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Changing Agrarian Relationships in Rural India

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The agrarian relations are largely determined by land tenure (ownership, tenancy and labour relations) and agrarian structure (covering all the structural conditions for production in agriculture and for livelihood and social situation of rural population). Both these aspects are greatly inter-related. The agrarian relations existing at a point of time reflect the influence of historical, political, social and economic factors. Therefore, the discussion on agrarian relations in this paper takes a broader view comprising important aspects of both agrarian structure and land tenure in rural areas.

The paper begins with a discussion on changing size distribution of land holdings, followed by a discussion on tenancy, particularly relating to its magnitude, characteristics and efficiency. In view of the sharp increase in number and proportion of marginal holdings, the problems faced by them and solutions to ameliorate their problems have been discussed briefly along with agrarian distress and indebtedness of farmers. Apart from using macro-level data, micro level information has also been used to update the changes occurring in agrarian relationship in recent years.

There are two main sources of data on land ownership and operation at the macro-level. These are: (1) The National Sample Survey (NSS), and (2) The Agricultural Census conducted by the Ministry of Agriculture, Government of India. The NSS conducted its first Survey on land holdings in its 8th Round (July 1954 to April 1955) followed by the 16th Round (July 1960 to August 1961), the 17th Round (September 1961 to July 1962), the 26th Round (July 1971 to September 1972), the 37th Round (January to December 1982) and the 48th Round (January-December 1992). A very limited amount of data on the number of operational holdings are available from the 59th Round (January-December 2003) of NSS. The Agricultural Census was first carried out in 1970-71 and followed up subsequently in 1976-77, 1980-81, 1985-86, 1990-91, 19995-96 and 2000-01. The data from these two sources are not strictly comparable since their coverage as well as the definitions and methodology adopted by the agencies differ. Further, the data on tenancy are an underestimate, to a much greater extent, in the case of Agricultural Census (as they are taken from the revenue records and the major part of tenancy is unrecorded) than

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those of the NSS. For example, at the all-India level, the operational holdings leasing in land were only 3.7 per cent and the operated area leased-in was only 1.4 per cent according to Agricultural Census 1980-81 as compared to the respective estimates of 15.85 per cent and 7.18 per cent according to the NSS 37th round (1981-82) (Government of India; July 1988, p. 49). The data available from the NSS are estimates from the sample surveys of households, while the Agricultural Census data on operational holdings are compiled from the land records where such data are available and from sample surveys in a few other states. Further, the NSS data pertain to holdings of households only, while the Agricultural Census covers non-household holdings also, such as trust, temples, corporations, cooperatives, state agricultural farms, etc. and are based on revenue records. There are also differences in some concepts and definitions and also in the method of tabulation. Therefore, it is observed that the number of operational holdings and the operated area reported by the Agricultural Censuses are substantially higher than those estimated by the NSS Rounds. In view of these considerations, we base our analysis on the pattern of land ownership and operation, and tenancy on the NSS data for rural areas only.

I

PATTERN OF LAND OWNERSHIP AND OPERATION

In the case of both ownership and operational holdings, the data provided by the NSSO for different Rounds from 17th round onwards are on the whole comparable and hence have been used in this paper.

The distribution of ownership holdings by size class according to data collected by the NSSO in 1961-62, 1971-72, 1982 and 1992 are presented in Table 1. It is seen from the table that there has been a sharp increasing trend in the total number of ownership holdings, in fact, with accelerated speed with each passing decade. The sharpest increase in the number of holdings is seen in marginal size group, followed by small size group and semi-medium size group, though in terms of the percentage of holdings, the latter two size groups show a secular declining trend. In 1992, more than 68 per cent of the ownership holdings belonged to marginal size group. On the other hand, medium and large size groups show a quite sharp declining trend in the number of their holdings. The area owned by the total ownership holdings shows a declining trend over the period. But, the area owned by marginal size group increased very sharply over the years, while that by the small size group increased moderately and by the semi-medium size group increased marginally. This has largely happened due to sub-division of holdings and in the case of marginal holdings, partly due to distribution of Government land. On the other hand, there has been a sharp decline in the area owned by medium and large size holdings. In the large size group, it declined from 36.3 million hectares in 1961-62 to 16.2 million hectares in 1992. This decline is also attributable to sub-division of holdings.

TABLE 1. SIZE DISTRIBUTION OF OWNERSHIP HOLIDNGS AND AREA OWNED: ALL INIDA, RURAL

(in '000 ha.)

Size group of ownership holdings	Estimated Number of Households ('000)				Estimated Area Owned			
	1961-62	1971-72	1982	1992	1961-62	1971-72	1982	1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Marginal (Less than 1 hectare)	35,063 (54.79)	41,521 (58.63)	51,916 (62.38)	70,567 (68.30)	9,764 (7.59)	11,671 (9.76)	14,633 (12.22)	19,867 (16.93)
Small (1 to 2 hectares)	10,984 (17.16)	12,140 (17.14)	13,795 (16.58)	15,622 (15.12)	15,945 (12.40)	17,555 (14.67)	19,753 (16.49)	21,822 (18.59)
Semi-medium (2 to 4 hectares)	9,317 (14.56)	9,357 (13.21)	10,118 (12.16)	10,807 (10.46)	26,426 (20.54)	26,223 (21.92)	28,004 (23.38)	28,837 (24.57)
Medium (4 to 10 hectares)	6,572 (10.27)	6,137 (8.67)	6,051 (7.27)	5,297 (5.13)	40,171 (31.23)	36,780 (30.74)	35,735 (29.83)	30,600 (26.08)
Large (10 hectares and above)	2,064 (3.22)	1,661 (2.35)	1,338 (1.61)	1,024 (0.99)	36,329 (28.24)	27,407 (22.91)	21,640 (18.08)	16,228 (13.83)
Total	64,000 (100.0)	70,816 (100.0)	83,218 (100.0)	103,317 (100.0)	128,635 (100.0)	119,636 (100.0)	119,765 (100.0)	117,354 (100.0)

Source: For 1961-62, Government of India (1968); for 1971-72, Government of India (1976), for 1982, Government of India (1987) and for 1992, Sarvekshana (October-December, 1995).

Note: The above distribution excludes zero size class (that is holdings with ownerships 0.0 to 0.002 hectare). The figures in parentheses are percentages.

It is important to mention that in rural India in 1992, about 13 million households were reported to be landless and about 36 million semi-landless, i.e. those with very small holdings of size less than 0.20 hectare. The landless and semi-landless among the rural households were estimated to be 11 per cent and 31 per cent, respectively (Sarvekshana, October-December, 1995, pp. 56-57). Thus, a large number of rural households practically own no land.

The average size of ownership holding remained constant over the time period in marginal size group, but declined in all other size groups, extent of decline increased with the increase in farm size group (Table 2). For the country as a whole, it declined from 2.01 hectares in 1961-62 to 1.14 hectares in 1992.

TABLE 2. AVERAGE SIZE OF OWNERSHIP HOLDINGS: ALL INDIA, RURAL

Size group of ownership holdings	1961-62	1971-72	1982	1992
(1)	(2)	(3)	(4)	(5)
Marginal	0.28	0.28	0.28	0.28
Small	1.45	1.45	1.43	1.40
Semi-medium	2.84	2.80	2.77	2.67
Medium	6.11	5.99	5.91	5.78
Large	17.60	16.50	16.17	15.86
Average	2.01	1.69	1.44	1.14

There are wide variations among the states regarding average size of ownership holding. The average area owned per rural household owning land in 1992 varied

between 0.33 hectare in Kerala and 2.84 hectares in Rajasthan. While it was less than one hectare in Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal, it was between 1.0 hectare and 1.5 hectares in Haryana, Jammu & Kashmir, Karnataka and Punjab; between 1.50 and 2.0 hectares in Gujarat and Maharashtra; and more than 2.0 hectares in Madhya Pradesh (Sarvekshana, October-December, 1995). It can thus be noted that the average size of holding is above 1.50 hectares in states largely having dry land agriculture. Not only this, there are also wide variations in size distribution of ownership holdings among the States. To highlight this, we present in Table 3 the share of ownership holdings and owned area in the total of marginal and large size holdings as observed in the 26th Round (1971-72) and the 48th Round (1992) of the NSS.

TABLE 3. PERCENTAGE SHARE OF HOSUEHOLDS AND AREA OWNED BYMARGINAL AND LARGE SIZE GROUP OF OWNERSHIP HOLIDNGS IN 17 MAJOR STATES IN 1971-72 AND 1992

State	Percentage Share of Households				Percentage Share of Area Owned			
	Marginal		Large		Marginal		Large	
	1970-71	1992	1970-71	1992	1970-71	1992	1970-71	1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	65.30	70.41	2.26	0.39	9.92	21.30	25.58	8.06
Assam	69.58	77.69	0.11	0.08	22.15	38.05	1.64	1.29
Bihar	71.71	80.56	0.37	0.20	18.20	28.58	6.67	4.44
Gujarat	52.25	63.33	5.08	1.67	4.53	9.55	32.65	18.24
Haryana	63.90	59.04	2.48	0.77	4.63	7.96	22.06	7.91
Himachal Pradesh	61.19	79.17	0.51	0.25	21.22	34.99	6.31	4.60
Jammu and Kashmir	59.18	63.40	0.00	0.00	27.41	25.52	0.00	0.00
Karnataka	50.94	58.72	2.81	1.48	5.74	11.05	22.42	16.16
Kerala	88.69	92.66	0.08	0.02	40.88	54.51	2.94	0.66
Madhya Pradesh	40.26	52.38	4.86	1.88	3.34	7.61	28.34	16.57
Maharashtra	48.36	59.47	5.43	2.05	3.48	7.02	34.14	21.41
Orissa	68.94	75.71	0.42	0.12	20.45	26.37	6.00	2.40
Punjab	67.50	69.63	2.23	1.08	4.47	7.18	23.64	12.22
Rajasthan	26.96	44.50	10.05	5.37	2.03	5.42	45.15	34.10
Tamil Nadu	73.17	87.13	0.46	0.12	20.23	33.28	9.75	4.18
Uttar Pradesh	65.58	74.40	0.49	0.21	17.49	27.42	6.07	3.73
West Bengal	77.62	85.88	0.05	0.00	27.28	41.29	0.70	0.00
All India	62.62	71.88	2.12	0.88	9.76	16.93	22.91	13.83

Source: Sarvekshana (October-December, 1995, pp. 65-66).

