Relations of Production and Modes of Surplus Extraction in India: Part I – Agriculture

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This paper uses aggregate-level data, as well as case-studies, to trace out the evolution of some key structural features of the Indian economy, relating both to the agricultural and the informal industrial sector. These aggregate trends are used to infer: (a) the dominant relations of production under which the vast majority of the Indian working people labour, and (b) the predominant ways in which the surplus labour of the direct producers is appropriated by the dominant classes. This summary account is meant to inform and link up with ongoing attempts at radically restructuring Indian society. Part I, published this week, covers agriculture, while Part II, to be published next week, inquires into the "informal" industrial sector.

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> Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past.
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> – *The Eighteenth Brumaire of Louis Bonaparte*, Karl Marx.

Assessing the nature and direction of economic development in India is an important theoretical and practical task with profound political and social implications. After all, any serious attempt at a radical restructuring of Indian society, if it is not to fall prey to empty utopianism, will need to base its long-term strategy on the historical trends in the evolution of the material conditions of life of the vast majority of the population. Attempting to build on past debates and as part of ongoing attempts at radical transformation of Indian society, this paper tries to provide a summary account of the evolution of some key structural features of the Indian economy over the last few decades.

In providing this summary account, we connect with and speak to issues thrown up by earlier work on characterising Indian society. The primary, though implicit, reference point for this paper is the "mode of production" debate that occupied scholars and activists in India during the 1970s and 1980s.[1] This paper is an attempt to revisit that debate in the light of new data that has since become available; it is also an attempt to widen the analytical and empirical focus beyond the agricultural sector, the sole concern of the "mode of production" debate. While it is true that agriculture continues to "employ" the vast majority of the working people in India, the last few decades have also witnessed the slow but steady growth of an industrial and services sector. A large part of the working class now constantly shuttles between these sectors, as much as it physically moves between regions and states. Hence it is important to include this growing non-agricultural sector in any analysis of the evolution of the Indian economy, not least because the availability of non-farm employment opportunities has profound implications for the material and social lives of the vast majority of the rural poor.

The principal questions that motivate this study are: what types of production relations does the vast majority of the working population in Indian agriculture and industry labour in? How is economic surplus appropriated from the direct producers? The aim is to understand the material conditions under which the working population labours, the manners in which it is exploited, the relations into which they enter during the process of production, the conflicting interests that arise among economic actors from contradictory locations that they occupy within the web of production relations, and to indicate the possibilities of fruitful political mobilisation that this emerging set of class positions throw up.

This paper combines an analysis of aggregate-level trends as revealed by the successive rounds of the National Sample Survey with micro-level studies (village-level studies for the agrarian sector and industry-level studies for the informal manufacturing sector). While a study of the structural evolution of the Indian economy is of interest in itself, this paper uses trends in the structural evolution to make inferences about the mode of generation, appropriation and use of the surplus product in Indian society.[2] The focus on surplus appropriation, in turn, is motivated by the idea that the *form* of extraction of unpaid surplus labour from the direct producers and the manner of its distribution among the dominant classes provides the key to understanding the structure and evolution of any class-divided society (Marx 1993).

Accepting the centrality of the notion of economic surplus, this study attempts to identify the evolution of the modes of appropriation of surplus labour in India *indirectly* by studying the evolution of key structures of the Indian economy. The underlying assumption of the whole study is that the evolution of the key economic structures, like ownership patterns in the agrarian economy, the evolution of labour forms like tenancy, wage-labour, bonded labour, the size-distribution of firms in the informal sector, the patterns of employment and migration, the importance of merchant and finance capital, etc, can provide useful and reliable information about the mode of surplus extraction. While it is possible to form a picture of the aggregate evolution of the Indian economy using data available from sources like the National Sample Survey Organisation (NSSO), the Agricultural Census, the Census of India – and that is precisely what we do in this study – we are fully aware of the limitations of such aggregate accounts. Many micro-level variations are lost in the aggregate story and so, at every crucial point in the analysis and subject to the availability of data, the aggregate picture is complemented with case studies. It is hoped that the combination of aggregate-level trends with micro-level, often qualitative, evidence will help in forming a comprehensive, historically grounded picture of the political economy of India.

