Working Paper No. 55
April, 2004

LARGE FARMERS IN THE LEASE MARKET

How and Why Do They Enter the Market?
Are Marginal Farmers Affected in the Process?

C. S. Murty

CENTRE FOR ECONOMIC AND SOCIAL STUDIES
Begumpet, Hyderabad-500016

LARGE FARMERS IN THE LEASE MARKET

How and Why Do They Enter the Market? Are Marginal Farmers Affected in the Process?

Abstract

1. The importance of economically dominant farmers is increasing in the lease market for agricultural land. This is particularly evident from the NSS data of 1981-82 and 1991-92 on the percentage of operational holdings and operated area under tenancy and on the shares of large farmers in total tenanted holdings and tenanted area. Increase in the significance of large farmers in the lease market is a disquieting development because:

- ❍ *Taking advantage of tenancy laws the farmers can get conferred ownership or occupancy rights on tenanted lands under their control.*
- ❍ *They can take advantage of the laws and cause hardship to petty lessors (landlords) and, in particular, to institutional lessors.*
- ❍ *They can displace petty peasants from the lease market.*
- ❍ *They can expose poor tenants to a process of self-exploitation by vying with them for land in the lease market.*

2. The once isolated incidents of the practice of large farmers taking land on lease by now (1991-92) spread to new regions and got intensified in certain others. Thus in the states of AP, Assam, Haryana, Karnataka, Kerala, Punjab, Rajasthan, and to a lesser extent in MP, UP and TN large farmers have become a force to reckon with in the lease market.

3. The *modus operandi* of large farmers seeking to edge-out their competitors in the lease market is that they offer rent in fixed cash, invariably at the beginning of the season, to their lessors in return for the lease of land. The farmers appeal to the compulsions of the lessors for secure rental receipts by offering to pay fixed cash rents. Petty peasants, being less able to do so, lose out to these farmers in competition for tenanted land.

4. The increasing dominance of large tenants does not, however, appear to be at the expense of the poorest of the poor marginal tenants. Although marginal tenants got dislodged in some states consequent upon an increase in the importance of large tenants between 1981-82 and 1991-92, there are also states where both classes of tenants secured greater hold on the lease market. The proportions of holdings and area under tenancy with large farmers and those with marginal farmers bear no relationship whatever in the 1991-92 cross-section data of major states. But it should not come as a great relief, for it is possible that marginal tenants are now obliged to pay higher rents than earlier in trying to stay in competition with large tenants.

5. The notion that the costliness of new technology compels poor peasants to voluntarily opt out of the lease market and the resultant increase in the supply of land for lease enables large farmers to gain ascendancy in the lease market has little support in the data of recent times. There is only one state, Haryana, where the increase in the real cost of cultivation between 1981-82 and 1991-92 culminated in a decrease in the hold of marginal farmers and a simultaneous increase in the importance of large farmers in the lease market. The cost factor is also found unimportant in influencing the leasing behaviour of marginal farmers even when the cross-section data of Indian states pertaining to 1991-92 is examined. The peasants do not appear to be opting out, rather, they are being driven out.

6. High wage rates seem to favour mechanization of farming operations and with it the operation of large holdings. Farmers who are constrained to increase their ownership holdings because of ceiling laws are, therefore, making their way into the lease market for agricultural land.

7. The entry of large farmers into the lease market may further capitalist development in the agricultural sector. But in the process numerous prospective tenants from the poorer sections can get distanced from the lease market. The institution of land tenancy which derives its legitimacy on the ground that it would help poor peasants to gain access to tenanted land and thereby would fulfill their hope of advancing on the agrarian ladder

will be of no avail. It can also give rise to a situation where, petty tenants, in trying to compete with large tenants for tenanted land will end up paying rents higher than the usual to their landlords. Besides, sooner or later, the process can have a dampening effect on real wages of agricultural labour and can stunt the growth of rural employment.

8. Therefore, it seems important to make tenancy laws sufficiently stringent to restrict the entry into the lease market only to petty peasants. The quantitative significance of the incidence of tenancy among large farmers is high enough, though in a relative context, to enact and enforce such exacting laws. The surplus land distributed in the country up to September, 1991 was 19.48 lakh hectares while the tenanted land under the control of large farmers (with operated land in excess of 10 hectares) as of 1991-92 was 21.63 lakh hectares. Apart from the land leased-in by this class of farmers there is also the land which was leased-in by other relatively higher classes of farmers. And what is more, even the NSS estimates of land under lease, though are on a far higher side compared to the leased-in land as per Agricultural Census, are admittedly underestimates themselves. By preventing large farmers from entering into the lease market, it should be possible to bring down inequity in the distribution of operated land, an objective which is sought to be achieved by allowing tenancy. Such a step is also desirable in the interest of wages and employment in the agricultural sector. Also, as a means to increase the access of land to the rural poor, the policy of barring large farmers from the lease market assumes importance, in view of the closing-in of the possibilities to acquire and distribute land accruing on account of ceiling laws.

9. In sum, it is necessary to rid the large tenant of the lease market in the interest of the poor peasant, who yearns to lease-in a piece of land. The notion that the petty peasant is opting out of the lease market because of costliness of new technology seems unfounded. The peasant is not opting out, rather the large farmer is forcing him to withdraw from the market by appealing to the need of his lessor for secure rental receipts and by paying him rent in fixed cash. It is in the interest of the large farmer to drive out the petty cultivator from the lease market and thereby gain control over it, be-

cause mechanization of farming operations, in the context of high wages, is making heavy demands on him to expand the size of his operational holding. With the scope to enlarge the ownership holding having decreased, more because of the deterrent effect of the land ceiling laws, the large farmer has no option but to lease-in land to expand the size of holding to put his capital assets to optimum use. Large farmers may contribute to capitalist development in agriculture. But development of capitalist relations may lead to proletarianisation of large sections of the rural working classes.

The author wishes to acknowledge with thanks the comments by V.N. Reddy and S. Subrahmanyam on an earlier draft of this paper.

LARGE FARMERS IN THE LEASE MARKET

How and Why Do They Enter the Market? Are Marginal Farmers Affected in the Process?

C. S. Murty

1. Introduction

What is the economic standing of cultivators participating in the lease market for agricultural land? Are they all petty peasants? These questions deserve serious attention for the reason that tenancy laws in the States, even after several amendments, still seem to be based on the premise that tenants as a class are of low economic standing and, therefore, if cultivators of large size-class could gain control over tenanted land, they would not serve the purpose for which they are meant, to promote equity, or would even prove counter-productive (Vyas, 1970, A73; Nadkarni, 1976, A139; Haque and Sirohi, 1986, 136-41; Gill, 1989, A84). The Congress Agrarian Reforms Committee (AICC, 1949) provided guidelines to States in the formulation of tenancy laws in the early years of Independence based on this very premise (Murty, 1987). Even the later day revisions to the laws have not quite incorporated clauses to make it difficult for the big tenants to enter the lease market.

We have evidence to state that some tenants, even in the past, were drawn from better-off sections and tenancy laws, as they were ill-equipped to deal with such situations, favoured them. Consider the much acclaimed land-to-the-tiller policy of Kerala (which came into force on 1 January, 1970 and the provisions of which had been implemented in the next ten years). It made no distinction between those who only supervised cultivation (ostensibly, the well-off tenants) and those who contributed their own and their family members' labour in cultivation while identifying the true tillers of land and the right of purchase of ownership rights was conferred to all. As a consequence, the benefits of the reform accrued to the upper strata of tenants operating their holdings with hired labour (Herring, 1983, 183; Raj and Tarakan, 1984, 46; Haque and Sirohi, 1986, 55). Again, in West Bengal,

another State which has always been in the forefront of land reforms, the middle peasants were reported to have got disproportionate benefits in tenancy reforms under 'Operation Barga' campaign initiated in 1978 (Ghose, 1984, 120).