It is seen from the table that the proportion of marginal holdings and the area owned by them has increased sharply over the years, while it has declined sharply in the case of large holdings in all the states. Except in states with higher share of dry land, such as Gujarat, Karnataka, Madhya Pradesh, Maharashtra and Rajasthan, the share of large holdings (owning more than 10.0 hectares of land) in the total was less than one per cent in all major states (except Punjab) in 1992 and the area owned by them was less than 8.0 per cent. On the other hand, the proportion of marginal holdings ranged between 70.0 per cent and 93.0 per cent in Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Kerala, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal in 1992 and between 55.0 per cent and 70.0 per cent in Gujarat, Haryana, Jammu & Kashmir, Karnataka, Maharashtra and Punjab. In other states also, it was

higher than 50.0 per cent, except in the case of Rajasthan where it was 44.5 per cent only.

The real economic strength and status of a rural person is judged on the basis of his land ownership. This also forms a basis for land ceiling, distribution of government land and obtaining institutional credit. But, his income from agriculture depends on the extent of land operated by him, which incorporates the effect of leasing. The distribution of ownership holdings gets modified due to tenancy arrangement of leasing in and leasing out of land. This is clear from the variations between the size distribution of operational holdings (Table 4) and the ownership holdings (Table 1). The number of operational holdings have got considerably reduced as compared to the ownership holdings in all the rounds of the NSS. In 1992, the number of land ownership households owning land was 103.3 million as compared to the number of operational holdings of 93.5 million, but the area owned was 117.35 million hectares as compared to the operated area of 125.10 million hectares. This difference in area would be due to leasing in of land by operational holdings from urban households and non household entities. The Gini's coefficient of distribution of operational holdings increased sharply from 0.586 in 1970-71 to 0.641 in 1991-92, while that of ownership holdings remained almost constant at 0.71 during the period (Sarvekshana, January-March, 1997, p. 22). This indicates that although the inequality in distribution of ownership holdings is higher than that of operational holdings, it has shown an increasing trend in the case of the latter.

TABLE 4. DISTRIBUTION OF OPERATIONAL HOLDINGS IN INDIA

Size class of operational holdings	Percentage Distribution of Number of Operational Holdings (on the basis of NSS Rounds)				Percentage Distribution of Area Operated (on the basis of NSS Rounds)			
	17th 1961-62	26th 1971-72	37th 1982	48th 1992	17th 1961-62	26th 1971-72	37th 1982	48th 1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Marginal* (Below 1 hectare)	39.07	45.77	56.01	62.80	6.86	9.21	11.51	15.60
Small (1- 2 hectares)	22.62	22.38	19.32	17.79	12.32	14.80	16.59	18.70
Semi-medium (2 - 4 hectares)	19.80	17.66	14.23	11.99	20.70	22.52	23.55	24.13
Medium (4 - 10 hectares)	13.99	11.11	8.56	6.10	31.17	30.49	30.15	26.37
Large (10 hectares and above)	4.52	3.08	1.89	1.32	28.95	22.98	18.21	15.20
Total (in million)**	50.76	57.06	71.04	93.45	135.18	125.58	118.57	125.10
All Sizes	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Sarvekshana, Vol. 12, No.1, July 1988, Table II and III, pp. 29 and 30, and Sarvekshana, No. 3, January-March, 1997. *Includes zero size class of 0.002 hectare (2.59 per cent of holdings in the 48th Round). **The area operated is in million hectares.

Note: In the size class of 0.002-0.20, an increase of 10.26 percentage point has been observed in the 37th Round over the 26th Round in the percentage distribution of operational holdings (11.78 per cent in the 26th Round and 22.04 per cent in the 37th Round). But this increase was only 3.21 percentage point in the 48th Round over the 37th Round.

In order to understand the pattern of change in size distribution of operational holdings as compared to ownership holdings, the relevant data of 48th round of NSS are presented in Table 5. A perusal of the table indicates that only in the case of marginal size group, the number of operational holdings is lower by 20.27 per cent and the operated area is lower by 1.75 per cent as compared to the ownership holdings. In fact, this decline has been confined to the size group below 0.50 hectare only. This probably indicates that a large number of ownership holdings below 0.50 hectare do not operate their land because of the lack of resources with them and uneconomic nature of these holdings. This certainly raises a question to policy makers that if the government land is being distributed for agricultural purposes, it should not be distributed in terms of very small plots.

TABLE 5. SIZE DISTRIBUTION OF OWNERSHIP AND OPERATIONAL HOLDINGS AND THEIR AREA IN 1992 – ALL INDIA (RURAL)

	Ownership			Operational		
Size class of holdings (1)	Estimated number of Households (00) (2)	Estimated Area (00 ha) (3)	Average Per Household (Ha) (4)	Estimated number of Households (00) (5)	Estimated Area (00 ha) (6)	Average Per Household (Ha) (7)
Marginal	705667	198673	0.28	562645	195193	0.35
Small	156219	218218	1.40	166284	233892	1.41
Semi-medium	108074	288366	2.67	112068	301875	2.69
Medium	52974	305999	5.78	56969	329854	5.79
Large	10235	162281	15.86	12343	190231	15.41
Total	1033169	1173537	1.14	910309	1251045	1.37

Source: Sarvekshana, October-December 1995 for ownership holdings and Sarvekshana, January-March 1997 for operational holdings.

Note: The above distribution excludes zero-size class (that is holdings with ownership and operational size of less than 0.002 hectare).

As regards other four size groups, the number of operational holdings and the area cultivated by them are higher than those of ownership holdings. But, the largest difference is in the case of large size holdings (the number of holdings are higher by 20.60 per cent and the area by 17.22 per cent). At the aggregate level, the total number of operational holdings is 11.9 per cent lower than the ownership holdings, but the total area operated by them is 6.6 per cent higher than the total owned area. In absolute terms, in the case of marginal size group, the number of operational holdings is lower by 14.30 million and the area operated is lower by 0.35 million hectares as compared to the ownership holdings and the area owned in the group. On the other hand, the total of the number of operational holdings of the other four size groups (i.e. small to large) is higher by 2.02 million and the operated area is higher by 8.10 million hectares than their ownership counterparts. This increase in the number of operational holdings in small to large size groups as compared to ownership holdings of these groups would have come through the shift of a section of landowners of

marginal size group to these size classes of operational holdings through the arrangement of leasing in land. The increase in operated area in these size groups as compared to their owned area would be due to the leasing in land from marginal size group, urban households, government and non-government institutions and otherwise possessed land. The average size of operational holding works out to be considerably higher than that of ownership holding.

The all-India picture presented above conceals important differences in the composition of agrarian structure in different states because there are differences in the average size of operational holdings among the states and the land holding data do not take into account the differences in the quality of land and agro-climatic conditions that render the average size and the size class distribution across the states not strictly comparable in terms of their yield or returns to cultivators (Dantwala, 1991). According to NSS 48th round (Sarvekshana, January-March, 1997, Table 3.9), the average operated area per holding varies between 0.35 hectare in Kerala and 3.08 hectares in Rajasthan. It is less than one hectare in West Bengal, Tamil Nadu, Bihar and Assam; between 1.0 hectare and 1.50 hectares in Uttar Pradesh, Orissa, Andhra Pradesh and Punjab and between 1.50 hectares and 2.25 hectares in Karnataka, Gujarat, Haryana, Madhya Pradesh and Maharashtra.

A very limited amount of data on the distribution of operational holdings by farm size classes are available from the NSS 59th Round (January-December 2003). This data can be compared with those of NSS 48th Round (January-December 1992) to know the trend in distribution of operational holdings in recent years. The relevant data of these two rounds by farm size groups are presented in Table 6. It is important to note from the table that there has been a sharp decline in the total number of operational holdings in the country from 93.45 million in 1992 to 89.35 million in 2003, indicating that about 4 million farmers have withdrawn from agriculture during this period in search of an alternative occupation. And these farmers seem to belong to all size groups; those belonging to the size group 0.41-1.00 hectare, have shown a sharp increase. It appears that a section of farmers belonging to the size group less than 0.40 hectare shifted to the size group 0.41 – 1.0 hectare through the arrangement of land leasing. The latter size group also gained due to sub-division of holdings in higher size groups. As a consequence, the number of operational holdings in the marginal size group (less than 1.0 hectare) has increased marginally. Therefore, the real decline in the total number of operational holdings took place not only in all size groups, but also the extent of decline increased sharply with farm size. Thus, it is the farmers of these size groups who have abandoned farming. Under normal circumstances, this decline in the number of farmers would have been taken as a sign of economic development, whose pull factor would have drawn out farmers from agricultural to non-agricultural sector. Unfortunately, this does not appear to be the case, as there has been deep distress among the farming community during this period. It is likely that a good section of these withdrawing farmers were dependent on leased in land whose profitability has sharply declined because of increase in rent

and cost of production in the face of near stagnancy in yield. The largest decline in the number of operational holdings has taken place in the size group operating below 0.40 hectare (less than an acre), which is the most vulnerable section among farmers. But, there has also been a sharp decline in the number of operational holdings in the other size groups, including even medium and large size group of holdings. This could have happened due to many factors including agrarian distress, non-viability of a large section of holdings, urge to search for alternative avenues of employment, indebtedness, etc. It may be mentioned that the agrarian distress in certain parts of the country has been so severe that a large number of farmers have committed suicide.