Apart from a concluding section that raises some philosophical and political questions for further discussion, the paper is broadly divided into two parts, one dealing with the agrarian economy and the other with what has come to be called the "informal" industrial sector. This twin focus is motivated by the following considerations. First, the agrarian economy accounts for the largest section of the country's workforce and population. Second, in the non-agrarian economy the majority of the workforce is found in what has been called the "informal" sector. Third, to the extent that an understanding of the relations of production (and forms of surplus extraction) is at issue, most serious scholars and activists would agree that the "formal" sector is characterised by capitalist relations of production. On the other hand, the informal sector is much more complex and thus the focus of our study.

One final caveat is in order. Based largely on NSSO data and to some extent on commissioned studies, the Sengupta Commission reports (NCEUS 2007 and NCEUS 2009) have given a comprehensive picture of the recent trends in informal employment, conditions of work, and regional variations for all three sectors. It is not our intention here to reproduce the same data. Rather we wish to offer some theoretical interpretations based on our as well as the Sengupta Commission's analysis of the NSSO data.

1 Agriculture

Framed in the backdrop of massive mobilisation of the rural poor against intolerable conditions of existence in the late 1960s, expressed politically in the eruption of the Naxalite movement and its brutal suppression by the Indian state, the "mode of production" debate brought together some of the most prominent Marxist social scientists in India in their attempt to characterise the agrarian structure in India. Was it capitalist or was it semi-feudal? What were the main classes in rural society? How should India's relationship with imperialism be factored into the characterisation of Indian society? What kind of revolutionary political strategy followed from the political economic analysis? These were some of the main questions around which the debate was organised.

The time is probably ripe for revisiting this debate, for going back and taking another look at the issues raised and the questions asked. There are at least two reasons for this. First and foremost, we are once again witnessing the mobilisation of the rural poor, this time not only against the continued poverty and misery that has become their lot under the post-colonial Indian state, but also against dispossession by the State and by capital. The numerous peoples' movements, ranging from anti-SEZ (special economic zone) struggles, to movements against displacement and for rights over common property resources to the Maoist movement, are political expressions of this enormous rural churning. This provides a backdrop which is very similar to that provided by the late 1960s in India; this backdrop, this objective reality of peoples' struggles, impels us to once again ask fundamental questions about the structure and dynamics of Indian society. Second, more than two decades have elapsed since the "mode of production" debate ended in the early 1980s; these two and a half decades have seen several changes in the direction of policy of the Indian state, the most notable being the wholesale adoption of the neo-liberal economic framework. Did this policy change impinge on the structure of the Indian economy? If so how? With the passage of time, we also have access to more and possibly better quality data about the Indian economy; this new data can be fruitfully used to empirically evaluate many of the claims thrown up during the "mode of production" debate. It is for all these reasons, and with motivations very similar to those of the participants in the previous debate, that we wish to revisit the mode of production debate, starting with an analysis of the agricultural sector and then moving on to the "informal" industrial sector.

In order to analyse the spatial and temporal patterns of rural class structure we compile all-India data on landholding patterns, landlessness, forms of tenancy, credit, and sources of income and supplement it with state-level data. Further we combine the aggregate data (drawn mostly from NSSO reports and economic censuses) with village-level case studies from several major Indian states.

1.1 Declining Size of Average Holdings

According to the NCEUS (2007), as of January 2005 the total employment (principal plus subsidiary) in the Indian economy was 458 million, of which the informal sector accounted for 395 million

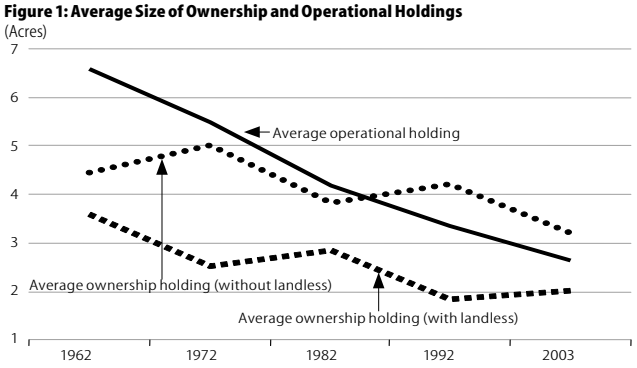
(86%).[3] Of the 395 million unorganised sector workers, agriculture accounted for 253 million (64%) and the rest 142 million were employed in the non-agriculture sector. While the share of value added (gross domestic product, GDP) coming from agriculture has declined sharply from around 39% in 1980 to about 17% in 2007, the share of the total labour force engaged in agricultural activities has displayed a much slower decline from 68% to 57% during the same period. As is well known, this has effectively trapped the largest section of the Indian workforce, for lack of alternative employment opportunities, in a low productivity sphere of production, leading to extremely low incomes and consumption expenditures. The continued reliance of a large majority of the population on agriculture, which adds an ever-declining share to GDP, clearly underlines the failure of any meaningful structural transformation of the Indian economy over the last five decades since political independence. While this picture remains valid in aggregate terms, as we discuss later on, several micro-level studies from all across India in the past 20 years point to a growing importance of non-farm wage labour in the rural economy.