Even in the general course a big lessee leasing-in land from a petty lessor could, by virtue of his greater bargaining strength, ensure that the terms and conditions governing lease agreements are favourable to him. The study by Bharadwaj and Das (1975, 221-40) in eleven villages of Orissa and the work of Vyas (1970) in Gujarat bear testimony to this. And, if tenancy laws protect such a tenant, he could use his privileged position to cause hardship to his petty landlord. In such a case, the laws, contrary to their stated objective of promoting equity, might as well aid inequity. Operating from a position of vantage the big tenant of an institutional lessor could work to undermine the interests of the lessor.

Since land ceiling laws are more often evaded than abided, the size distribution of ownership holdings is highly concentrated. Little can be done about it in the existing social, economic, political and juridical set up (Joshi, 1974; Parthasarathy and Rao, 1969). However, if tenancy laws can restrict the entry into the lease market only to petty peasants the size distribution of operational holdings can be made much less concentrated than that of ownership holdings. In a way, the institution of tenancy gains legitimacy for this reason. An open and regulated tenancy is propagated on the assumption that it would make some of the petty peasants to advance on the agricultural ladder (Vyas, 1970). But Raj (1970, 2) in his seminal and pioneering work based on the NSS data of 1954-55 points out that tenancy laws did not quite serve the purpose and therefore the size distribution of operational holdings differed only by a limited degree from that of land ownership because of the practice of leasing-in by large tenants. There are several later day studies, based both on secondary and primary data that go to show that better-off sections among the peasantry have gained access to the lease market and as a result the very purpose of tenancy laws is getting distorted.

Thus, for instance Bardhan (1976, 1543-44) based on the NSS data of 1960-61 and 1970-71 states that there was distinct shift away from the smaller tenants leading to a concentration of tenancy. He cites the Punjab situation in particular. Laxminarayan and Tyagi (1977, A77) on an examination again of the same set of data reach the conclusion that more land area was leased-

in by large land holders (cultivators operating 4.05 hectares or more of land) than small ones. Vyas (1970) in Gujarat, Bandopadhyay (1975) for West Bengal, Gill (1989, A79-85) from the census data of 1970-71 and 1980-81 for the Punjab, Nadkarni (1976, A137-45) based on a census survey of six villages of Maharashtra and Singh (1989) again from field data pertaining to the Punjab, Rao (1992), and Haque and Parthasarathy (1992) all reach the conclusion that large tenants have emerged in the lease market, specially in regions characterized by agricultural progress, commercialization of agriculture, and farm mechanization and what is more, they are displacing the smaller cultivators.

Analyzing the inter-temporal NSS data of 1960-61 (17th round), 1970-71 (26th round), 1981-82 (37th round) and 1991-92 (48th round) pertaining to the significance of large tenants, the 48th round NSS report on operational holdings (GoI, 1997, 29-30) notes that there has been a rise in the percentage of holdings and area under tenancy, particularly in the 'large' size category (with operated land in excess of 10 hectares) in 1991-92, breaking the downward trend between 1960-61 and 1981-82. It is all the more intriguing that "the inverse relationship which had prevailed between the size of holding and the percentage of leased-in area (to total operated area) for two decades since 1960-61 seems to have disappeared with the large holdings reporting the highest proportion (11.4%) of leased-in operated area in 1991-92."

Thus the some what isolated incidents of the big cultivators leasing-in observed in the past in different parts of the country assumed sizeable proportions now (by 1991-92, the latest year for which data on landholdings is available from NSS) as to get manifested in the aggregate data pertaining to all India. This could either be because of the spread of the practice to many States, intensification in the States where it has been prevalent before or both. As noted, the increase in the significance of large farmers in the lease market is a disquieting development because:

- Taking advantage of tenancy laws the farmers can see that ownership and occupancy rights on tenanted lands under their control are conferred on them.
- They can take advantage of the laws and cause hardship to petty lessors and, in particular, to institutional lessors and undermine their interests.
- They can displace petty peasants from the lease market.

- They can expose poor tenants to a process of self-exploitation by vying with them for land in the lease market.

Raj (1970, 2) and, keeping the conditions obtaining in the Punjab (including Haryana) in mind, Bardhan (1976, 1543-44) and later Singh (1989, A87) make the point that the capacity of the landless or the small owner to lease-in land is greatly reduced in an environment characterized by increased costliness and credit-intensity of new agricultural technology dependent on privately controlled irrigation, purchased inputs, in the context of a highly imperfect credit market. The changed environment is noted to make available more land for lease to cultivators with the capacity to acquire costly inputs. But mere supply of more land for lease need not get translated into demand if those capable of taking it on lease have no desire for it. However, demand is emerging from the bigger farmers. Those who are desirous of expanding their size of holdings through purchase of land but are unable to do so following land ceiling legislation, are satiating their demand by taking land on lease (Vyas, 1970). And better-off cultivators are inclined to lease-in land because the increase in the unit of cultivation made possible by leasing-in of land enables the farmers to more adequately utilize their modern technical inputs. That is, the big farmers lease-in to optimize the use of capital resources (Singh, 1989, A86-88; Nadkarni, 1976, A144; Bliss and Stern, 1982). Meanwhile, those migrating to urban centres prefer to lease-out to farmers with significant means as they would be better able to take proper care of their lands and pay rents promptly (Vyas, 1970).

2. Objectives

Thus, the questions raised and analysed in the literature on large tenants are: (1) Why do larger farmers wish to enter the lease market or why do they demand tenanted land? Agricultural progress, commercialization of agriculture and farm mechanization are noted to explain the phenomenon. (2) Why do petty peasants give up leased-in land under their control or where does the supply of tenanted land emerge from? The high cost of cultivation is seen as the factor making poor tenants to opt out of the lease market. The objectives of the present study are shaped by the relative neglect of the treatment of four important issues in the literature on large tenants. The study seeks:

1. To provide an answer to the question as to how large farmers get

ascendancy over their rivals in the lease market?

2. To examine whether large farmers edge-out the poorest of the poor marginal farmers on their entry into the lease market.

3. To test the hypothesis that high cost of cultivation dislodges marginal farmers from the lease market and the resultant increase in the supply of land for lease enables large farmers to gain greater hold over the market.

4. To empirically answer the basic question as to why large farmers enter the lease market?

3. Methodology

The study is based on the NSS data on operational holdings corresponding to the years 1981-82 (37th round) and 1991-92 (48th round). The data of 1981-82 is accessed from 'Sarvekshana' (GoI, 1988) and that corresponding to 1991-92 is drawn from the NSS Report No. 407 (GoI, 1997). Admittedly, the problem of under estimation plagues the two important secondary data sources on tenancy, viz., Agricultural Census and NSS. Of the two, NSS is by far the more reliable and therefore we employ the data emerging from this source in the paper. Again, although the definitions of certain terms used in the NSS landholding surveys had changed from time to time, those of the years chosen here, 1981-82 and 1991-92 have not (Estimates of tenanted holdings and area under tenancy for these years could be lower because in rounds prior to 1981-82 "otherwise possessed" land was not shown separately, and therefore part of this land might have got included in the leased-in land in earlier rounds).

Data of only 15 major states is used in the study, barring in the regression exercises and in the analysis relating to cost of cultivation. West Bengal is omitted from regression exercises (used to explain the inter-State variations in the incidence of tenancy among large tenants) because tenancy reforms in the State under Operation Barga spilled into the 1980s, the period of our study, and effectively curbed the emergence of large tenants there. Next, as estimates of cost of cultivation are not available for Kerala, because plantations and orchards account for 58.5% of operated land in the State, it gets ignored in the related analysis.

The decade of 1980s, the period under study, assumes importance in that it is during this phase that technological developments in the form of HYV seeds, chemical fertilizers and pesticides have become highly popular as to cause agricultural growth in the country to reach a record 3.5% per annum on an average. The period 1981-82 to 1991-92 was also marked by the absence of fresh initiatives to enforce tenancy laws, except in West Bengal, where the Operation Barga programme was started in late 1970s and which continued, though with much less vigour (following the directive from the High Court that involving the party cadres in registering tenants should be stopped) into the 1980s. The furor created by a spate of revisions to the laws in the early 1970s following the need for urgently revising the land reform laws voiced by the Task Force on Agrarian Relations (PC, 1973) might have been responsible, at least in part, for the decline in tenancy between 1970-71 and 1981-82. But as years rolled by and as people began to realize that the laws would not be enforced and important provisions contained in them would forever remain in the book, the lease market became active again. This might have caused some increase in the incidence of tenancy between 1981-82 and 1991-92. But this does not explain the increase in the incidence of tenancy among large farmers.