TABLE 6. SIZE DISTRIBUTION OF OPERATIONAL HOLDINGS IN 1992 AND 2003 – ALL INDIA (RURAL)

Size class of operational holdings (ha.) (1)		NSS 48th Round (January-December 1992) Estimated number of Operational holdings (00) (2)	Percentage distribution of holdings (3)	NSS 59th Round (January-December 2003) Estimated number of Operational holdings (00) (4)	Percentage distribution of holdings (5)	Increase/ Decrease in number of holdings (00) (2003-1992) (6)	Percentage Change (7)
Marginal	< 0.40*	352375	37.7	305461	34.2	-46914	-13.3
	0.41 - 1.00	234495	25.1	283610	31.7	+49115	+20.9
	Total	586870	62.8	589071	65.9	2201	+0.4
Small	1.01 - 2.00	166284	17.8	160600	18.0	-5684	-3.4
Semi-medium	2.01 - 4.00	112068	12.0	93504	10.5	-18564	-16.6
Medium	4.01 - 10.00	56969	6.1	42581	4.8	-14388	-25.3
Large	10.00 +	12343	1.3	7748	0.8	-4595	-37.2
All Sizes		934535	100.0	893504	100.0	-41031	-4.4

Source: Sarvekshana, January-March 1997 for NSS 48th Round and Government of India (2005) for NSS 59th Round.

*Includes operational size class of less than 0.01 hectare.

In order to probe further the issue of sharp decline in the number of operational holdings, the data on the number of operational holdings at two points of time for major states are presented in Table 7. It is seen from the table that the largest extent of decline in the number of operational holdings between 1992 and 2003 has taken place in Tamil Nadu (1.92 million), followed by Kerala (1.57 million), West Bengal (1.23 million), Andhra Pradesh (1.12 million), Karnataka (0.53 million), Assam (0.50 million), Bihar+ Jharkhand (0.21 million), Maharashtra (0.19 million) and Haryana (0.13 million). These states generally show the same pattern of decline in the number of their operational holdings by farm size groups as shown by all-India. On the other hand, some states have shown a sharp increase in the number of their operational holdings. The most important among them is Madhya Pradesh + Chhattisgarh (1.29 million), followed by Uttar Pradesh + Uttaranchal (1.04 million), Jammu and Kashmir (0.47 million), Punjab (0.27 million), and Rajasthan (0.18 million). The increase in the number of operational holdings in these states is in conformity with the earlier trend as seen till 1992. But, the sharp decline in the number of these

holdings in a number of states needs to be explained. Unfortunately, adequate information on this issue is not available. The only information available is the change in size distribution of operational holdings, indicating the extent of increase/decrease in the number of holdings in different size groups. Theoretically, the proportion of population dependent on agriculture should decline in agriculture with the economic development. Unfortunately, there is no indication of such happening due to the pull of economic development. In fact, it is the push factors that appear to be responsible for a good section of farmers withdrawing from agriculture in so many states. A clear picture to this effect emerges from a study in Bihar (Sharma, 2005) from where distress migration from all categories of rural population has been taking place. About 40 per cent of all households report at least one migrant and almost all of them receive remittances, which amount to nearly one-third of the total income of the migrant households, the proportion being much higher among landless and small landholders. It is the male members who have been mainly migrating and most of them have been engaged in manual work, such as agriculture (15 percent) and the rest in non-agriculture, such as construction, small manufacturing, brick kiln and earth work or as rickshaw puller, coolie, etc., while a small proportion of workers were self employed. Thus, despite being distress migration from the point of view of the type of work that the migrants do while being away from their family, it seems to improve the economic condition of their family substantially.

TABLE 7. ESTIMATED NUMBER OF OPERATIONAL HOLDINGS IN 1992 AND 2003 IN MAJOR STATES

	Number of Operational Holdings (00)		
State	NSS 48th Round (1992)	NSS 49th Round (2003)	Increase/Decrease (00) (2003-1992)
(1)	(2)	(3)	(4)
Andhra Pradesh	71496	60339	-11157
Assam	30014	25040	-4974
Bihar + Jharkhand	101165	99042	-2123
Gujrat	37120	37845	725
Haryana	20768	19445	-1323
Himachal Pradesh	8704	9061	357
Jammu & Kashmir	4743	9432	4689
Karnataka	45747	40413	-5334
Kerala	37648	21946	-15702
Madhya Pradesh + Chhattisgarh	77919	90804	12885
Maharashtra	67722	65817	-1905
Orissa	42297	42341	44
Punjab	15718	18442	2724
Rajasthan	51306	53080	1774
Tamil Nadu	58122	38880	-19242
Uttar Pradesh + Uttaranchal	170103	180537	10434
West Bengal	81574	69226	-12348
Other States and Union Terrirotries	12368	11814	-554
India	934534	893504	-41030

Source: (1) Government of India (1997), for NSS 48th Round (January-December, 1992)
(2) Government of India (2005), for NSS 59th Round (January-December, 2003).

The examination of farm size group-wise change in the number of operational holdings between 48th Round and 59th Round of NSS indicates that in all the states that have shown decline in total number of their holdings, there has been a very sharp decline in the number of these holdings in the size group less than 0.40 hectare, except in Haryana. In fact, out of the total decline of 1.92 million holdings in Tamil Nadu, 1.68 million decline took place in this size group only. Similarly, the decline in the number of holdings in this size group was 1.34 million in Kerala, 0.67 million in West Bengal, 0.85 million in Andhra Pradesh, 0.34 million in Assam, 0.52 million in Karnataka, 0.40 million in Bihar+Jharkhand and 0.55 million in Maharashtra. Thus, as expected, the impact of the economic distress was the severest in the size group (below 0.40 hectare), forcing a large number of cultivators to leave cultivation in search of more paying occupation. It is the exit from this size group that forms the major part of migration and the increase in the size of agricultural labour category. Among the states showing decline in the total number of operational holdings, only Kerala and Assam show a substantial decline in the number of holdings in size group 0.4-1.0 hectare, while the other states show a substantial increase in it, but this increase is far less than the decline in the number of holdings in size group less than 0.40 hectare. There has been a decline in the number of operational holdings in size groups above 1.0 hectare in most of the states.

In all the states showing sharp decline in the number of their operational holdings, one common factor is that most of the farmers abandoning farming could have been either pure tenant or largely dependent on tenanted land. This is because the rent for leased in land, whether cash or kind, is very high and along with sharply increasing cost of cultivation, has rendered farming totally unprofitable. Coming to individual states, in the case of Tamil Nadu, the recurring droughts and release of inadequate quantity of Cavery waters for irrigation would have forced a section of farmers, particularly tenants, to leave cultivation. There are reasons to believe that in states of Kerala, Andhra Pradesh, Karnataka and Maharashtra, which have been facing widespread agrarian distress resulting in suicides by a large number of farmers, a section of farmers would have gone out of farming due to persistent drought, crop failure and indebtedness. Out migration from Kerala would have resulted in a decline in the number of farmers. Similarly, out-migration from Bihar has been continuing from all castes and classes of the rural population and a section of farmers, particularly belonging to poor upper castes, have been leasing out their land to migrate (Sharma, 2005). In the case of West Bengal, it is reported that a renewed process of centralisation of land holding has been going on by moneylenders in the case of tribals in South Bengal districts (i.e., Midnapore West, Bankura and Purulia (Roy, 2006). A section of non-tribals of the state would also have left agriculture in search of better opportunities. This seems to be corroborated from the fact that between 1978 and 1998, the percentage of landless households increased from 44.8 to 48.7 and the percentage of households with head in non-agricultural occupation increased from 38.7 to 47.4 (Bardhan and Mookherjee, 2004). In

Haryana, relatively large size farmers have leased out their land and have moved to cities. The ethnic struggle in rural areas of Assam would have forced out a section of population from agriculture.

II

TENANCY

An understanding of the phenomenon of tenancy is essential to have an idea about the agrarian relations in rural areas. Tenancy and its terms and conditions reflect the demand and supply position of land in agriculture. A larger proportion of tenants among the farmers indicate higher extent of dependence of rural population on agriculture and lower avenues of outside employment. The prevalence of high land rent is indicative of rack renting.

Trend in Tenancy of Land by Ownership Holdings

The percentage of landowning rural households leasing in land declined from 25 per cent in 1971-72 to 15 per cent in 1992, while the percentage area leased in to total area owned declined from 12 per cent to 9 per cent. On the other hand, the percentage of area leased out to total area owned declined from 6 per cent to 5 per cent. Thus, the extent of tenancy has declined over the period. This pattern of leased in area being much higher than leased out area is true in all the states, as also the percentage of households leasing-in vis-à-vis leasing-out in 1992. Among the states, the highest proportion of households reporting leasing out was in Haryana (10.1 per cent) and the lowest in Jammu and Kashmir (1.0 per cent). The proportion of ownership households reporting leasing-in was the highest in Orissa (22.3 per cent) and the lowest in Jammu and Kashmir (6.4 per cent). The proportion of leased in area to total owned area ranged between 3.2 per cent in Kerala and 41.1 per cent in Haryana. The average area leased-in per reporting ownership household varied between 0.10 hectare in Kerala and 3.17 hectare in Haryana, with the national average of 0.62 hectare. Whereas the next highest leased in area was in Rajasthan (1.43 hectares) followed by Punjab (1.31 hectares) and Madhya Pradesh (1.04 hectares), the states with less than 0.50 hectare of leased in area per household were Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Orissa, Tamil Nadu and West Bengal (Sarvekshana, 1995, Table (14), p. 74).

An overall view on leasing of land by size of ownership holding in India is presented in Table 8. It is seen from the table that there has been a sharp increase in share of leased in area of marginal holdings between 1971-72 and 1992, while that of other size groups declined sharply. About 69 per cent of the total leased-in area is accounted for by marginal ownership holdings. If the share of small holdings is also added to it, it comes to about 84 per cent. Such a high extent of leasing-in by the marginal and small size group of ownership holdings points to their dire need for

economic sustenance. Therefore, liberalisation of tenancy laws may help them in raising their operational holdings by leasing-in more land, possibly with improved terms and conditions, and thus may improve their welfare. On the other hand, the share of marginal holdings in total leased out area is not only much smaller (only 11.31 per cent in 1992), but also shows a declining trend over the years. The share of small and large holdings in the total leased out area also declined during the eighties as compared to the seventies, while that of semi-medium holdings increased sharply and medium holdings increased marginally. Thus, it is the semi-medium and medium size group of ownership households which are leasing out the major part (about 66 per cent) of the total leased out area.