With the majority of the working population in India engaged in agricultural activities, and with land being one of the most important inputs in agricultural production, one is naturally led to enquire into the evolution of average size of landholdings and other aspects related to ownership of land in rural India. One of the key facts about the evolution of the agrarian structure in India over the last five decades is the steadily declining size of agricultural holdings, as depicted in Figure 1, with a value that is currently even less than half the corresponding value in the early 1960s. But this average decline hides interesting patterns across size-classes of ownership. To discuss this and other important trends disaggregated by size of ownership holdings, we use a size-class classification of the peasantry that is summarised in Table 1. Later in the paper we offer some theoretical justifications for this classification based on sources of income data. The category of "effectively landless" is discussed further in the next section.

Table 1: Size-Class Definition

Size-Class	Area Owned
Effectively landless	=< 1 acre
Marginal	1.01 – 2.5 acres
Small	2.51 – 5 acres
Middle	5.01 – 10 acres
Large	> 10.01 acres

Figure 1: Average Size of Ownership and Operational Holdings



The average size of holdings obtaining in India today also has important implications for the agenda of redistributive land reforms, as traditionally envisaged within the left political tradition; we will comment on this issue in a later section but here wish to focus on the differential changes in the size of ownership holdings at the lower and upper ends of the landholding spectrum. Average size of ownership holdings has declined over the last five decades at the upper end of the ownership scale: average size of large, middle and even smallholdings have declined, with smallholdings registering the largest proportional decline. While the average size of ownership holding was 22.21 acres, 7.11 acres and 6.02 acres for large, middle and small category of peasant households in 1962 respectively, the corresponding figures in 2003 were 18.12 acres, 6.65 acres and 3.44 acres. The picture of overall decline in the size of area owned at the upper and middle end of the ownership scale stands in sharp contrast to the story at the lower end which is marked either by constancy or even marginal growth in size of ownership holdings. The average size of area owned by effectively landless households was 0.16 acre in 1962 and has more or less remained constant over the next four decades. The average size of area owned by the next category of landowners, the marginal peasant households, has increased slightly from 1.22 acres in 1962 to 1.61 acres in 2003 (Government of India 2006a).

Three factors seem to lie behind the declining average size of ownership holdings: land reforms, transfer of land through sale and growing demographic pressures. A detailed discussion on the history of land reform in India is outside the scope of this paper. We note in passing that most scholars have pointed out that the Zamindari Abolition Acts, passed in several provincial legislatures between 1949 and 1954, fell far short of transforming the agrarian structure.[4] These acts did not manage to seriously appropriate the land of the zamindars and therefore did not manage to curb the power of the landed elite *as a class* in rural society. We have little to add to this. We only point out that while there is truth in this claim, aggregate trends as well as case-studies demonstrate that tenancy reform brought into existence a large class of small and middle peasants, mostly belonging to the "intermediate castes" such as Yadavs in Bihar and Jats in Haryana, who were erstwhile tenants on large estates owned by upper-caste (usually non-cultivating) landlords. This is reflected in the decline in share of land held by the largest landowning households as well as a decline in the percentage of large landholding households in rural society.

Scaria (2010) in a study of Wadakkancherry village in Kerala notes that

> As much as 85% of the landholdings are below one-acre size and these landholdings constitute 32% of the total area of the village. This is in complete contrast to the situation in 1909, when the average size of landholdings was around 10 acres. Around 87% of the landholdings were below 10 acres in size and constituted only 20% of the total area (p 193).

The author attributes these changes to "land reforms, commercialisation of agriculture, the Depression, the second world war, social reforms and demographic pressures" (ibid).