The main focus of the study is on 'large' tenants. The appropriate first step, therefore, is concerning the definition of the 'large' tenant. There are two issues here. First, are we to define 'large' tenant based on the size of his owned area or operated area? In the literature on tenancy one finds scholars taking both the sides. Parthasarathy (1991, A31) defines the size of the tenant based on his owned area and finds that the lease market was generally characterised by petty peasants and the phenomenon of large landowners taking land on lease was only an aberration. His approach to the NSS 1981-82 data on ownership holdings shows that of the total tenanted holdings the landless, marginal and small farmers accounted for 91.56% and of the total tenanted area that under the control of these farmers formed 70.59%. Those owning 10.13 ha. and above were no more than 0.30% among those leasing-in land and their share in tenanted area was 2.78% (Table - 1). Contrarily, there is the claim that the economic status of a tenant would be better reflected by his wealth position and since the wealth status is difficult to arrive at even in micro-level studies, the land operated by him could be employed in its stead.

Consider, for example, the extreme case of prospective tenants with no land of their own. On entry into the lease market it is not necessary that all of them lease-in an equal extent of land. Some will lease-in more, while others less. No doubt, to an extent, those who lease-in more can do so only because they allow themselves to be exploited more by their landlords - they may be obliged to pay higher rent than the usual. But is it also not true that they lease-in more because they have greater capacity to lease-in by virtue of their access to more non-land resources, such as credit, cattle, farm machinery etc.? Those opting to take more land on lease must obviously be having a greater access to credit may be because they are in a position to pledge gold, hypothecate a house etc., to secure loans. They may also be in a position to invest the surpluses accruing to them from other ventures, in the cultivation of tenanted land. The better the wealth position of a tenant, the more will be the land he will lease-in (supposing that the capacity to lease-in is backed up by the desire to do so). The same logic can extended even to tenants with some owned land. Tenants with equal extent of owned land will not all have equal capacity to lease-in. Thus leasing-in of land will also be dictated by the non-land assets owned by the farmer. Bharadwaj and Das (1975, 222), Raj (1970, Tables - 2, 3 and 4) and Bardhan (1970, Table - 2) among others have used operational holding to classify tenants as belonging to small or large size-class.

If we define, as we do in this paper, the economic status of tenants on the basis of the operational holding of tenants, the share of the near landless, marginal and small farmers in total tenanted holdings, as in 1981-82, was 75.58% while their share in the tenanted area was merely 35.12% (Table - 1). The operational holdings with land 10.13 ha. and above constituted 1.44% of those leasing-in and their share in leased-in area was 13.46% (Table - 1). These observations are quite in contrast to the ones drawn from the classification of tenants based on household ownership holding. From the above we can see that the conclusion one reaches on the quantitative significance of large tenants will depend upon the yardstick one adopts to assess the size-class of tenants. And, obviously, this will have a bearing on policy. If the extent of leased-in land under the control of large tenants is limited, there is no case for intervening in the lease market for the express purpose of getting rid of the tenants from the market.

The second issue is that the problem does not end with the choice of the yardstick against which we classify a tenant as belonging to a low or a high

economic status. We still have to decide on the extent of land a tenant should operate for him to be called a better-off tenant. What all we can say is that the better-off tenant should 'operate' a 'sizeable' extent of land. The term 'sizeable' defies clear definition and in this paper we mainly highlight the incidence of tenancy among tenants operating more than 10.00 ha. of land. Following the accepted practice in NSS publications, these tenants are referred to here as tenants of large category.

We have to contend with changes in the class-intervals between the NSS data of 1991-92 and 1981-82. For instance, the 'large' size category of 1991-92 envelops those operating 10.01 ha. and above, whereas in 1981-82 (and earlier) the cultivators of 'large' size are defined as those having operational holdings 10.13 ha. or more. There is no longer any attempt to make the size categories defined in hectares in 1991-92 to correspond to those defined in acres in earlier surveys. In our tabulations we ignore these differences and make no adjustments to the data. Mention may however be made that the 'marginal' operational holdings have been defined in both 1981-82 and 1991-92 in the same way.

State-wise estimates of weighted average cost of cultivation per hectare are arrived at for the years 1981-82 and 1991-92 using the data available in 'Cost of Cultivation of Principle Crops' (GoI, 1991, 2000). It may be noted that cost estimates are not always reported for these years in respect of all crops. Where they are not, we have expressed the available estimates at 1981-82 and 1991-92 prices. Again, estimates of costs are not available for all the crops grown in a State, the cost estimates are not comprehensive. The area under the crops for which data on costs is available is never 100% (for the year 1991-92 the coverage ranges between 83.54% in UP and 49.73% in Karnataka, whereas for the year 1981-82 it ranges between 82.94% in MP and 48.54% in Maharashtra) and, because area under the crops is used as weights to arrive at the cost of cultivation in a State, the cost estimates are far from comprehensive. Estimates of costs are available for different definitions of cost. We have considered cost A2 here (It basically includes all the paid-out costs of the cultivator including the rent paid for leased-in land besides the values of owned bullock and machine labour, farm produced seed and owned manure and depreciation on implements and farm buildings).

There are alternative ways of looking at the quantitative significance of large tenants from the data on operational holdings. These are:

1) *Percentage of operational holdings leasing-in from among large farmers.*

2) *Percentage of operated area leased-in by large farmers.*

3) *Percentage share of large farmers in total holdings leasing-in.*

4) *Percentage share of large farmers in total leased-in area.*

Variables 1 and 3 pertaining to the significance of tenanted holdings of large category could yield divergent figures if, for instance, an increase in the tenanted holdings is counter balanced by an increase in operational holdings having no tenanted area. The same logic applies to the variables 2 and 4 pertaining to tenanted area of large tenants. They could lead to opposite conclusions as well.

4. Changes in Holdings Leasing-in and Area leased-in Among Large Farmers

At the all India level, the proportion of operational holdings reporting leasing-in fell, substantially at that, from 15.20% to 10.99% between 1981-82 and 1991-92. The fall could be observed in respect of all size categories of holdings except in the large one, where the proportion increased from 11.6% to 16.7%. The increase in their proportion at the national level is the result of similar increase in 8 of the 15 major States. The practice of large farmers looking to lease-in land spread to MP, Rajasthan, UP and AP. Earlier on the significance of the farmers was low in these States. Also, the practice got intensified in Assam, Haryana, Kerala and Punjab. In the States of Karnataka, Maharashtra and TN the practice seems to be on the decline, but still important. The total absence of large tenants that one notices in West Bengal should be attributed more to the Operation Barga programme than to any other factor. As in 1991-92, the large farmers leasing-in land formed a very high percentage in Haryana, 82.2%, and Assam, 78.7% (Table - 2).

The values of the correlation coefficient, a summary measure indicating the statistical relationship between the size of operational holding (the mid-points of class-intervals are taken to represent the size) and the percentage of operational holdings under tenancy, are worked out both for 1981-82 and

1991-92 for the individual States to see if there is a systematic relationship between the two variables in question. The value of the coefficient in 1981-82 was negative and significant for all India. But by 1991-92 it turned positive, although not significant. The relationship between size and operational holdings leasing-in turned positive and significant in 5 states by 1991-92 while none existed in them earlier in 1981-82. The States are Assam, Haryana, Kerala, Maharashtra, and Rajasthan. In Punjab, the relationship has all along been positive and significant. These are the States where the incidence of tenancy is increasing with increase in the size of operational holding. In Andhra Pradesh, Madhya Pradesh, Tamil Nadu, and Uttar Pradesh, although the relationship between size and the percentage of holdings under tenancy was not systematic to be significant, there has been an increase in large tenants here over time (Table - 3).