TABLE 8. SHARE OF DIFFERENT SIZE OF OWNERSHIP HOLDINGS IN TOTAL LEASED IN AND LEASED OUT AREA IN INDIA - RURAL

	Percentage of area leased in to total leased in area (on the basis of NSS Rounds)			Percentage of area leased out to total leased out area (on the basis of NSS Rounds)		
Size class of ownership holdings (1)	26th (1971-72) (2)	37th (1982) (3)	48th (1992) (4)	26th (1971-72) (5)	37th (1982) (6)	48th (1992) (7)
Marginal (below 1 ha.)	53.71	50.25	68.93	13.83	13.58	11.31
Small (1 - 2 ha.)	16.21	19.64	14.85	16.94	17.55	15.90
Semi-medium (2 - 4 ha.)	13.72	14.99	9.80	24.77	26.32	40.54
Medium (4 - 10 ha.)	12.27	12.17	6.04	28.51	24.90	25.37
Large (10 ha. & above)	4.09	3.04	0.38	15.94	17.64	6.88
All Sizes	100.00	100.00	100.00	100.00	100.00	100.00

Source: 1. Dantwala (1991) for 26th and 37th Round of NSS.
2. Sarvekshana (1995) for 48th Round of NSS. The figures for this round have been worked out from Table (4R), p. 178.

Although tenancy is prohibited or banned in most of the States (Haque, 2001), it exists in one form or the other in all the states. It remains mostly concealed and unrecorded. It is observed from the data recorded in 48th Round of the NSS that out of 9.5 per cent of the rural households reporting leasing-in land (other than homestead), only 1.3 per cent reported recorded leasing-in and area under recorded lease formed only 16 per cent of the total leased in area (Sarvekshana, 1995, Table (16), p. 76).

Trend in Tenancy of Land by Operational Holdings

The changes in percentage of operational holdings leasing in land and the percentage of area leased-in to the total operated area in individual size groups between 1970-71 and 1992 can be seen in Table 9. At the aggregate level, the percentage of holdings leasing-in land declined from 25.7 in 1970-71 to 11.0 in 1991-92, while the percentage area leased in declined from 10.6 to 8.3. There has been a sharp and consistent decline in the percentage of holdings leasing in land and the area

leased-in in all size groups, except the large size group. In the case of large size group, there has been a sharp increase in the percentage of holdings leasing-in land (from 11.5 per cent to 16.7 per cent) and the area leased (from 5.3 per cent to 11.4 per cent) during 1982 and 1992. The reversal of trend towards higher extent of leasing-in by large size operational holdings could be due to increased profitability in agriculture and an attempt to utilise excess capacity of their capital assets, viz., tractor and tubewell/pumpset.

TABLE 9. PERCENTAGE OF TENANT HOLDINGS AND AREA LEASED IN BY CATEGORIES OF OPERATIONAL HOLDINGS – ALL INDIA (RURAL)

	Percentage of tenant holdings			Percentage of area leased-in		
Operational size group	1971-72 (26th)	1982 (37th)	1992 (48th)	1971-72 (26th)	1982 (37th)	1992 (48th)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Marginal	27.0	14.4	9.3	18.9	9.7	8.7
Small	27.8	17.9	14.9	14.6	8.5	8.5
Semi-medium	24.8	15.9	12.2	11.7	7.3	7.4
Medium	20.0	14.5	13.1	8.7	6.6	6.9
Large	15.9	11.5	16.7	5.9	5.3	11.4
All Categories	25.7	15.2	11.0	10.6	7.2	8.3

Source: Sarvekshana, (January-March, 1977).

The share of holdings leasing-in land declines very sharply with the farm size in 1992, while the share of leased in area increases with the farm size (Table 10).

TABLE 10. DISTRIBUTION OF OPERATIONAL HOLDINGS LEASING IN LAND AND OPERATED AREA LEASED-IN IN 1992 (NSS 48TH ROUND, ALL INDIA RURAL)

Size class of operational holdings	Percentage distribution of operational holdings leasing-in land	Percentage distribution of operational area leased-in
(1)	(2)	(3)
Marginal	53.1	16.3
Small	24.2	19.2
Semi-medium	13.4	21.6
Medium	7.3	22.0
Large	2.0	20.9
All Sizes	100.0	100.0

Source: Sarvekshana (January-March, 1997), Column 2 and 3 have been worked out from Table (3R) p. 113 and Table (4R), p. 124.

The information on land lease market in different states at two points of time are presented in Table 11. A comparison of the incidence of leasing-in between the two points of time in each state and also among the states indicates that not only the incidence of leasing-in land is the highest in Haryana, but it also increased sharply from 18.2 per cent of leased in area in 1981-82 to 33.7 per cent in 1991-92, despite a sharp decline in the percentage of tenanted holdings from 25.9 per cent to 17.1 per

cent. Punjab also shows a similar trend, though the extent of leased-in area is much lower (18.8 per cent in 1991-92). The other states with higher extent of tenancy are Tamil Nadu, Uttar Pradesh, West Bengal, Andhra Pradesh and Orissa. All these states, except Orissa, did quite well in agricultural development during the eighties. Thus, the phenomenon of tenancy appears to be high in states experiencing agricultural growth. The states with relatively low incidence of tenancy, such as Assam, Bihar, Karnataka, Kerala, Maharashtra, Madhya Pradesh and Rajasthan, have also shown sluggish agricultural performance. At the all-India level, the percentage of leased in area increased between the two points, while the percentage of holdings leasing-in land declined.

TABLE 11. PERCENTAGE OF HOLDINGS LEASING-IN LAND AND OPERATED AREA LEASED-IN BY THEM IN MAJOR STATES IN 1982 AND 1992

State	Percentage share of tenant holdings		Percentage share of leased-in area	
	1981-82	1991-92	1981-82	1991-92
(1)	(2)	(3)	(4)	(5)
Andhra Pradesh	13.8	14.1	6.2	9.6
Assam	12.9	10.1	6.4	6.9
Bihar	19.7	5.6	10.3	3.9
Gujarat	4.8	3.7	2.0	3.3
Haryana	25.9	17.1	18.2	33.7
Karnataka	10.7	8.0	6.9	7.4
Kerala	6.7	5.2	2.6	2.9
Madhya Pradesh	8.0	9.0	3.6	6.3
Maharashtra	10.6	6.9	5.2	5.5
Orissa	18.2	16.9	9.9	9.5
Punjab	21.3	15.9	16.1	18.8
Rajasthan	7.1	6.5	4.3	5.2
Tamil Nadu	24.7	15.3	10.9	10.9
Uttar Pradesh	20.5	15.5	10.2	10.5
West Bengal	23.1	14.4	12.3	10.4
India	15.2	11.0	7.2	8.3

Source: Sarvekshana (January-March, 1997).

One of the reasons for high extent of tenancy in Haryana could be the Village Panchayats owning good amount of land and leasing it out on cash rent. In two of the villages surveyed in 1995-96, it was observed that one Village Panchayat had leased out 75 acres of land to 8 households on a total cash rent of about Rs. 3 lakhs, while the other Panchayat had leased out 13 acres of land to 4 households on a total cash rent of Rs. 60,000 (Singh, 1997, p. 301 and p. 308).

Terms of Lease

The changes in terms of lease over time can be seen from Table 12.The percentage of leased-in area on fixed rent, whether on cash or produce, declined sharply between 1970-71 and 1981-82 (jointly from 27.0 per cent to 17.2 per cent), but increased sharply between 1981-82 and 1991-92 (jointly from 17.2 per cent to

33.5 per cent), while the case was just reverse for the share of leased in area on other terms. On the other hand, the share of area under share cropping contracts declined sharply between 1970-71 and 1991-92. Thus, the sharp increase in area share of fixed rent tenancy during the eighties appears to be at the cost of tenancy on other terms and share cropping. Still, the share cropping remains to be the most important terms of leasing in 1991-92.

TABLE 12. PERCENTAGE DISTRIBUTION OF LEASED IN AREA BY TERMS OF LEASE DURING 1970-71 AND 1991-92

	Percentage Distribution of Leased in Area		
Terms of Lease	1970-71 (26th Round)	1981-82 (37th Round)	1991-92 (48th Round)
(1)	(2)	(3)	(4)
Fixed money	15.4 (12.7)	10.9 (11.9)	19.0 (23.3)
Fixed produce	11.6 (10.5)	6.3 (7.6)	14.5 (17.9)
Share of produce	47.9 (50.7)	41.9 (38.7)	34.4 (42.1)
Others	25.1 (26.1)	40.9 (41.8)	32.1 (16.7)
All Terms	100.0 (100.0)	100.0 (100.0)	100.0 (100.0)

Source: Sarveskshana (January-March, 1997, p.32).

Note: Figures in parentheses are the percentage of tenant holdings reporting leased in area under the terms of lease.

The percentage distribution of leased in area by terms of lease and farm size in 1992 is presented in Table 13. The share of leased in area on fixed money terms increases with farm size, while that on share of produce declines with farm size. The leasing on other terms does not show any trend with farm size.

TABLE 13. PERCENTAGE DISTRIBUTION OF LEASED IN AREA BY TERMS OF LEASE BY BROAD SIZE CLASSES – 1992 (ALL INDIA-RURAL)

	Terms of Lease					
Size Class (Ha.)	Fixed Money	Fixed Produce	Share of Produce	From relatives no terms	Others	All
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0.002-1.00	14.4	14.8	39.4	7.3	24.1	100.0
1.01-2.00	15.1	19.1	40.9	4.3	20.6	100.0
2.01-4.00	24.2	14.8	30.1	4.6	26.3	100.0
4.01-10.0	26.4	12.3	27.2	3.4	30.7	100.0
Over 10.0	35.5	11.1	19.0	5.3	29.1	100.0
All Sizes	19.0	14.5	34.4	7.4	24.7	100.0

Source: Sarveskshana (January-March, 1997, p.32).