Historically, the problem of smallholdings has been further exacerbated by the phenomenon of fragmentation of plots. Here the aggregate evidence does suggest some mitigation of the deleterious effects of declining size of contiguous farmed area. Average number of parcels per operational holding has declined steadily from 5.7 in 1962 to 2.3 in 2003 (Government of India 2006b). But even

within the overall trend of consolidation, there are large regional variations as highlighted by village-level studies. A recent study of 12 villages in Nalanda district highlights the continuing, and perhaps worsening, problem of land fragmentation in central Bihar:

> Another striking aspect of the landholding pattern in Chandkura [a village in Central Bihar] is the extent of fragmentation of holdings. The average number of plots per operated holding in 1995-96 was extremely high at 6.6, compared to an all-Bihar figure of 2.8 in 1991-92... The average size of plots was highest among those operating five acres and above, but even this group operates plots of an average size of only 1.3 acres (Wilson 1999: 326).

Fragmentation of holdings into multiple plots, as noted by Byres (1981), acts a major drag on the adoption of technological improvements in agricultural production and thereby impedes the growth of agricultural productivity, both of labour and of land.

In concluding this subsection we note that the declining size of ownership holdings suggest that land concentration – through transfer of land from small to large landowners – is not occurring on any significant scale in the country. This combined with the decline in share of land held by the largest landholders, has altered the rural landscape significantly in the past few decades. We return to this point in subsection 1.3.

1.2 Landlessness

Since land is one of the most important means of production in the agrarian economy, any analysis of the pattern of landownership in the rural economy must pay close attention to the group of landless households. Since this group of households is totally divorced from ownership of land, they might be expected to give us an accurate measure of the rural proletariat.

According to NSSO data, the extent of landlessness has stayed more or less constant over the last five decades: in 1960-61, 11.7% of rural households were landless; the corresponding figure in the 2002-03 survey came out to 10%. However this number is not very useful in understanding the agrarian class structure for at least two reasons. First, it hides tremendous regional variation that is crucial is explaining local agrarian politics. Even at the state level, the percentage of landless can vary from 18% (Maharashtra) to 4% (Uttar Pradesh) (Government of India 2006a). Harriss et al (2010) report that for Iruvelpattu village in Tamil Nadu the number of landless households has apparently doubled since 1981. The authors report that in 2008, 49% of households were landless compared with 29% reported in 1981.

But there is a more important reason why the category of "landless households" is inadequate and does not reveal the growing numbers of rural wage labourers. This is because the NSSO defines landless households as only those households which own less than 0.05 acres. However, data put out by the NSSO itself for 2002-03 show that households owning less than one acre use more than 90% of their land as homestead (Government of India 2006a: 25). Thus, if landlessness is understood as pertaining to land that can be used for cultivation and that can generate some income for the family, then a more realistic definition must consider all households owning less than 1 acre as "effectively landless". Two pieces of evidence can be offered in support of this claim. First, NSSO data reveal (Table 2) that 62% of agricultural labourers come from households that own more than 0.025 but less than 1 acre of land. These are the very households that we have clubbed together with the pure landless in the category "effectively landless". Second, in keeping with the foregoing finding, households owning less than one acre of land derive 60% of their income from wages (see subsection 1.5). One caveat that should be added is that "effectively landless" households may still cultivate their small plots and we present evidence in subsection 1.7 that they even sell a substantial portion (44%) of their output on the market.

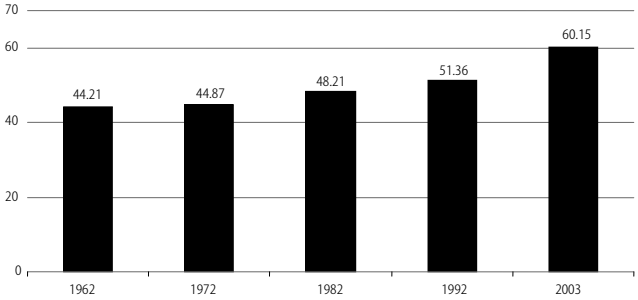
Table 2: Composition of Agricultural Labour and Farmer Households in Terms of Size-Classes

Size-Class	Agricultural Labour Household	Farmer Household	All Rural Households
Landless	19.7	0.6	13.1
Sub-marginal	62.3	14.6	44.8
Marginal	12.9	30.7	18.7
Small	4.1	26.5	12.2
Medium-large	1.0	27.5	11.2
All	100.0	100.0	100.0

Landless (< 0.01), sub-marginal (0.01 - 0.40), Marginal (0.41 - 1.00), Small (1.01 - 2.00), Medium-Large (> 2.00) hectares.
Source: NCEUS (2007) (based on NSS 61st Round 2004-2005, Employment-Unemployment Survey).

