total	Fixed Rent	Share Rent	Mortgage Out	Total	
Landless	17.1(12.8)*	86.3	0	103.4	0.0	0.0	0	0.0	
Marginal	0.3(0.3)*	17.5	0	17.8	1.3	0.0	0	1.3	
Small	19.7(3.4)*	7.5	0	27.2	6.9	5.0	2.5	14.4	
Semi	26.4(10.8)*	32.2	0	58.6	4.4	0.0	0	4.4	
Medium	11.8(7.8)*	6.3	0	18.1	30.0	0.0	0	30.0	
Large	7.8(7.8)*	25.0	0	32.8	0.0	64.1	0	64.1	
Total	83.0(42.9)*	174.7	0	257.7	42.5	69.1	2.5	114.1	
		In per cen	t of total area ur	nder a parti	cular tenancy	contract			
Landless	20.6(15.4)*	49.4	0.0	40.1	0.0	0.0	0.0	0.0	
Marginal	0.3(0.4)*	10.0	0.0	6.9	2.9	0.0	0.0	1.1	
Small	23.7(4.1)*	4.3	0.0	10.6	16.2	6.0	100.0	12.6	
Semi	31.8(13.0)*	18.4	0.0	22.7	10.3	0.0	0.0	3.8	
Medium	14.2(9.4)*	3.6	0.0	7.0	70.6	0.0	0.0	26.3	
Large	9.3(9.4)*	14.3	0.0	12.7	0.0	77.2	0.0	56.1	
Total	100(51.7)*	100.0	0.0	100.0	100.0	83.2	100.0	100.0	

* values in parenthesis are land lease in from government on fixed rent basis

Source: Primary survey, 2007

In 2007, leasing-in land on fixed rent basis was primarily limited to large landowners and to a very small extent to marginal and landless in 2007. But in 2013 its base had expanded to small and medium landowners also. In a similar way, leasing-in land on shared rent, which was limited to just landless and marginal landowners had expanded to all size classes of landowners. In this way all size classes of landowners were leasing-in at least some fraction of land on fixed rent basis as well as on shared rent basis as shown in Table 8. Even the size class base of leasing out also witnessed expansion. In 2007, land was leased out mainly by large, medium, semimedium and small landowners. But in 2013, marginal landowners also started leasing out land. However, area leased out increased for large, medium and small landowners but decreased for semi-medium landowners. However, leasing out land on fixed rent was medium landowners' phenomena and shared out was a large landowners' phenomena. Deviating from the trends in 2007, first case of mortgaging out was reported in the village from a small landowner. A look at internal composition of land under tenancy as indicated in Table 9-10, shows very interesting facts. Total area under tenancy has increased in 2013 but internal composition of tenancy pattern also undergone a lot of changes. Following trends emerged. Non SC/ST were leasing in approximately 58.9% of the total leased-in land while SC/ST were leasing 41.1% of the total leased-in land. Though non-SC/ST were leasing in higher share of total leased-in land in both the years viz. 2007 and 2013, but their share in total land leased-in has fallen substantially from 96.6% in 2007 to 58.9% in 2013.

The decrease in the leased-in land by non-SC/ST is gain for SC/ST, as their share raised from 3.4% in 2007 to 41.1% in 2013. This is a phenomenal change in the composition of tenancy. The non-SC/ST was dominating in lease-in land on fixed rent basis while SC/ST was dominating in lease-in land on share rent. The share of total land lease-in by non-SC/ST on fixed rent in 2013 was 79.7% while the share of SC/ST in total land leased-in on share rent was 51% in 2013. The per cent share of non-SC/ST fell in leased-in on fixed rent and shared rent both, but it fell more sharply for leased-in on shared rent. Their per cent shares in leased-in land on fixed rent and shared rent were 99.3% and 95.7% respectively in 2007, which fell to 79.7% and 49% respectively in 2013. As far as trends related to leasing out are concerned, approximately 95% of the total land leased out was being by non-SC/ST in 2013, which was less than its level of 97.4% in 2007. Non-SC/ST was dominating in both the major forms of leasing out land viz. fixed rent and shared rent. Mortgaging out land was completely absent in 2007 in the village. However one case related to it was reported in 2013 belonging to SC/ST community. Approximately 2.5 acres of land was mortgaged out by SC/ST in 2013 [6-8].

Table 10. Land leased in/out (in acres/per cent) by different social groups, 196 Head, 2013

Social group	Lease/ mortgage in				Lease/ mortgage out			
of tenant	Fixed rent	Shared rent	Mortgage	Total	Fixed rent	Share rent	Mortgage	Total
SC/ST	16.9(12.5)*	89.1	0	105.9	4.4	0	2.5	6.9
Non-SC/ST	66.2(30.2)*	85.6	0	151.8	38.1	69.1	0	130.3
Total	83.0(42.7)*	174.7	0	257.7	42.5	69.1	2.5	137.2
			In pe	er cent				
SC/ST	20.3(15.1)*	51.0	0.0	41.1	10.3	0.0	100.0	5.0
Non-SC/ST	79.7(36.4)*	49.0	0.0	58.9	89.7	100	0	95
Total	100.0(51.4)*	100	0.0	100.0	100	100	100	100

*values in parenthesis are land lease in from government on fixed rent basis Source: Primary Survey 2013

5. Discussions and Conclusions

With the advent of policies of LGP in 1991, it was being expected that these reforms will benefit rural areas in general and agriculture in particular in various ways. First, it was being expected that opening up of international market for agriculture would benefit Indian farmers due to comparatively less cost of cultivation in India. The real cost of these expected benefits from international market was high instability in the prices of certain crops and consequently high instability in the land rental market. One can notice growing farmers' suicides only in the post reform period. One of the biggest reasons for increasing farm distress is increasing instability in the prices and output of agriculture, especially in the absence of social security mechanism.

The results of this study shows that most vulnerable among farming community have been the tenant cultivators since a sudden increase in the price of guar in 2012 have put upward pressure on the fixed rent and change in the terms of share rent contracts (owner-tenant share in input and output was changed from 50:50 to 70:30 or 80:20). This resulted in eviction of tenant cultivators who wanted their existing contracts to be honored. This may further strain the owner-tenant relations. Second, effect of changing dynamics of land demand had one positive effect too in the form of awakening of landless who didn't have any access to government land for leasing in 2007, they also started asserting for their right on government land. Landless were able to have access to 29.8% of government land. Similarly, despite being almost half of the village population, SC had access to only 6% of government land in 2007, which also rose to29.3 % by 2013. Undoubtedly the major share in government land was still of medium and large landowners compared to their population, but it was a good beginning.

Third, the evidence from the study village indicate that except some short term unexpected gains, as happened due to sudden rise in the price of guar in international market in 2012, there hasn't been any sign of long run permanent benefits from opening up of international market for agriculture. The cost of these benefits has been very high in terms of fluctuations in the prices resulting in high instability in the income. The results of this study shows that most vulnerable among farming community have been the tenant cultivators since a sudden increase in the price of guar in 2012 have put upward pressure on the fixed rent and change in the terms of share rent contracts (owner-tenant share in input and output was changed from 50:50 to 70:30 or 80:20). This resulted in eviction of tenant cultivators who wanted their existing contracts to be honored. Indeed, the agriculture sector and farmers are both in crisis precisely because increasing integration with global markets has left domestic agriculture to the vagaries of global demand and supply movements. However, in the absence of any comprehensive state policy to address price fluctuations of all major crops and without initiation of land reforms, this will only aggravate agrarian distress.

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