Note: Percentage for 0.002-1.00 hectare size group has been re-worked by clubbing three size groups.

There are wide variations among the states with regard to the extent of leased in area under different terms of leasing as well as the changes in them over time period (Sarvekshana, January-March, 1997, Table 3.17, p. 34). Some broad pattern are, however, discernable. The leasing-in of land on fixed cash rent contract is more

prominent in developed states, while share cropping is more important in less developed states. The importance of leasing on other terms appears to be declining over time. In Haryana and Punjab, the two most developed states of the country, not only the fixed money terms of leasing-in land is predominant, but it has also become more important over the time period. Between 1981-82 and 1991-92, the percentage of leased in area under fixed money terms increased from 24.2 to 61.4 in Haryana and 42.1 to 49.2 in Punjab. Other states where fixed rent (both cash and kind) tenancies were major component of leased in area in 1991-92 are Andhra Pradesh (52.7 per cent) and Tamil Nadu (52.9 per cent). On the other hand, share cropping tenancy was observed to be the most important terms of teasing in Orissa (51 per cent), Uttar Pradesh (46.5 per cent), West Bengal (46.5 per cent) and Bihar (43.5 per cent).

It is important to mention that between 1981-82 and 1991-92, there has been a shift from 'share cropping' to fixed rent tenancy in major states like Bihar, Haryana, Maharashtra, Punjab and Tamil Nadu. In Andhra Pradesh, Gujarat, Kerala, Orissa and Rajashthan, the share of leased in area under three major terms of lease, viz., 'fixed money', 'fixed produce' and 'share of produce' rose substantially at the cost of the share of 'other terms'. These are continuing changes, but cannot be analysed at the macro-level for a more recent period due to absence of data. Therefore, some micro-level information is being used to examine the recent changes in agrarian relations. In view of the highest incidence of tenancy in Haryana, it would be relevant to pay a little more attention to the tenancy issues in the state.

III

RECENT CHANGES IN AGRARIAN RELATIONS

The information available in some micro-level studies completed recently, which provide information on the extent and terms of leasing, are being used in this section. Some relevant information from a set of three studies done in Haryana (Singh, 2003), Andhra Pradesh (Ramgopal, 2003) and Assam (Borah, 2003) on the basis of a common study design (Singh, 2005) have been presented in this section. The reference year for these studies was the agricultural year 2001-02. The sample farmers of these states exhibit quite distinctive features, both in respect of the extent and pattern of land leasing as well as with regard to the terms of leasing.

The information presented in Table 14 for two districts of Haryana indicate that the extent of leasing is much higher in Karnal than Sirsa district, but is still much lower than what was shown in the NSS 48th Round. The percentage of operated area leased in increases sharply with farm size in Karnal district, but much mildly in Sirsa district.[1]

TABLE 14. EXTENT, PATTERN AND TERMS OF LEASING IN KARNAL AND SIRSA DISTRICTS OF HARYANA – 2001-02

Farm size group (based on operated area) (1)	Karnal district: No. of sample farmers (2)	Operated area per farm (ha) (3)	Area leased in per farm (ha) (4)	Average cash rent per hectare (Rs.) (5)	Sirsa district: No. of sample farmers (6)	Operated area per farm (ha) (7)	Area leased in per farm (ha) (8)	Average cash rent per hectare (Rs.) (9)
< 1 ha.	12	0.55	0.05 (9.09)	24,167	10	0.66	0.08 (12.31)	-
1 - 2 ha.	13	1.39	-	-	11	1.34	0.11 (8.19)	27,181
2 - 4 ha.	19	2.56	0.19 (7.42)	24,074	19	2.61	0.40 (15.48)	25,561
4 - 6 ha.	6	4.72	0.71 (15.04)	21,059	11	4.55	-	-
6 ha. & above	10	11.33	2.87 (25.33)	22,717	9	10.34	1.35 (13.04)	18,533
All hizes	60	3.58	0.62 (17.32)	22,297	60	3.57	0.36 (10.21)	25,771

Source: Singh (2003).
Figures in parentheses are percentage of leased in area to operated area in each size group.

The average cash rent is much higher in Sirsa district than Karnal district, probably because of the importance of cotton cultivation in it. In both the districts, the amount of cash rent declines with the farm size. It is important to mention that out of the total leased in area of 37.2 hectares by the sample farmers of Karnal district, 25.9 hectares were leased-in on cash rent and 11.3 hectares on share cropping. All the land leased-in on share cropping contract was with the farmers belonging to the largest size group, i.e., 6.0 hectares and above. In the case of Sirsa district, out of 21.85 hectares of total leased in area by the sample farmers, 9.30 hectares were leased in on cash rent and 12.55 hectares on share cropping contract. Out of 12.55 hectares of share cropped area, 11.74 hectares were leased in by the largest size group of farmers. It appears from the data of both the districts that share cropping is becoming more important in the lease contract of the large farmers of Haryana.

In the case of both the districts of Haryana, the farmers leasing in land on share cropping contract pay 50 per cent of the produce to land owners, but receive from the latter 50 per cent cost of seed, manure, fertiliser, irrigation, and insecticide and pesticide.

As compared to the average amount of cash rent per hectare of Rs. 22,297 in Karnal district and Rs. 25,771 in Sirsa district of Haryana, it was only Rs. 7,500 per hectare in Balaghat and Rs. 4,000 per hectare in Indore district of Madhya Pradesh (Mishra, 2004); Rs. 8,400 per hectare in Lakhimpur Kheri and Rs. 7,600 per hectare in Badaun district of Uttar Pradesh (Bharti, 2003); and ranged between Rs. 7,000 and Rs. 10,000 per hectare per annum, depending on the quality of land, in Rohtas district of Bihar (Sinha, 2004), ceteris paribus, this difference in rent may largely be due to the difference in productivity of land.

In East Godavari district of Andhra Pradesh, which is a most developed district of the State, paddy is almost the sole crop occupying 49.4 per cent of the cropped area in each of the *kharif* and *rabi* seasons. The extent of leased in area per holding increases sharply with the farm size upto the size group 4 - 6 hectares, but declines mildly in the last size group (Table 15). The percentage of leased in area to operated area is quite substantial in all the size groups and comes to 34.0 per cent for the sample as a whole. The terms of lease for all the leased in land was fixed kind rent in terms of paddy, all the lease contracts were oral only and all the expenses on inputs were borne by the tenant. The average kind rent per hectare of paddy works out to be 46.5 quintals of paddy, which is substantially lower than average productivity of paddy in a season in all the size groups.

TABLE 15. EXTENT AND TERMS OF LEASING IN EAST GODAVARI DISTRICT, ANDHRA PRADESH – 2001-02

Farm size group (based on operated area) (1)	No. of sample farmers (2)	Operated area per farm (ha.) (3)	Area leased in per farm (ha.) (4)	Percentage of operated area leased-in (5)	Average fixed kind rent per hectare in terms of paddy (in quintals) (6)	Average of the *kharif* and *rabi* season paddy productivity per hectare (in quintals) (7)
< 1.0 ha.	28	0.85	0.37	43.53	49.80	59.20
1.0 - 2.0 ha.	16	1.60	0.52	32.00	44.75	59.00
2.0 - 4.0 ha.	7	2.98	0.92	30.87	42.86	61.80
4.0 - 6.0 ha.	5	4.80	2.35	48.96	45.88	58.03
6.0 ha. & above	4	9.56	2.12	22.18	48.10	58.58
All sizes	60	2.21	0.75	33.94	46.51	59.20

Source: Ramgopal (2003).

In the case of Assam, the combined sample data for Jorhat and Nagaon districts are presented in Table 16. One-third of the sample farmers have leased-in land, though this ratio varies between 25 per cent and 44 per cent among size groups. But the area leased-in is only about 8 per cent of the operated area of the sample farmers. This ratio declines sharply with farm size upto the size group 4-6 hectares. The largest amount of leased in area per holding (0.90 hectare) is in the largest size group, while in other size groups, it is either 0.20 hectare or less.

TABLE 16. DETAILS REGARDING LEASED-IN LAND IN JORHAT AND NAGAON DISTRICTS OF ASSAM – 2001-02

Farm size group (based on operated area) (1)	No. of sample holdings (2)	No. of holdings leasing-in land (3)	Percentage of holdings leasing in land (4)	Average operated area per holding (ha.) (5)	Average leased in area per holding (ha.) (6)	Percentage of leased in area to operated area (7)
< 1.0 ha.	19	6	31.6	0.68	0.13	19.7
1.0 - 2.0 ha.	41	18	43.9	1.49	0.20	13.7
2.0 - 4.0 ha.	36	9	25.0	2.93	0.18	6.1
4.0 - 6.0 ha.	16	4	25.0	5.67	0.20	3.5
6.0 ha. & above	8	3	37.5	9.12	0.90	9.9
All sizes	120	40	33.3	2.86	0.23	8.1

Source: Borah (2003).

The terms of lease of the sample farmers show an interesting feature. Out of 27.77 hectares of total leased in land by the sample farmers, 0.40 hectare was leased-in on cash rent by one farmer belonging to small size group, 9.56 hectares on crop share (50 per cent) by 21 farmers belonging to marginal, small and semi-medium size groups, and 17.81 hectares on Paikas by 18 farmers belonging to all size groups. But all the 7 farmers leasing-in land and belonging to the size group of 4-6 hectares and 6 hectares and above had leased-in on Paikas[2] only.

It is clear from the above analyses that the amount of leased in land per holding is substantially higher in larger size operational holdings than the smaller ones. The same holds good in Sangrur district of Punjab (Grover *et al.,* 2003) and Vadodara district of Gujarat (Singh, P.K., 2004) also.