In Figure 2 and Table A5 (p 57) we see that the extent of effective landlessness has significantly increased over the decades, from 44.2% in 1960-61 to 60.1% in 2002-03 for the country as a whole. This also underscores the highly skewed distribution of landholding patterns in India even today: as we see in detail in the next section, about 60% of the poorest rural households in 2003 owned only 6% of the land *used for cultivation*!

Figure 2: Proportion of Effectively Landless among All Rural Households
(percentage of rural households)



Applying these categories to village-level data collected by Wilson (1999) in central Bihar we see that 50% of rural households were completely landless and another 21% owned less than one acre. Therefore 71% of the rural households were effectively landless. The countrywide trend of large and growing effective landlessness is also supported by data emerging from the 1999-2000 *resurvey* of the 12 villages surveyed originally in 1981-82 (Sharma 2005).[5] In 1999-2000, 43% of the rural households in Bihar were completely landless and another 43% owned less than 2.5 acres of land, giving an indication of large-scale landlessness. What we have termed effectively landless households, i e, those owning less than one acre, grew from 67% (of rural households) in 1981-82 to 73% in 1999-2000.

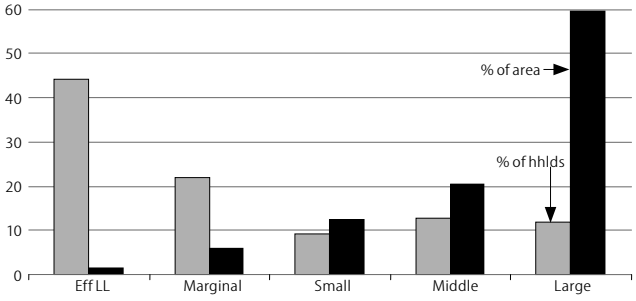
1.3 Patterns of Landownership across Size Classes

Understanding the class forces currently working in agriculture requires us to look not only at the evolution of the average size of holdings and landlessness but also at the aggregate ownership

patterns of land in the rural economy across all size classes. The steady decline in average size of holdings has been accompanied by some striking changes in the pattern of ownership of land in rural India. The proportion of effectively landless and marginal farmer households (owning less than 2.5 acres) has increased steadily over the last four decades, from about 66% in 1961 to about 80% of all rural households in 2003. This rather large increase has been matched by a steady decline of large farmer households (owning more than 10 acres): large farmer households comprise a minuscule 3.6% of rural households in rural India today (and in some states such as West Bengal they have completely disappeared from the scene); in 1961, on the other hand, this category represented about 12% of all rural households. Between the decline in the share of large landholding families and the increase in the share of effectively landless and marginal farmer families, the small-to-medium farmer family (those owning between 2.5 and 10 acres) has managed to more or less maintain its share constant over the past five decades, decreasing marginally from 23% to 17% of all rural households between 1961 and 2003 (Government of India 2006a).

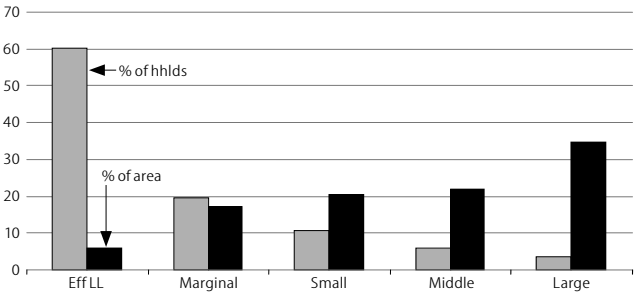
The pattern of ownership in terms of the share of total area owned more or less matches the foregoing pattern observed with respect to the share of households in the rural areas, though the pace of change is more rapid in case of the former. The share of total area held by farmer families owning up to 2.5 acres has steadily increased from 8% of total area in 1961 to about 23% of total area owned in 2003. Paralleling this is the steady decline in the share of total area owned by large farmer households: the share of area owned by large farmer households (those owning more than 10 acres) declined from 60% in 1961 to about 35% in 2003. Caught between these two trends is the small-to-middle farmer family (those owning between 2.5 and 10 acres), which has marginally increased its share in the total area owned from 33% in 1962 to around 42% in 2003. The changing pattern of ownership of land is depicted graphically in Figures 3 and 4 (see Table A2 (p 56) for details).