All classes combined, leased-in area's significance in operated area increased over time, from 7.2% in 1981-82 to 8.3% in 1991-92 at the all India level. It was much more so in the case of large farmers where the proportion increased from 5.3% to 11.4%. Considering individual States, we find that the proportion in respect of these farmers increased markedly in Andhra Pradesh, Assam, Haryana, Kerala and Punjab. As in 1991-92, the percentage of operated area leased-in by large farmers was very high in Haryana, 70.5%, Assam, 65.1%, and Kerala, 50.6% (Table - 4).

Does the operated area under tenancy increase with increase in size? And how important is this relationship in the two years under study? The negative and statistically significant correlation that existed at the all India level in 1981-82 between the variables in question vanished by 1991-92. This is the outcome of changes taking place at least in 5 States, viz., Assam, Haryana, Kerala, Maharashtra and Punjab. In all these States the once non-existent relationship or even a negative one (as in Haryana) in 1981-82 turned positive and significant by 1991-92 (Table - 3).

5. Changes in the Shares of Large Farmers in Tenanted Holdings and Tenanted Area

The share of farmers of the large category in tenanted holdings increased during the decade of the 1980s from 1.4% to 2.0% at the all India level. At the level of individual States, the share of the tenants increased in 7 of the 15 States. The increase was remarkably high in Haryana, with the share

increasing from 4.0% in 1981-82 to 19.0% in 1991-92. The increase in the share of large farmers in tenanted holdings cannot but be low because unemployment or underemployment forces many poor peasants to vie for land in the lease market. These peasants yearn to acquire even a toe hold of land and with it hope to climb up the agrarian ladder (Table - 5). But more important than the increase in the large farmers' share in tenanted holdings is the increase in their share in tenanted area. Their share in the area increased from 13.5% to 20.9% between the two points of time. Their share recorded an increase in as many as 9 of the 15 States. The share of large farmers was as high as 64.7% in Haryana. It was closely followed by Rajasthan, where the share was 45.2% (Table - 6).

Employing the distributions of tenanted holdings and tenanted area the gini-coefficient of concentration of tenanted area is calculated. At the all India level the coefficient declined during the decade of 1980s. There are, however, 4 States where the coefficient recorded an increase. The States are Assam, Haryana, Karnataka and Maharashtra (Table - 7).

6. How Do Large Tenants Edge-out Their Competitors?

Analysis of the State level data brings out the fact that in the States of Andhra Pradesh, Assam, Haryana, Karnataka, Kerala, Maharashtra, Punjab, Rajasthan and to a lesser extent in Madhya Pradesh, Uttar Pradesh, and Tamil Nadu large tenants have become a force to reckon with. How do the large farmers edge out those who compete with them in the land lease market? It appears that these farmers appeal to the need of the lessors for secure rental receipts by offering them fixed money, invariably in the beginning of the season, in return for lease of land. Petty peasants being less able to do so will lose out to large farmers in the competition for tenanted land. The NSS data unambiguously shows that in almost all the States where there was an increase in the dominance of large tenants during the decade of 1980s there was also an increase in the significance of land leased-in by the tenants under fixed cash terms.

Consider these figures. At the all India level, during the decade of 1980s while the proportion of operational holdings leasing-in among large farmers increased from 11.6% to 16.7%, the holdings leased-in by these farmers for fixed money as a proportion of holdings leased-in under all terms increased from 18.99% to 47.54%. The increase in the proportion of operated area

leased-in by large farmers from 5.3% to 11.4% was again accompanied by an increase in the proportion of area leased-in for fixed money, as against fixed kind, share produce etc., from 11.26% to 35.49%. Likewise, as the share of large farmers in leased-in holdings increased from 1.4% to 2.0% the corresponding figure for them in the total land leased for fixed cash rose from 2.46% to 4.10%. Finally, while the share of farmers of large category in leased-in area shot up from 13.5% to 20.9% between 1981-82 and 1991-92, the share of the farmers in the area leased-in for fixed cash increased from 13.95% to 39.06% (Table - 8).

7. Are Marginal Farmers Affected by the Entry of Large Farmers in the Lease Market?

We may raise here another related question that has a bearing on the equity issue. Are the farmers of marginal category (those with less than 1.01 hectares of operational holding) divested of tenanted holdings/tenanted area because of the increasing significance of large farmers in the lease market? If this indeed is the development, it should be condoned in order that the spirit of the tenancy laws is upheld. The proportion of holdings under tenancy with marginal farmers declined from 14.4% in 1981-82 to 9.3% in1991-92 (Table - 2). The proportion of area under tenancy with the farmers also declined, though marginally, from 9.7% to 8.7% during the period (Table - 4). The shares of the farmers increased both in tenanted holdings and tenanted area. While the former increased from 52.9% to 53.2% the latter rose from 15.6% to 16.3% (Tables - 5 & 6). Thus, at the all India level, even as holdings and area under tenancy with marginal farmers declined, the shares of the farmers in tenanted holdings and area remained more or less the same.

A cross-classification of States is attempted based on the observed changes in the magnitude of large and marginal tenants during the period under study. There are four ways of looking at the relative importance of the two categories of tenants in line with the four tenancy variables we are working with. Correspondingly we have four tables. Along the rows we show the increase or decrease (including no change) in the significance of large tenants, and in the columns we show the increase or decrease in the importance of marginal tenants. Should the entry of large farmers into the lease market displace marginal farmers, the observations/States should find their way into the top right hand corner of the tables (Tables - 9 to 12). We notice that Haryana was by far in the most undesirable position. Here there was not

only an increase in the incidence of tenancy among farmers of large category, but it was also accompanied by a decrease in the incidence of tenancy among farmers of marginal category. Holdings under tenancy with the marginal farmers declined in AP, Assam, Kerala, UP and Punjab besides Haryana, while the holdings under tenancy with large farmers increased (Table - 9). In Madhya Pradesh, and Rajasthan both categories of tenants were found to have grown in importance (Tables - 9 to 12).

The percentage of holdings and area under tenancy with large farmers and those with marginal farmers bear no relationship in the cross-section data of 1991-92. The correlation between the large farmers' share in tenanted holdings and the marginal farmers' share is found to be negative and sizeable (-0.70) in 1991-92 data. The corresponding correlation when the share of tenanted area is also negative and sizeable (-0.63) (Table - 13).

Over all, the increasing dominance of large tenants does not appear to be at the expense of the poorest of the poor marginal tenants. Although marginal tenants got dislodged in some states consequent upon an increase in the importance of large tenants between 1981-82 and 1991-92, there are also states where both classes of tenants secured a greater hold on the lease market. But it should not come as a great relief, for it is possible that marginal tenants are now obliged to pay higher rents than earlier in trying to stay in competition with large tenants.

8. Does the Cost of Cultivation Influence the Leasing Behaviour of Marginal Farmers?

It is hypothesized that costliness of new technology compels marginal farmers to voluntarily opt out of the lease market and the resultant increase in the supply of land for lease enables large farmers to gain greater hold over the market. To view the likely changes in the real cost of cultivation between 1981-82 and 1991-92 we have adjusted the cost estimates using the general consumer price index of agricultural labourers. Then, a cross-classification of States is attempted based on changes in the real cost of cultivation and in the significance of marginal farmers (Tables - 14 to 17). Only 13 States are considered here, West Bengal and Kerala being the omitted ones. If we consider holdings under tenancy with marginal farmers, it is in the States of AP, Assam, Bihar, Haryana, and Orissa that the increase in the cost occurred at the same time when there is a decline in the proportion

of marginal farmers (Table - 14). Consideration of area under tenancy shows that in States of AP, Assam, and Haryana, the proportion of leased-in operated area of marginal farmers decreased when the cost increased (Table - 15). Working with shares of marginal farmers in tenanted holdings and in area we find that only in Haryana an increase in cost was associated with a decline in the significance of marginal farmers (Tables - 16 & 17).