A relatively broad based study on Bihar (Sharma, 2005), based on the data of a recent resurvey of 12 villages (first surveyed in 1981-82 and resurveyed in 1999-2000), indicates the following changes in agrarian relations: (i) 43 per cent of the households are landless and another 43 per cent own less than 2.5 acres of land, (ii) 66 per cent of the cultivating households account for only about 20 per cent of the land, (iii) all classes of cultivators have lost land between two surveys — while landless households and those owning less than 1 acre increased from 67 per cent to 73 per cent, the households owning more than 5 acres declined from 13 per cent to 5.5 per cent, (iv) the percentage of households leasing in land declined from 36 to 23, but the percentage of cultivated area leased in increased from 24.5 to 25.5, (v) both the percentage of households leasing in land and the percentage of cultivated area leased-in in each size group declined substantially upto the size group 5.0 - 10.0 acres in 1999-2000 as compared to 1981-82, but increased substantially in subsequent size groups, indicating emerging trend of reverse tenancy in Bihar also, (vi) the percentage of leased in area under fixed rent tenancy increased from 5 to 24, (vii) the percentage of households selling land and the average area sold in 1999-2000 were the highest in higher caste households and the lowest in scheduled castes, (viii) the percentage of households purchasing land was the highest in upper middle caste households, i.e. Kurmi and Yadav, and the lowest in scheduled caste households, (ix) the migrant workers as percentage of total workers increased from 9.7 to 19.2, but the share of seasonal migrants in total migrants declined from 80.7 per cent to 53.6 per cent, while that of long-term migrants increased from 19.3 per cent to 46.4 per cent, (x) although the incidence of migration is fairly evenly distributed across all castes, by and large, the upper castes and Muslims report more long-term than short-term migration, (xi) there was a drastic decline in the proportion of attached labour to less than 10 per cent, while casual workers to total labour force increased to 52 per cent, and (xii) real wages increased from 50 per cent to 100 per cent in different villages of the region mainly because of worker's struggle or migration.

IV

TENANCY AND PROFITABILITY

It would be important to examine whether productivity and profitability of land under tenancy and own cultivation differ. On this aspect not much information for recent period is available. Therefore, as an illustrative exercise, this aspect is being examined on the basis of sample data of two villages belonging to two agro-climatic regions of Haryana (Singh, 1997). The reference year of the study was 1995-96.The selected villages were Sanwat, Nilokheri block, Karnal district and Dullat, Bhuna Block, Hissar district, the former belonging to semi-arid zone of the state with higher amount of rainfall and greater extent of irrigation, largely through tubewells, while the latter belonging, to dry arid zone with lower amount of rainfall and lower extent of irrigation, largely through canals. In all, 52 holdings were selected randomly in Sanwat village and 50 holdings in Dullat village. The number of farmers leasing in land was 18 in Sanwat village and 13 in Dullat village.

The percentage of leased in area to operated area was 18.5 per cent in Sanwat village and 19.3 per cent in Dullat village. While paddy and wheat, respectively, accounted for 47 per cent and 45 per cent of the gross cropped area in Sanwat village, each of these crops accounted for about 35 per cent of the area in Dullat village. The cropping intensity was 198 per cent in Sanwat and 184 per cent in Dullat village. Out of the 18 farmers leasing in land in Sanwat village, all, except one, had leased in on cash rent contract. On the other hand, out of 13 farmers leasing in land in Dullat village, 8 had leased in on share cropping contract (share rent varying between one-fourth and one-half) and 5 on cash rent contract. The average cash rent per hectare was Rs. 14,212 in Sanwat village, but Rs. 7,638 in Dullat village. All the land lease contracts in these two villages were oral.

The relevant information on the profitability of owned and leased-in land per hectare of cultivated area are presented in Table 17. The average expenses on cash and kind inputs in leased-in land are more than two times higher than those in owned land in both the villages. On the other hand, the value of output per hectare is almost equal in both the categories of land in Sanwat village, but about 8 per cent higher in leased-in land than owned land in Dullat village. Thus, production efficiency of tenants is in no way lower than the owner cultivators, in fact, it is higher. But the cost of cultivation of leased-in land works out to be too high and it is mainly because of very high rent payment for it. As a result, the tenant farmers belonging to the size group less than 1.0 hectare and 2.0 - 4.0 hectares in Sanwat village have incurred considerable amount of losses in the cultivation of their leased-in land. Although, the leased-in land in 1.0 - 2.0 hectare size group in Dullat village also show loss, but, it is mainly because of failure of cotton crop. The net income per hectare of other size group of farmers for their leased-in land is also too small as compared to owned land. Thus, although on the basis of productivity, tenancy does not appear to be inefficient, in reality a tenant derives too small net income from his leased-in land and some of

the tenants also incur losses. Therefore, there is a very strong case for reducing rent, whether cash or kind, for leased land. It is also important to note from the table that net income from leased in land, on an average, is much higher in Dullat village than Sanwat village. This is mainly because of much lower cost of cultivation per hectare, largely due to payment of lower rent in Dullat village. In view of the leasing of land mainly on cash rent in Sanwat village and largely on share cropping in Dullat village, it can be inferred from the analysis that the net income of the tenants from share cropped land is higher than that from cash rented land. This seems to be due to the prevalence of very high cash rent in Haryana.

TABLE 17. VALUE OF INPUTS (CASH AND KIND), OUTPUT AND ENT INCOME PER HECTARE OF CULTIVATED AREA OF OWNED AND LEASED-IN IN THE SELECTED VILLAGES OF KARNAL AND HISSAR DISTRICT OF HARYANA – 1995-96

(*Rs.*)

Village (1)	Farm size group (based on operated area) (in hectares) (2)	Per hectare of owned cultivated area (Rs.) Total cash and kind expenses (3)	Value of output (4)	Net income (5)	Per hectare of leased-in cultivated area (Rs.) Total cash and kind expenses (6)	Value of output (7)	Net income (8)
Sanwat, Karnal District	Less than 1.00	12,658	28,679	16,021	28,023	25,858	-2,165
	1.00-2.00	14,123	28,404	14,281	25,291	28,207	2,916
	2.00-4.00	15,346	34,269	18,923	37,373	33,161	-4,212
	4.00 & above	12,917	29,377	16,460	28,338	30,291	1,952
	All Farms	13,563	30,306	16,743	29,902	30,579	677
Dullat, Hissar District	Less than 1.00	8,597	26,253	17,656	-	-	-
	1.00-2.00	10,900	28,169	17,269	18,550	14,996*	-3,554
	2.00-4.00	9,731	29,747	20,015	20,775	31,726	10,951
	4.00-10.00	8,406	25,852	17,446	22,880	31,041	8,161
	10.00 & above	9,040	33,964	24,924	19,266	31,386	12,120
	All Farms	9,035	28,273	19,238	21,393	30,565	9,172

Source: Singh (1997), Table 6.49 and 6.50, pp. 299-300.

*****The reasons for very low value of output per hectare were that only two farmers of this size group had leased-in land and their cotton crop had almost failed. Also, the cropping pattern adopted by them was of very poor quality with very low proportion of gross cropped area under wheat and cotton, and very high proportion of area under low value *kharif* and *rabi* crops.

Note: Cash and kind expenses include expenses on seed, manure and fertilizers, insecticides and pesticides, hired irrigation charges, hired human labour, hired bullock labour, hired machine labour, depreciation on machinery and irrigation equipment, (minus income earned from hiring them out), interest on working capital and rent paid for leased-in land (minus the cost of inputs received from the landlord in the case of share cropping).

V

AGRARIAN DISTRESS AND SMALL FARMERS

As seen earlier, the agrarian scene in India is dominated by marginal farmers, who, account for about 68 per cent of the total ownership holdings, but own only about 17 per cent of the area. They face a livelihood crisis of enormous proportion and alongwith agricultural labour, are the most vulnerable lot in rural areas. Their

holdings are not at all viable economically. Also, there is not much additional employment opportunities for them in rural areas to supplement their agricultural income. Consequently, a good section of them migrates to cities or to rural areas of advanced states in search of job and in the process, many of them lease out their land. But, those among them, who continue cultivating their land, find it very hard to meet their both ends. It is this group of farmers alongwith small farmers (constituting 15 per cent of ownership holdings and owning 19 per cent of land) who formed the major part of the farmers who committed suicide in some states in recent past (Dandekar *et. al.,* 2005; Mishra, 2006; Mohanty, 2005; Vidyasagar and Chandra, 2003). Their small land base and high aspiration of raising their income by cultivating commercial crop made them extremely vulnerable to drought and crop failures which led them to debt trap of non-institutional money lenders-cum-suppliers of sub-standard inputs at a high cost and whose pressure on them to repay their loan pushed many of them to take their own life. In Andhra Pradesh alone, more than 3200 farmers, most of whom were cotton growers, committed suicide during 1998 and 2002 (Patnaik, 2005, Table 6, p. 5). Similarly, quite a large number of farmers also committed suicide in Karnataka, Maharashtra, Kerala and Punjab.

What is the possibility of making marginal farmers economically viable? The first possibility that needs to be explored 'is that of land distribution through land reforms. The land reform is not a dead issue, particularly in areas infested by left radical (naxalite) movement. One of the reasons for this is that alternative employment opportunities are not available. Otherwise, rural youths today are not greatly interested in agriculture. In fact, they are more interested in stable source of income, irrespective of the type of avocation. This is corroborated by NSS 59th Round which indicates that given the choice, 40 per cent of the farm households would quit farming to take up some other career, while 27 per cent of them do not like farming because of its not being profitable (Government of India, 2005b). Much earlier, the National Agricultural Policy has stated that "agriculture has also become a relatively unrewarding profession due to generally unfavourable price regime and low value addition, causing abandoning of farming and increasing migration from rural areas" (Government of India, 2000, p. 1). The situation has exacerbated further with the integration of agricultural trade in the global system and removal of quantitative restrictions which resulted in price crash of many agricultural commodities. Even in the case of Punjab, the agriculturally most developed state of India, it has been observed that "the younger generation of enterprising Punjab farmers no longer find villages offering them the kind of opportunities they are looking for. A move to the city appears to be rather imminent" (Jodhka, 2002). Thus, the distribution of land should not be considered as the only option for raising the income of the marginal farmers.