Figure 3: Share of Households and Area Owned by Size-Class of Ownership Holdings
(1962, percentage)



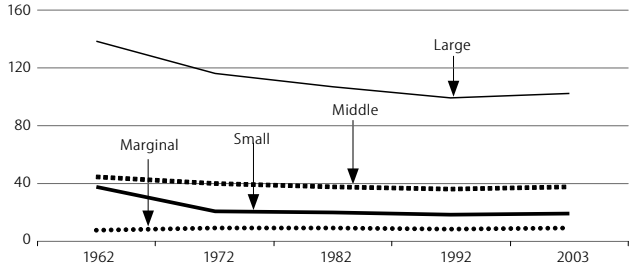
Has this changing pattern of landownership made the distribution of this most important asset more equitable? Perhaps counter-intuitively, the answer is no. Though the share of area owned by large landholding families has declined substantially over the past few decades, driven by demographic pressures and by some half-hearted attempts at land reforms, the resulting distribution of land at the beginning of the 21st century in India cannot be seen as more equitable than it was five decades ago. This can be seen from the fact that the Gini coefficient of ownership concentration was 0.73 in 1961-62, 0.71 thereafter till 1992 and then inched up to 0.74 in 2003 and that the Lorenz curve for the ownership distribution has also more or less remained unchanged between 1961-62 and 2003 (Government of India 2006a: 12-13).

Figure 4: Share of Households and Area Owned by Size-Class of Ownership Holdings
(2003, percentage)



Continued inequality can also be seen clearly in the evolution of average size of ownership holdings for all classes relative to the average size of holdings for the effectively landless households (Figure 5). As reported earlier, the average size of ownership holdings for large, middle and small peasant households has declined over the last five decades, but it is still very large relative to the average size of effectively landless holdings; average size of marginal holdings has slightly increased, over the same period, relative to the effectively landless holdings. While some land has moved from the upper to the lower spectrum of landownership, the growth of households at the lower end has far outstripped this transfer of land; thus, the degree of aggregate inequality in ownership has remained largely intact through these five decades.

Figure 5: Average Size of Ownership Holdings for Different Size-Classes
(multiple of eff landless holding)



The picture of agrarian change painted above – in terms of patterns of landownership and average size of ownership holdings by size-class categories – for the whole country is corroborated by the 1999-2000 resurvey of 12 villages (Sharma 2005). Since the stratified random sample of roughly 600 households is spread across the plains of Bihar, a comparison of the agrarian structure in 1981-82 (original survey) and 1999-2000 (resurvey) gives a fairly accurate and comprehensive picture of the key aspects of agrarian change in Bihar, and possibly in eastern India as a whole. Changes in the distribution of landownership in Bihar, according to the resurvey in 1999-2000, has been underlined by the loss of land, as measured by the average size of ownership holding, from all categories of size-classes and all caste groups. The loss of land was steepest for landlords, big peasants and agricultural labourers; the loss was lowest for the middle category of peasants, with poor middle peasants even gaining some land between 1981-82 and

1999-2000. In terms of caste, the most interesting pattern seems to be the relatively lower loss of land witnessed by the intermediate caste groups: Yadavs, Koeris and Kurmis.

Both these patterns have important implications for changes in the caste-class nexus in Bihar, and possibly all over India. At the lower end of the social and economic ladder, there is hardly any change over the decades: the scheduled caste households by and large continue to remain landless or near-landless, and mired in unimaginable poverty. At the upper end of the social ladder, there is a noticeable shift, though incomplete, in the ownership of land and social power from upper-caste non-cultivating landlords to intermediate-caste cultivating peasants.

1.3.1 A Note on Size, Surplus and Class

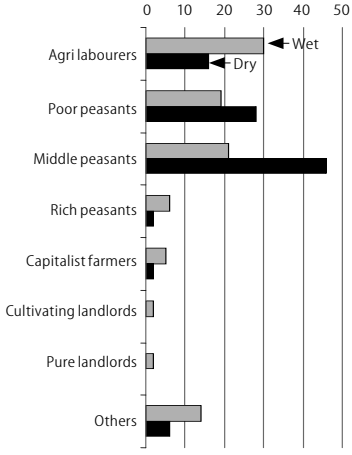
The skewed distribution of landownership, in itself, does not provide very useful information about the dominant relations of production prevailing in the agrarian economy and modes of surplus extraction most in use; a predominantly feudal mode of production can have a skewed ownership distribution as much as a predominantly capitalist mode of production. Many participants in the "mode of production" debate in India in the 1970s, and especially Patnaik (1972a, 1972b, 1976, 1980, 1986), drew attention to the fact that the acreage or size of agricultural holdings per se cannot be used to infer the class status, in the Marxist sense, of the owner of the holding or the relations she/he enters into with other classes in rural society. The same size of holdings can go with very different ways of organising production, i e, capitalist or semi-feudal, depending on the availability of water, power, fertilisers, draught animals, other tools and implements, etc. Hence, the same size-class of ownership or operational holding might have members from very different classes.