For the hypothesis to be valid an increase in the cost should be accompanied by a decrease in marginal tenants and a simultaneous increase in large tenants. In order to see whether the changes of the type are taking place, we juxtaposed the above results against the results obtained from the cross-classification of States based on relative changes in the incidence of tenancy among large and marginal farmers (Tables - 2 & 4 and 5 & 6). We notice that there is only one State, Haryana, where this happened, irrespective of the way we define the significance of the tenants. AP and Assam show similar features, but only in two of the four definitions of the tenants' significance. The cost factor is found to be largely unimportant in influencing the leasing behaviour of marginal farmers even in the cross-section data of 1991-92 (Table - 18). It, therefore, appears that at least the marginal tenants do not seem to be opting out of the lease market on their own because of the cost factor. The hypothesis is invalidated.

9. Why Do Large Farmers Enter the Lease Market?

Employing the NSS data of 1991-92 we seek here to examine if the factors generally contended to give raise to the emergence of large tenants do in fact capture the inter-State variations in their significance using a multiple and a simple regression model, both of linear form. Three aspects are relevant in this context: Number of observations, alternative definitions of the dependent variable-significance of large tenants, number and definitions of independent variables. As regards the first, the number of observations, we have decided to leave out West Bengal from the data of 15 major States we are working with so far, for the reason that, following the launching of Operation Barga programme and its continuation into the 1980s, large tenants became extinct in the State (whether they emerge in future, as they have in Kerala even after the implementation of land-to-the-tiller policy is anybody's guess). The dependent variable is defined in the same ways as we have along been doing in the study: Percentage of operational holdings leasing-in from among the large farmers, percentage of operated area leased-in by large farmers, percentage share of large farmers in tenanted holdings

and percentage share of large farmers in tenanted area.

The independent variables, as they emerge from the survey of literature presented above, are farm mechanization, commercialization of agriculture, and agricultural development. It is pointed out that as agriculture becomes more and more mechanized with associated use of tractors, pump sets, oil engines, harvester combines and the like, there would be a need to put the machines to optimum use. In order to do so, leasing-in of land might become necessary for the farmers possessing these capital assets. The more the capital assets the greater might be the need to lease-in especially when the possibility to expand one's holding trough purchase of land exhausts. Therefore, we expect the significance of large tenants to be more in States where agricultural mechanization has taken deep roots. The regression exercises should yield a positive coefficient to this variable. We have defined this variable in two alternative ways: Number of tractors per lakh hectares of gross cropped area (1991-92; CMIE, 1999) and average wage rate (1991-92; GoI, 1992) of male agricultural labour (ploughmen or field labour in agriculture). The understanding in using the 'wage rate' is that when it is high it will favour farm mechanization and with it the operation of large holdings. In any case the correlation between the 'number of tractors' and 'wage rate' is found to be quite high at 0.70.

Where agriculture is highly commercialized, that is where what is produced on the farm is mainly for the market and where the outlets for marketing the surplus produce are abundant, large farmers may be prompted to enter the lease market and carry out production along capitalist lines (with hired labour, with intensive use of high yielding inputs and with the main aim of selling the surplus produce in the market). The variable is expected to appear with a positive sign in the regressions. We have employed two variables to capture the degree of commercialization in the States: Percentage of area under non-food crops to total cropped area and number of wholesale assembling markets per one crore worth of agricultural output of major crops. The choice of the variable 'area under non-food crops', though employed in two of the regressions, is not quite justifiable for the reason that, for instance in Punjab the share of area under the crops is no more than 24.8%, yet it is common knowledge that the State is among the most commercialized regions of the country. In the ultimate analysis the variable commercialization of agriculture is dropped from the final forms of the regression model as it is found, given the way it is defined here, to be not only not significant but

generally yielded a t - value less than 1.00 (Gujarati, 1988, 227).

In agriculturally developed regions large farmers were noted to be predominant in the literature. The promise of better returns should normally egg any cultivator to lease-in land in such regions. The more rewarding the cultivation, the more could be the land taken on lease. Even large farmers might do so if there are no diseconomies of scale. When agricultural progress of a State is used as an explanatory variable in our regressions, it should yield a positive coefficient. In our regression exercises we sought to work with average gross state domestic product originating in agriculture per hectare for the triennium ending 1992 (EPWRF, 1998).

We present the results of two regression models - one a linear multiple one (Set I, Table - 19) and the other a simple linear model (Set II, Table - 20). The first set seeks to explain the variations in the 4 alternative forms of the dependent variable, the incidence of tenancy among the farmers of large size category, using 'GSDP' and 'number of tractors' as the explanatory variables. The second set employs 'wage rate' as the only explanatory variable. It is not combined with any other variable like, for instance, 'per hectare GSDP' or 'per hectare value of output' for reasons of multicollinearity. One general point is that both the regression models, in all their forms, as seen from the values of F, are good fits to the data and therefore the results assume importance.

The results of the regression model with the explanatory variables 'average per hectare GSDP from agriculture' representing agricultural development and 'number of tractors per lakh hectares' indicating degree of mechanization of farming operations (Set I, Table - 19) shows that agricultural development has a positive and significant influence on the percentage of operational holdings and area leased-in by large farmers. However, its influence on the share of large farmers in tenanted holdings and area is not significant. On the other hand, mechanization has a positive and statistically significant influence on the share of large farmers in tenanted holdings and area even though its influence on the percentage of operational holdings and area leased-in by large farmers is not significant.

As a next step, we worked with the simple linear regression model taking the 'wage rate' as the explanatory variable (Set II, Table - 20). There is an important commonality in the results -- the variable turned out to be positive

and statistically significant. This goes to suggest that large farmers, when faced with a situation of high wages for labour, obligingly mechanize their farm operations and in the process find it necessary to operate larger holdings than they own.

Thus wage rate (and a little less assuredly tractorization) is the all important factor explaining the inter-State variations in the magnitude of large tenants. Higher the wage rate, higher is the large tenants' control over the lease market. Farmers who are constrained to increase their ownership holdings because of land ceiling laws are making their way into the lease market for agricultural land (Table - 21). Between 1981-82 and 1991-92, the average area owned by large farmers recorded a decline from 15.87 ha. to 15.29 ha. indicating that there are limits to expanding the ownership holding. But, may be with the demands to put the capital assets to optimum use mounting, the farmers are found leasing-in more on an average in the later year than in the former. The average leased-in area which was 0.85 ha. in 1981-82 more than doubled to 1.75 ha. by 1991-92 (Table - 21).

10. Conclusions

The entry of large farmers into the lease market may further capitalist development in the agricultural sector. But in the process numerous prospective tenants from the poorer sections can get distanced from the lease market. The institution of land tenancy which derives its legitimacy on the ground that it would help poor peasants to gain access to tenanted land and thereby would fulfill their hope of advancing on the agrarian ladder will be of no avail. It can also give raise to a situation where, petty tenants, in trying to compete with large tenants for tenanted land will end up paying higher rents than usual to their landlords. Besides, sooner or later, the process can have dampening effect on real wages of agricultural labour and can stunt the growth of rural employment.

Therefore, it seems important to make tenancy laws sufficiently stringent to restrict the entry into the lease market only to petty peasants. The quantitative significance of the incidence of tenancy among large farmers is high enough, though in a relative context, to enact and enforce such exacting laws. The surplus land distributed in the country up to September, 1991 was 19.48 lakh hectares while the tenanted land under the control of large farmers (with operated land in excess of 10 hectares) as of 1991-92 was 21.63 lakh

hectares. Apart from the land leased-in by this class of farmers there is also the land which was leased-in by other relatively higher classes of farmers. And what is more, even the NSS estimates of land under lease, though are on a far higher side compared to the leased-in land as per Agricultural Census, are admittedly underestimates themselves (Sawant, 1991; Sanyal, 1977). By preventing large farmers from entering into the lease market, it should be possible to bring down inequity in the distribution of operated land, an objective which is sought to be achieved by allowing tenancy in principle. Such a step is also desirable in the interest of wages and employment in the agricultural sector. Also, as a means to increase the access of land to the rural poor, the policy of barring large tenants from the lease market assumes importance, in view of the closing-in of the possibilities to acquire and distribute land accruing on account of ceiling laws. With the near exhaustion of the waste land available for distribution, this is one means by which the land hunger of the poor can be satisfied to some extent.