With their current poor land base, a large proportion of marginal farmers derive a substantial part of their income either as agricultural labourers or from non-farm activities, such as non-farm wage labour or petty enterprises. This can be seen from

the fact that during 1991-92, among households owning 0.002 to 0.20 hectare, only 10.9 per cent had reported to be self employed in agriculture as major source of income, while 46.1 per cent were engaged as agricultural labourers and 43.0 per cent were engaged in other activities. Further, in the case of the households owning 0.21 to 0.50 hectare, only 43.5 per cent of the households were self employed in agriculture, while 29.8 per cent of them worked as agricultural labourers and 26.7 per cent were engaged in other activities (Sarvekshana, October-December 1995, p. 222). Therefore, having very small pieces of land do not help them to have sufficient employment and income from their holdings. However, some of them may be making efforts to lease in land to improve their holding size. In the case of Bihar, it has been observed that scheduled castes own the smallest size holdings, but have leased in the largest proportion cultivated area among all the caste groups (Sharma, 2005).

Coming to the question of increasing access to land of marginal farmers, it may be relevant to mention that the arithmetical exercises carried out by Dandekar and Rath (1971) and Minhas (1974) indicate extremely limited potential for acquisition of surplus land and its redistribution to reduce inequality in land ownership. It has further been pointed out that "almost 60 per cent of the area under large farms to which ceiling can be applied is in dry land regions of Rajasthan, Madhya Pradesh and Maharashtra. The bulk of the land is unirrigated and the productivity of the land is very low. As such, the availability of surplus land in 'standard' acres is much less than indicated by the crude land distribution statistics" (Dantwala, 1991). There is a view that to acquire sufficient amount of land for redistribution, the ceiling limit itself should be brought down in all states. A study that analysed state-wise distribution of land according to size class has shown that "roughly speaking even if ceiling is fixed at 4 hectares of land and surplus lands are effectively redistributed among marginal farmers, the average size of marginal holdings will increase to 1.27 hectares in the country as a whole", which would still be lower than the minimum size of holdings of 1.72 hectares required to earn income above the poverty level under the existing level of technology adoption (Haque, 1988, as cited by Dantwala, 1991). But, since then, the number of holdings in medium and large size groups and the area owned by them would have declined considerably due to sub-division of holdings and, therefore, would have further reduced the quantum of land to be acquired at the ceiling level of 4 hectares. In a densely-populated area of eastern Uttar Pradesh, hardly any surplus land would have been available even in the late sixties even at the ceiling level of 4 hectares (Singh, 1973). Therefore, the potential of acquiring ceiling surplus land for redistribution to marginal farmers is quite low. However, wherever surplus land can be obtained by lowering the ceiling, that should be done. Similarly, wherever vested land is available, it should be distributed to the poor as is being done in Andhra Pradesh (Akella and Nielsen, 2005). Alternatively, the standing Committee on Agriculture has recommended that the Ministry of Agriculture should chalk out a plan to provide non-farm employment to landless/small farmers during the lean period to improve their standard of living (Government of India, 2001, p. 5). In this

direction, a beginning has been made through the enactment and implementation of the National Rural Employment Guarantee Act, 2005.

The Indian farmer in general appears to be facing a serious crisis for his survival. Not only his profitability has declined, but also he is highly indebted. The intensity of indebtedness has been rising because of declining access to institutional credit and increasing dependence on moneylender-cum-input dealer-cum-middleman trader who charges exorbitant rate of interest. The data available from the 59th Round of NSS, which was conducted in 2003, (Government of India, 2005a), indicate that at the all-India level, nearly half (48.6 per cent) of the farmers' households are indebted, the incidence of indebtedness is the highest in Andhra Pradesh (where the largest number of farmers committed suicide) with 82 per cent of the farmers being indebted, followed by Tamil Nadu (74.5 per cent), Punjab (65.4 per cent), Kerala (64.4 per cent) and Karnataka (61.6 per cent). More than half of the farmers are also in debt in Maharashtra, Haryana, Rajasthan, Gujarat, Madhya Pradesh and West Bengal. Despite the fact that the major part of the total loan (58.4 per cent) has been taken for productive purposes (capital and current expenditure in farm business), the farmers have found it difficult to repay even such loans due to changes in production conditions, resulting in vicious cycle of indebtedness. The moneylenders are found to be the most important source of credit with 29 per cent of the farmers accessing this source, followed by banks (27 per cent), co-operatives (26 per cent), relatives and friends (18 per cent), traders (12 per cent), government (3 per cent) and others (5 per cent). At the all-India level, the average amount of loan outstanding per farmer is Rs. 12,585. It rises very sharply with the farm size from Rs. 13,762 in size group 1.01 - 2.0 hectares to Rs. 76,232 in size group more than 10 hectares. Even for marginal size groups, it is quite substantial and varies between Rs. 6121 in size group less than 0.1 hectare and Rs. 8623 in size group 0.4 - 1.0 hectare. But, more surprising is the fact that the proportion of indebted farmers show a secular increase with the farm size from about 45 per cent in marginal size group to 66.4 per cent in the large size group. These facts provide a fair idea about the agrarian distress in India and make one to ponder over the steps to be taken to ameliorate the situation.

Now the question arises as to what should be done to ameliorate the condition of marginal farmers. There are severe constraints, as indicated earlier, to redistribute land to them. They are not in a position to purchase land because of its very high price and much lower rate of returns even to cover the rate of interest of the loan taken from institutional sources. Also, the actual yearly transaction in land is very limited. As compared to this, land lease market is much more active. But, there are restrictions on leasing of land in most of the states. However, there are indication from the Central Government that they would strive to develop lease markets for increasing the size of small and marginal holdings by making legal provisions for leasing of land for cultivation and agri-business (Government of India, 2000). If this is done, probably more land will be available on lease to small and marginal farmers and probably at a lower rent. Similarly, the government is in favour of contract

farming and a model of it has already been prepared by the Ministry of Agriculture (Haque, 2003). Some state governments have already permitted contract farming in their states. Although the effect of contract farming on yield and income of farmers has been found to be positive, the participation of small farmers in it has been quite low in Punjab (Haque, 2000; Singh, 2000). But, in the case of Andhra Pradesh, though their participation has been negligible in the case of oil palm, it has been considerable in the case of gherkin (Dev and Rao, 2005). In view of the above considerations, a combination of measures may have to be taken to ameliorate the condition of the marginal and small farmers.

VI

CONCLUDING REMARKS

The total number of ownership holdings increased sharply from 64.0 million to 103.3 million between 1961-62 and 1992, but the total area owned declined from 128.6 million hectares to 117.4 million hectares. The average area owned per holding declined sharply from about 2.0 hectares to 1.1 hectares. On the other hand, the total number of operational holdings increased from 50.8 million to 93.5 million, but the total area operated declined from 135.2 million hectares to 125.1 million hectares. The comparison of distribution of number of holdings and area by farm size groups between ownership and operational holdings in 1992 indicates that only in the case of marginal size group, the number of operational holdings is substantially lower than the ownership holdings, while the operated area is only marginally lower than the owned area. This indicates that a large number of marginal farmers owning very small plots donot cultivate their land. Therefore, if government land is to be distributed, it should not be distributed in very tiny plots. In the case of other size groups, both the number of operational holdings and the area operated are higher than the number of ownership holdings and the owned area. This would have happened largely due to shift of a section of landowners of marginal size group to higher size groups of operational holdings through land leasing arrangements from marginal ownership holdings, urban households and government and non-government institutions and also due to the otherwise possessed land.

There seems to be a sharp decline in the number of operational holdings from 93.45 million in 1992 to 89.35 million in 2003, thus indicating that about 4 million farmers have withdrawn from agriculture in search of an alternative occupation. These farmers who abandon agriculture belong to the category of small to large size groups, since the number of farmers in the marginal size group has increased. In the case of individual states, the number of holdings declined sharply in Tamil Nadu, Kerala, West Bengal, Andhra Pradesh, Karnataka, Assam, Bihar, Maharashtra and Haryana. There has been an increase in the number of holdings in other major states. The states showing decline in the number of their holdings largely follow the same pattern of decline by the size groups as shown by all-India.

There has been a sharp decline in the extent of tenancy between the early seventies and the early nineties on the basis of ownership holdings. The share of leased in area of marginal ownership holdings increased sharply during the period, while that of other ownership size groups declined sharply. Whereas, 69 per cent of the total leased in area was accounted for by marginal ownership holdings in 1992, about 66 per cent of the total leased out area was accounted for by semi-medium and medium size group of ownership households. As regards tenancy with respect to operational holdings, the percentage of holdings leasing in land showed a declining trend in all the size groups between 1971-72 and 1992, except the large size group. The percentage of area leased in also showed the same trend broadly. In the case of the large size group, both the share of holdings leasing in land and the share of area leased-in declined during the seventies, but increased during the eighties. In 1992, the share of holdings leasing in land declined very sharply with farm size, but the share of leased in area roughly showed an increasing trend with farm size. It is observed that the states showing higher agricultural growth in the eighties also had higher incidence of tenancy and vice-versa. Although declining in terms of area share, the share cropping is observed to be the most important terms of lease, followed by fixed rent tenancy. The leasing of land on fixed cash rent contract is observed to be more prominent in developed states, while share cropping is more important in less developed states.

The micro-level information used for certain states throws some interesting light on the extent and terms and conditions of tenancy. Whereas area leased in as a percentage of operated area showed an increasing trend with farm size in Karnal district, it did not show any trend in Sirsa district of Haryana. For the sample farmers, it was about 15 per cent in Karnal district, but only 10 per cent in Sirsa district. It appears that the share cropping is gaining importance in large size farms in Haryana. One of the reasons for this could be that the cash rent is proving to be higher than the share rent. In East Godavari district of Andhra Pradesh, about one-third of operated area is leased in, but all the leasing is done on fixed kind rent in terms of paddy only. However, fixed kind rent per hectare is found to be much lower than fifty per cent share of the produce. The analysis of data of two districts of Assam shows that only 8 per cent of the operated area is leased-in by the sample farmers. In this case, the major part of the leased in area is taken by farmers on cash rent, which is to be paid before the cultivation of land.