In sum, it is necessary to rid the large tenant of the lease market in the interest of the poor peasant, who yearns to lease-in a piece of land. The notion that the petty peasant is finding it difficult to lease-in land because of costliness of new technology seems unfounded. The peasant is not opting out of the lease market, rather the large farmer is forcing him to withdraw from the market by appealing to the need of his lessor for secure rental receipts and by paying him rent in fixed cash. It is in the interest of the large farmer to drive out the petty cultivator from the lease market and thereby gain control over it because mechanization of farming operations, in the context of high wages, is making heavy demands on him to expand the size of his operational holding. With the scope to enlarge the ownership holding having decreased, more because of the deterrent effect of the land ceiling laws, the large farmer has no option but to lease-in land to expand the size of holding to put his capital assets to optimum use. Large farmers may contribute to capitalist development in agriculture. But development of capitalist relations may lead to proletarianisation of large sections of the rural working classes.

Table - 1

Percentage Distribution of Tenanted Holdings and Area by Size-class of Owned and Operated Area of Tenants:1981-82

Broad size category (ha.)	P. C. distribution based on HH. ownership holdings		P. C. distribution based on HH. operational holdings	
	Number	Area	Number	Area
Marginal (less than 1.01)	81.80	52.68	52.87	15.56
Small (1.01 - 2.02)	9.76	17.91	22.71	19.56
Semi-medium (2.03 - 4.04)	5.66	13.75	14.83	23.86
Medium (4.05 - 10.12)	2.48	12.88	8.15	27.56
Large (10.13 & above)	0.30	2.78	1.44	13.46
All classes	**100.00**	**100.00**	**100.00**	**100.00**

Table - 2

Percentage of Operational Holdings Leasing-in Among Large and Marginal Farmers

State	Large farmers		Marginal farmers		All classes	
	1981-82	1991-92	1981-82	1991-92	1981-82	1991-92
Andhra Pradesh	13.9	22.0	10.8	10.4	13.3	14.1
Assam	20.1	78.7	8.7	7.9	12.4	10.1
Bihar	2.9	0.0	16.7	5.7	18.8	5.6
Gujarat	7.7	1.2	7.3	3.0	4.9	3.7
Haryana	30.4	82.2	9.2	4.5	25.6	17.1
Karnataka	14.4	10.2	5.7	5.5	10.4	8.0
Kerala	31.6	60.3	6.5	4.9	6.3	5.2
Madhya Pradesh	3.4	10.9	5.4	6.7	7.6	9.0
Maharashtra	14.2	12.1	11.6	5.6	10.3	6.9
Orissa	11.3	4.6	15.3	14.2	17.4	16.4
Punjab	42.3	47.6	10.6	7.3	20.1	15.9
Rajasthan	6.2	10.2	5.0	5.6	6.8	6.5
Tamil Nadu	25.6	16.3	23.9	14.1	22.8	15.3
Uttar Pradesh	9.6	20.5	17.3	12.6	20.1	15.5
West Bengal	43.5	0.0	21.8	13.3	21.8	14.4
All India	**11.6**	**16.7**	**14.4**	**9.3**	**15.2**	**11.0**

Table - 3
Correlation Between Size and (1) P. C. of Holdings Leasing-in and (2) P. C. of Area Leased-in

State	Size Vs P. C. of holdings leasing-in		Size Vs P. C. of area leased-in	
	1981-82	1991-92	1981-82	1991-92
Andhra Pradesh	-0.11	0.46	-0.59	0.21
Assam	-0.13	0.92*	-0.25	0.91*
Bihar	-0.71*	-0.76*	-0.70*	-0.84*
Gujarat	0.71*	-0.44	0.74*	-0.53
Haryana	0.09	0.99*	-0.60*	0.97*
Karnataka	0.38	0.56	0.05	0.42
Kerala	0.19	0.96*	0.21	0.91*
Madhya Pradesh	-0.26	0.36	-0.33	-0.74
Maharashtra	0.30	0.78*	-0.08	0.95*
Orissa	-0.44	-0.66	0.63*	-0.83*
Punjab	0.71*	0.84*	0.11	0.88*
Rajasthan	0.02	0.71*	-0.01	0.37
Tamil Nadu	-0.51*	0.17	-0.62*	-0.64
Uttar Pradesh	-0.53*	0.36	0.32	-0.88*
West Bengal	-0.84*	-0.78*	0.71*	-0.86*
All India	**-0.59***	**0.66**	**-0.51***	**0.56**

Table - 4

Percentage of Operated Area Leased-in By Large and Marginal Farmers

State	Large farmers		Marginal farmers		All classes	
	1981-82	1991-92	1981-82	1991-92	1981-82	1991-92
Andhra Pradesh	3.6	13.6	7.7	10.7	6.2	9.6
Assam	8.0	65.1	5.2	7.0	6.4	8.9
Bihar	0.0	0.0	13.6	6.2	10.3	3.9
Gujarat	3.7	0.2	2.4	2.9	2.0	3.3
Haryana	14.0	70.5	18.6	6.5	18.2	33.7
Karnataka	4.0	7.3	3.7	5.4	6.0	7.4
Kerala	13.8	50.0	2.6	2.1	2.1	2.9
Madhya Pradesh	1.0	3.2	3.1	7.8	3.6	6.3
Maharashtra	4.7	8.3	4.6	3.3	5.2	5.5
Orissa	26.9	0.3	10.0	11.1	9.9	9.5
Punjab	14.9	26.7	10.6	17.3	16.1	18.8
Rajasthan	3.9	6.2	3.4	6.5	4.3	5.2
Tamil Nadu	7.5	8.0	16.7	10.8	10.9	10.9
Uttar Pradesh	9.5	6.7	12.1	11.2	10.2	10.5
West Bengal	64.1	0.0	13.3	13.2	12.3	10.4
All India	**5.3**	**11.4**	**9.7**	**8.7**	**7.2**	**8.3**

Table - 5
Percentage Share of Large and Marginal Farmers in Total Holdings

State	Large farmers		Marginal farmers		All classes	
	1981-82	1991-92	1981-82	1991-92	1981-82	1991-92
Andhra Pradesh	3.1	1.3	39.6	43.8	100	100
Assam	0.2	1.5	42.3	55.3	100	100
Bihar	0.1	0.4	61.3	77.9	100	100
Gujarat	6.2	0.8	58.4	39.4	100	100
Haryana	4.0	19.0	15.1	13.3	100	100
Karnataka	5.0	2.9	21.0	33.9	100	100
Kerala	0.3	0.1	92.5	87.1	100	100
Madhya Pradesh	1.6	3.0	23.2	28.7	100	100
Maharashtra	7.6	5.3	39.7	35.5	100	100
Orissa	0.5	0.1	48.1	52.2	100	100
Punjab	5.2	5.1	31.0	29.2	100	100
Rajasthan	6.7	11.2	22.2	34.0	100	100
Tamil Nadu	0.3	0.3	75.0	70.8	100	100
Uttar Pradesh	0.3	0.4	51.3	55.5	100	100
West Bengal	0.2	0.6	74.3	74.7	100	100
All India	**1.4**	**2.0**	**52.9**	**53.2**	**100**	**100**

Table - 6
Percentage Share of Large and Marginal Farmers in Total Area Leased-in

State	Large farmers		Marginal farmers		All classes	
	1981-82	1991-92	1981-82	1991-92	1981-82	1991-92
Andhra Pradesh	13.2	13.4	12.7	19.6	100	100
Assam	1.7	18.7	18.1	26.9	100	100
Bihar	0.0	0.0	30.7	45.9	100	100
Gujarat	40.3	1.1	7.9	7.4	100	100
Haryana	13.7	64.7	3.8	1.0	100	100
Karnataka	16.1	18.7	3.6	7.0	100	100
Kerala	13.0	6.4	57.8	38.9	100	100
Madhya Pradesh	5.7	8.4	4.1	8.3	100	100
Maharashtra	26.4	30.9	3.2	4.0	100	100
Orissa	33.9	0.1	17.2	25.8	100	100
Punjab	18.2	22.4	2.6	5.7	100	100
Rajasthan	32.8	45.2	2.8	7.0	100	100
Tamil Nadu	3.3	3.7	34.2	28.7	100	100
Uttar Pradesh	6.0	2.7	21.5	26.6	100	100
West Bengal	12.1	0.0	31.4	50.7	100	100
All India	**13.5**	**20.9**	**15.6**	**16.3**	**100**	**100**

Table - 7
Gini-coefficients of Concentration of Leased-in Land

State	1981-82	1991-92
Andhra Pradesh	0.53	0.41
Assam	0.30	0.45
Bihar	0.56	0.43
Gujarat	0.64	0.49
Haryana	0.42	0.54
Karnataka	0.44	0.54
Kerala	0.71	0.65
Madhya Pradesh	0.45	0.41
Maharashtra	0.51	0.55
Orissa	0.50	0.34
Punjab	0.51	0.43
Rajasthan	0.52	0.52
Tamil Nadu	0.68	0.57
Uttar Pradesh	0.51	0.41
West Bengal	0.60	0.35
All India	**0.63**	**0.56**

Table - 8
Increase in the Significance of Fixed Cash Tenancy Among Large Farmers: All India

Incidence of fixed cash tenancy	1981-82	1991-92
P. C. of holdings under fixed cash tenancy to total tenanted holdings	18.99 (11.80)	47.54 (23.23)
P. C. of area under fixed cash tenancy to total tenanted area	11.26 (10.86)	35.49 (18.97)
P. C. share of large tenants in total holdings under fixed cash tenancy	2.46 (100)	4.10 (100)
P. C. share of large tenants in total area under fixed cash tenancy	13.96 (100)	39.06 (100)

Figures in brackets indicate percentages applicable to all tenants

Table - 9

Cross-classification of States Based on Relative Changes in the Incidence of Tenancy among Large vis-à-vis Marginal Farmers: (1) Holdings Reporting Leasing-in

States where p. c. of holdings leasing-in among large farmers	States where p. c. of holdings leasing-in among marginal farmers	
	Increased between 81-82 and 91-92	Decreased between 81-82 and 91-92
Increased between 81-82 and 91-92	MP, Rajasthan	AP, Assam, Haryana, Kerala, UP, Punjab, (All India)
Decreased between 81-82 and 91-92		Bihar, Gujarat, TN, Karnataka, Maharashtra, Orissa, WB

Table - 10

Cross-classification of States Based on Relative Changes in the Incidence of Tenancy among Large vis-à-vis Marginal Farmers: (2) Area Leased-in

States where p. c. of operated area leased-in by large farmers	States where p. c. of holdings leasing-in among marginal farmers	
	Increased between 81-82 and 91-92	Decreased between 81-82 and 91-92
Increased between 81-82 and 91-92	AP, Assam, Karnataka, MP, Punjab, Rajasthan, (All India)	Haryana, Kerala, Maharashtra,TN
Decreased between 81-82 and 91-92	Gujarat, Orissa	Bihar, UP, WB

Table - 11
Cross-classification of States Based on Relative Changes in the Incidence of Tenancy among Large vis-à-vis Marginal Farmers : (3) Shares in Tenanted holdings

States where p. c. share of large farmers in tenanted holdings	States where p. c. share of marginal farmers in tenanted holdings	
	Increased between 81-82 and 91-92	Decreased between 81-82 and 91-92
Increased between 81-82 and 91-92	Assam, Bihar, MP, Rajasthan, UP, WB, (All India)	Haryana,
Decreased between 81-82 and 91-92	AP, Karnataka, Orissa	Gujarat, Kerala, Maharashtra, Punjab, TN

Table - 12
Cross-classification of States Based on Relative Changes in the Incidence of Tenancy among Large vis-à-vis Marginal Farmers: (4) Shares in Tenanted Area

States where p. c. share of large farmers in tenanted area	States where p. c. share of marginal farmers in tenanted holdings	
	Increased between 81-82 and 91-92	Decreased between 81-82 and 91-92
Increased between 81-82 and 91-92	AP, Assam, Karnataka, MP, Maharashtra, Punjab, Rajasthan, (All India)	Haryana, TN
Decreased between 81-82 and 91-92	Bihar, Orissa, UP, WB	Gujarat, Kerala,

Table - 13
Correlation Between the Leasing Behaviour of Large and Marginal Tenants

Correlation between	Correlation coefficient
P. C. of operational holdings reporting leasing-in among large tenants and that among marginal tenants	-0.17
P. C. of operated area leased-in among large tenants and that among marginal tenants	-0.10
P. C. share of large tenants in tenanted holdings and that of marginal tenants	-0.70
P. C. share of large tenants in tenanted area and that of marginal tenants	-0.63

Table - 14
Cross-classification of States Based on Changes in Real Cost of Cultivation and in the Significance of Marginal Farmers:
(1) Holdings Leasing-in

States where real cost of production	States where p. c. holdings leasing-in among marginal farmers	
	Increased between 81-82 and 91-92	Decreased between 81-82 and 91-92
Increased between 81-82 and 91-92	MP, Rajasthan,	AP, Assam, Bihar, Haryana, Orissa
Decreased between 81-82 and 91-92		Gujarat, Karnataka, Punjab, Maharashtra, TN, UP

Table - 15
Cross-classification of States Based on Changes in Real Cost of Cultivation and in the Significance of Marginal Farmers: (2) Area Leased-in

States where real cost of production	States where p. c. of operated area leasing-in among marginal farmers	
	Increased between 81-82 and 91-92	Decreased between 81-82 and 91-92
Increased between 81-82 and 91-92	MP, Orissa, Rajasthan	AP, Assam, Haryana
Decreased between 81-82 and 91-92	Gujarat, Karnataka, Punjab	Bihar, Maharashtra, TN, UP

Table - 16
Cross-classification of States Based on Changes in Real Cost of Cultivation and in the Significance of Marginal Farmers: (3) Shares in Tenanted Holdings

States where real cost of production	States where p. c. share of marginal farmers in tenanted holdings	
	Increased between 81-82 and 91-92	Decreased between 81-82 and 91-92
Increased between 81-82 and 91-92	AP, Assam, Bihar, MP, Orissa, Rajasthan	Haryana
Decreased between 81-82 and 91-92	Karnataka, UP	Gujarat, Maharashtra, Punjab, TN

Table - 17
Cross-classification of States Based on Changes in Real Cost of Cultivation and in the Significance of Marginal Farmers: (4) Shares in Tenanted Area

States where real cost of production	States where p. c. share of marginal farmers in tenanted area	
	Increased between 81-82 and 91-92	Decreased between 81-82 and 91-92
Increased between 81-82 and 91-92	AP, Assam, Bihar, MP, Orissa, Rajasthan	Haryana
Decreased between 81-82 and 91-92	Karnataka, Maharashtra, Punjab, UP	Gujarat, TN

Table - 18
Correlation Between the Leasing Behaviour of Marginal Tenants and Cost of Cultivation

Correlation between cost of cultivation and	Correlation coefficient
P. C. of operational holdings leasing-in among marginal farmers	0.20
P. C. of operated area leased-in by marginal farmers	0.48
P. C. share of marginal farmers in total holdings leasing-in	0.04
P. C. share of marginal farmers in total leased-in area	-0.09

Table - 19

Factors Explaining Inter-State Variations in the Extent of Large Tenants: Results of Multiple Linear Regression: Set - I

Definitions of dependent variable	Intercept	Regression coefficients of		R square [F - value]
		GSDP	No. of tractors	
P. C. of operational holdings leasing-in among large farmers	-26.163 (-1.505)	0.006* (2.747)	0.007 (0.976)	0.521* [5.992]
P. C. of operated area leased-in by large farmers	-25.562 (-1.583)	0.005** (2.577)	0.003 (0.565)	0.455** [4.597]
P. C. share of large farmers in total tenanted holdings	4.173 (1.222)	-0.000 (1.065)	0.004* (3.236)	0.488** [5.242]
P. C. share large farmers in total tenanted area	16.390 (1.203)	-0.001 (-0.654)	0.013** (2.429)	0.351*** [2.979]

Figures in ( ) are t - values.