The analysis of profitability in two villages of Haryana indicates that although the productivity of owned and leased in cultivated land are almost equal, their profitability differ widely because of much higher cost of cultivation of leased in land due to inclusion of rent in it. The farmers of certain size groups of the village mainly who leased on cash renting terms have incurred net losses for their leased in land. Even otherwise, the net income per hectare is observed to be substantially lower for leased in land than owned land in both the villages.

The country has been passing through agrarian distress. A large number of farmers committed suicide in some states in the recent past. About half of the farmers are indebted. The percentage of indebted farmers and the amount of debt per farmer increase with farm size. The average amount of debt per farmer is quite substantial, even for marginal farmers. The marginal farmers are not viable economically. There is very little scope for redistribution of land to them to make their holdings economically viable. The freeing of land lease market by taking suitable legal steps has not yet materialised. The contract farming has not been effective in taking small and marginal farmers in its fold. Therefore, provision of non-farm employment remains the most potent device for helping the marginal farmers and the agricultural labourers.

NOTES

1. In another study in Karnal district of Haryana with the reference year of 1997-98 and based on 164 sample farmers, it was found that the leased in area per operational holding increased very sharply with farm size from 0.03 hectare in marginal size group to 2.43 hectares in large size group and about 95 per cent of the leased in area was leased on cash rent (Singh, 2001, p. 179).

2. Paikas is a system of cash renting in which land is leased out for a year or two on a reasonable amount of cash rent received in advance before ploughing the land. In this system, the tenant has liberty to raise as many crops as he can during a year and he is also at liberty to lease out the land to any one else on share cropping. This system of land leasing is adopted by big land owners of plain tribal areas of Assam.

REFERENCES

Akella, K.V. and R. Nielsen (2005), "Andhra Pradesh: Building on Political Will: Next Step for Land Reform", *Economic and Political Weekly*, Vol.40, No.34, pp. 3719-3720, August 20.

Bardhan, Pranab and Dilip Mookherjee (2004), “Poverty Alleviation Efforts of Panchayats In West Bengal” *Economic And Political Weekly*, Vol.39, No.9, pp. 965-974,February 28.

Borah, D. (2003), *Building up of an Efficient Marketing System to Obviate the Need for a Large Scale State Intervention - A Study in Assam*, Study No. 113, Agro-Economic Research Centre for North East India, Assam Agricultural University, Jorhat (mimeo.).

Dandekar, Ajay, *et.al.* (2005), "Census of Farmer Suicides in Maharashtra: An Enquiry" Final Report Submitted to the Mumbai High Court, Tata Institute of Social Sciences, Rural Campus, Tuljapur, Dist. Osmanabad (Mimeo.).

Dandekar, V.M. and Nilakantha Rath, (1971), *Poverty in India*, School of Political Economy, Poona.

Dantwala, M.L. (1991), "Agrarian Structure and Agrarian Relations in India" in M.L. Dantwala (Ed.) (1991), *Indian Agricultural Development Since Independence: A Collection of Essays*, Second (Revised) Edition, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.

Dev, S. Mahendra and N. Chandrasekhara Rao, (2005), "Food Processing and Contract Farming in Andhra Pradesh: A Small Farmer Perspective", *Economic and Political Weekly*, Vol.40, No.26, June 25.

Government of India (1968), *National Sample Survey: 17th Round: September 1961 -July 1962*, No. 144, Tables with Notes on Some Aspects of Land Holdings in Rural Areas, National Sample Survey Organisation, Department of Statistics, Cabinet Secretariat, Ministry of Planning, New Delhi.

Government of India (1976), *National Sample Survey: 26th Round: July 1971 - September 1972*, Number 215, Tables on Land Holdings - All India, Vol. I, National Sample Survey Organisation, Department of Statistics, Cabinet Secretariat, Ministry of Planning, New Delhi, February.

Government of India (1987), "A Note on Some Aspects of Household Ownership Holdings: NSS 37th Round (1982)", *Sarvekshana*, Vol.11, No. 2, October.

Government of India (1988), "A Note on Some Aspects of Operational Holdings: NSS 37th Round (1982)", *Sarvekshana*, Vol.12, No. 1, July.

Government of India (1995), "Some Aspects of Household Ownership Holdings: NSS 48th Round (1992)", *Sarvekshana*, Vol.19, No. 2, October-December.

Government of India (1997), "A Note on Operational Land Holdings in India, 1991-92 - NSS 48th Round (January-December 1992)", *Sarvekshana*, Vol. 20, No. 3, January-March.

Government of India (2000), Department of Agriculture and Cooperation, National Agricultural Policy.

Government of India (2001), Ministry of Agriculture, National Agricultural Policy, Twenty Third Report, Lok Sabha Secretariat, New Delhi.

Government of India (2005), *Situation Assessment Survey of Farmers: Indebtedness of Farmer Households, NSS 59th Round (January-December 2003)*, Ministry of Statistics and Programme Implementation, NSSO, Report No. 498, May.

Government of India (2005a), *Situation Assessment of Farmers: Some Aspects of Farming, NSS 59th Round (January-December 2003)*, Ministry of Statistics and Programme Implementation, NSSO, Report No. 496, July.

Grover, D.K., Kamal Vatta and Sanjay Kumar (2003), *Building up of an Efficient Marketing System to Obviate the Need for Large Scale State Intervention in Punjab*, AERC Study No. 8, Agro-Economic Research Centre, Punjab Agricultural University, Ludhiana (mimeo.).

Haque, T. (1988), "Role of Technological Change in Improving the Economic Conditions of Marginal Farmers and Landless Labourers in India" Paper presented to the Seminar on Interrelationships between Science and Technology and Social, Structural, Environmental and Cultural Changes for Eradication of Rural Poverty, September 1-3, 1988 Convened by Indian Association of Social Science Institutions, New Delhi (mimeo.).

Haque, T. (2000), "Contractual Arrangements in Land and Labour Markets in Rural India", *Indian Journal of Agricultural Economics*, Vol. 55, No. 3, July-September.

Haque, T. (2001), *Impact of Tenancy Reforms on Productivity Improvement and Socio-Economic Status of Poor Tenants*, Policy Paper 13, National Centre for Agricultural Economics and Policy Research, New Delhi.

Haque, T. (2003), "Reforms for Agricultural Growth and Rural Development", Economic and Political Weekly, Vol.38, No.48, November 29.

Jodhka, Surinder S. (2002), "Revisiting Agrarian Issues", *Economic and Political Weekly*, Vol.37, No.8, February 23.

Minhas, B.S. (1974), *Planning and the Poor*, S. Chand & Co., New Delhi.

Mishra, Srijit (2006), *Suicide of Farmers in Maharashtra* (Submitted to the Government of Maharashtra), Indira Gandhi Institute of Development Research, Mumbai (mimeo.).

Mishra, A.M. (2004), *Building up of an Efficient Marketing System to Obviate the Need for a Large Scale State Intervention in Madhya Pradesh*, Agro-Economic Research Centre, Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur, (M.P.) (mimeo.).

Mohanty, B.B. (2005), "We are Like the Living Dead': Farmer Suicides in Maharashtra, Western India", *The Journal of Peasant Studies*, Vol. 32, No. 2, April.

Patnaik, Utsa (2005), "Food Security Situation in India-II", *Young Indian*, May 14-20.

Ramgopal, N. (2003), *Building up of an Efficient Marketing System to Obviate the Need for a Large Scale State Intervention in Andhra Pradesh*, Report No. 113, Agro-Economic Research Centre, Andhra University, Visakhapatnam (mimeo.).

Roy, Biswjit (2006), "Maoist Mean Business", *The Statesman*, New Delhi, 11, January, p.7.

Sharma, Alakh N. (2005), "Agrarian Relations and Socio-Economic Change in Bihar", *Economic and Political Weekly*, Vol.40, No.10, March 5-10.

Sharma, Bharti (2003), *Building up of an Efficient marketing System to Obviate the Need for a Large Scale State Intervention*, Agro-Economic Research Centre, University of Allahabad, Allahabad.

Singh, J.P. (1973), "Ceiling on Agricultural Holdings: Light on a Case Study", *Southern Economist*, Vol. 12, No. 2, May 15.

Singh, J.P. (1997), *Analysis of Trends in Operational Holdings in Haryana*, Research Study No. 97/4, Agricultural Economics Research Centre, University of Delhi, Delhi.

Singh, J.P. (2001), *Role of Cooperative Credit in the Development of Different Size Group of Farmers in Haryana (A Case Study of Karnal District*), Research Study No. 2000/4, Agricultural Economics Research Centre, University of Delhi, Delhi.

Singh, J.P. (2003), *Building up of an Efficient Marketing System to Obviate the Need for a Large Scale State Intervention in Haryana*, Research Study No. 2003/3, Agricultural Economics Research Centre, University of Delhi, Delhi (mimeo.).

Singh, J.P. (2005), *Building up of an Efficient Marketing System to Obviate the Need for a Large Scale State Intervention- A Consolidated Report*, Research Study No. 2005/1, Agricultural Economics Research Centre, University of Delhi, Delhi (mimeo.).

Singh, P.K. (2004), *Building up of an Efficient Marketing System to Obviate the Need for a Large Scale State Intervention in Gujarat*, Research Study No. 126, Agro-Economic Research Centre, Sardar Patel University, Vallabh Vidyanagar, Gujarat (mimeo.)

Singh, Sukhpal (2000), "Contract Farming for Agricultural Diversification in Indian Punjab: A Study of Performance and Problems", Indian Journal of Agricultural Economics, Volume 55, No. 3, July-September.

Sinha, R.K. (2004), *Building up of an Efficient Marketing System to Obviate the Need for a Large Scale State Intervention in Bihar*, Agro-Economic Research Centre for Bihar and Jharkhand, T.M. Bhagalpur University, Bhagalpur (mimeo.).

Vidyasagar, R.M. and K. Suman Chandra, (2003), Farmers' Suicides in Andhra Pradesh and Karnataka, National Institute of Rural Development, Hyderabad (mimeo.).