* Significant at 1% level, ** Significant at 5% level, *** Significant at 10% level

Table - 20

Wage Rate as a Factor Explaining Inter-State Variations in the Extent of Large Tenants: Results of Simple Linear Regression: Set - II

Definitions of dependent variable	Intercept	Regression coefficients of wage rate	R square [F - value]
P. C. of operational holdings leasing-in among large farmers	-32.944*** (-1.947)	2.273* (3.730)	0.537* [13.914]
P. C. of operated area leased-in by large farmers	-30.349*** (-1.949)	1.876* (3.344)	0.482* [11.186]
P. C. share of large farmers in total tenanted holdings	-4.994 (-1.275)	0.329** (2.332)	0.312** [5.437]
P. C. share large farmers in total tenanted area	-13.467 (-0.960)	1.153** (2.292)	0.305** [5.254]

Figures in ( ) are t - values.

* Significant at 1% level, ** Significant at 5% level, *** Significant at 10% level

Table - 21
Details Relating to Large Farmers: All India (Rural)
(>10.00 ha. for 1991-92 and >10.12 for 1981-82)

Sl. No.	Indicators of large farmers' significance	1981-82	1991-92
1	Number holdings (lakhs)	13.45	12.34
2	Number holdings leasing-in (lakhs)	1.56	2.06
3	Area owned (lakh ha.)	213.49	188.67
4	Area leased-in (lakh ha.)	11.46	21.63
5	Area operated (lakh ha.)	215.93	190.23
6	Average area owned (ha.)	15.87	15.29
7	Average leased-in area (ha.)	0.85	1.75
8	Average operated area (ha.)	16.05	15.42
9	P. C. of operational holdings under tenancy	11.60	16.70
10	P. C. of operated area under tenancy	5.31	11.37
11	P. C. share of large farmers in tenanted holdings	1.44	2.01
12	P. C. share of large farmers in tenanted area	13.46	20.88

REFERENCES

AICC (All India Congress Committee) (1949): *Report of the Congress Agrarian Reforms Committee,* New Delhi.

Bandyopadhay, N (1975): 'Changing Forms of Agricultural Enterprise in West Bengal: A Note', *Economic and Political Weekly,* Vol. 10 (17), April 26.

Baradwaj, K and P K Das (1975): 'Tenurial Conditions and Mode of Exploitation: A Study of Some Villages in Orissa', *Economic and Political Weekly,* Vol. 10 (5, 6 & 7), February, and Vol. 10 (25 & 26) June 21-28, Review of Agriculture.

Bardhan, P K (1976): 'Variations in Extent and Forms of Agricultural Tenancy: An Analysis of Indian Data Across Regions and Overtime', *Economic and Political Weekly,* Vol. 11 (37 & 38), September 11 & 18.

Bliss, C J and N H Stern (1982): *Palanpur: The Economy of an Indian Village,* Oxford University Press, Delhi.

CMIE (1999): September.

EPWRF (1998) *National Accounts Statistics of India, 1950-51 to 1996-97,* Third Edition, Mumbai, October.

Ghose A K (1984): 'Agrarian Reform in West Bengal', in A K Ghose (ed), *Agrarian Reform in Contemporary Developing Countries,* Select-Book Service Syndicate, New Delhi.

Gill, S S (1989): 'Changing Land Relations in Punjab and Implications for Land Reforms', *Economic and Political Weekly,* Vol. 24 (25), June 24, Review of Agriculture.

GoI (1987): 'A Note on Some Aspects of Ownership Holdings', *Sarvekshana,* NSS 37th Round, January-December, 1982, Department of Statistics, Ministry of Planning, Vol. 11 (2), Issue No. 33, October.

GoI (1988): 'A Note on Some Aspects of Operational Holdings', *Sarvekshana,* NSS 37th Round, January-December, 1982, Department of Statistics, Ministry of Planning, Vol. 12 (1), Issue No. 36, July.

GoI (1991): *Cost of Cultivation of Principle Crops in India,* Ministry of Agriculture, Department of Agriculture and Cooperation, Directorate of Economics and Statistics.

GoI (1992): *Agricultural Wages in India:* 1991-92, Directorate of Economics and Statistics.

GoI (1997): *Operational Land Holdings in India, 1991-92: Salient Features,* NSS 48th

Round, National Sample Survey Organisation, Report No. 407, Department of Statistics, March.

GoI (2000): *Cost of Cultivation of Principle Crops in India,* Ministry of Agriculture, Department of Agriculture and Cooperation, Directorate of Economics and Statistics.

Gujarati, D N (1988): *Basic Econometrics,* McGraw-Hill International Editions, New York.

Haque, T and A S Sirohi (1986): *Agrarian Reforms and Institutional Changes in India,* Concept Publishing Company, New Delhi.

Haque, T and G Parthasarathy (1992): 'Land Reform and Rural Development: Highlights of a National Seminar', *Economic and Political Weekly,* Vol. 27 (8), February 22.

Herring, R J (1983): *Land to the Tiller: The Political Economy of Agrarian Reform in South Asia,* Oxford University Press, Delhi.

Joshi, P C (1974): 'Land Reform and Agrarian Change in India and Pakisthan Since 1947', *Journal of Peasant Studies,* Vol. 2 (2 & 3),

Laxminarayan, H and S S Tyagi (1977): 'Inter-State Variations in Types of Tenancy', *Economic and Political Weekly,* Vol. 12 (39), September 24, Review of Agriculture.

Murty, C S (1987): 'Influence of Socio-economic Status on Contractual Terms of Tenancy: A Study in Two Delta Villages of Andhra Pradesh', *Economic and Political Weekly,* Vol. 22 (39), September 26, Review of Agriculture.

Nadkarni, M V (1976): 'Tenants from the Dominant Class: A Developing Contradiction in Land Reforms', *Economic and Political Weekly,* Vol. 11 (52), December 25, Review of Agriculture.

Parthasarathy, G (1991): 'Lease Market, Poverty Alleviation and Policy Options', *Economic and Political Weekly,* Vol. 26 (13), March 30.

Parthasarathy, G and B Prasada Rao (1969): *Implementation of Land Reforms in Andhra Pradesh,* Scientific Book Agency, Calcutta.

PC (Planning Commission) (1973): *Report of the Task Force on Agrarian Relations,* New Delhi.

Raj, K N (1970): 'Ownership and Distribution of Land', *Indian Economic Review,* Vol. 5 (1), April.

Raj, K N and M Tarakan (1984): 'Agrarian Reform in Kerala and its Impact on the Rural Economy', in A K Ghose (ed), *Agrarian Reform in Contemporary Developing*

Countries, Select-Book Service Syndicate, New Delhi.

Rao, V M (1992): 'Land Reform Experience: Perspective for Policy and Programme', *Economic and Political Weekly,* Vol. 27 (26), June 27.

Sanyal, S K (1977): 'Trends in Some Characteristics of Landholdings: An Analysis for a Few States', *Sarveskhana,* Vol. 1 (1), July- October.

Sawant, S D (1991): 'Comparative Analysis of Tenancy Statistics: Implications for Concealed Tenancy', *Artha Vijnana,* Vol. 33 (1), March

Singh, I (1989): 'Reverse Tenancy in Punjab Agriculture: Impact of Technological Change', *Economic and Political Weekly,* Vol. 24 (25), June 24, Review of Agriculture.

Vyas, V S (1970): 'Tenancy in a Dynamic Setting', *Economic and Political Weekly,* Vol. 5 (26), June 27, Review of Agriculture.