While this argument is theoretically valid, we might nonetheless use the average size-class of ownership holdings as a proxy, decidedly approximate, for the class position of the owner of the holding. This is a purely empirical argument and follows from the following two observed facts: (a) there is a very strong positive correlation between the size of land possessed and the ownership of animals, minor tools and implements (like sickles, chaff-cutters, axes, spades and choppers) and tractors (Statement 2, Government of India 2005a); and (b) if we define, following Patnaik (1976), the rural classes as full-time labourer, poor peasant, middle peasant, rich peasant, capitalist and landlord, then the proportion of the "upper classes" tend to increase as we move from smaller to larger sizes of ownership holdings. The second assertion, which seems fairly intuitive, is partly reflected in Patnaik (1980). In her sample of 236 households, of those owning between 2.5 and 10 acres, the majority were small peasants; of those owning between 10 and 15 acres, the majority were middle peasants. Even though Patnaik (1980) did not use a random sample and the sample size was small, we can probably still make the claim that size of holding provides a good approximation of the class position of the owner.

But we do not want to attach more importance to acreage than to use it as a rough indicator of class status. Hence, we supplement the above data on aggregate ownership patterns with the following variables: (1) geographical variation of landownership across Indian states, (2) the extent of tenancy, both over time and across space, (3) evolution of the pattern of tenancy relations, (4) the extent and growth of landlessness, (5) the major sources of income of rural households, (6) the pattern of capital accumulation in the agricultural sector, and (7) sources of credit in the rural economy. Taken together with the evolution of the pattern of landownership, these might help us construct a broad picture about the relations of production and the predominant modes of surplus extraction in the agrarian economy.

The second problem with relying on aggregate acreage data is that large productivity differentials may exist between irrigated and non-irrigated areas. The size of the agricultural unit and the surplus produced has a complex relationship codetermined by technological and geographical variables. A small plot in a dry area will produce much less surplus than a small plot in a well-irrigated area; a small fruit orchard will produce more by way of income than a small subsistence plot. For example, Vakulabharanam (2004) finds irrigated land to be equivalent to twice the non-irrigated land in terms of yield per acre, in Telangana. A recent study of the wet and dry areas of Tamil Nadu (Athreya et al 1986) offers a glimpse at how class structure is influenced by geographical and technical variables. Family labour accounts for a bigger share of total labour input in the dry areas as compared to the wet areas. A reflection of this fact is that the middle peasantry forms a more significant part of the population in the dry area, accounting for nearly half the agrarian population. We reproduce data from Athreya et al in Figure 6.

Figure 6: Estimated Class Structure of Wet and Dry Area (Percentage of Agrarian Population)



Source: Athreya et al (1986:7).

Further, the authors note that

> …due to the high level of surplus production in the wet area, the surplus appropriating classes constitute a bigger share of the total population (15%), than in the dry area where they make up a mere 4% (p 9).

To the best of our knowledge such data is not available at the national level to the same extent that data on landownership distribution is; hence, even though we understand the importance of the issue, we do not present detailed data on this in the paper. We hope that this issue will be explored in future research. However, we do not think that productivity differentials between irrigated and non-irrigated areas make state or national-level analysis useless. The appropriate level of analysis depends on the questions that the analysis is meant to address. Our aim in this study is to understand the broad patterns of evolution of the relations of production that the majority of the working population in India labours in; that is why we have undertaken the analysis at the aggregate level. We are aware of the fact that this necessarily forces us to ignore several important variations, like the extent of irrigation, observable at lower levels of aggregation; every

aggregate level study would face this limitation. A more disaggregated analysis is something we might take up in the future to complement our present study; but we believe that this does not detract from the usefulness of aggregate-level studies, which can inform national-level political strategy and action.

1.4 The Declining Importance of Tenancy

Growing landlessness might not lead to the consolidation of capitalist relations of production and growth of the rural proletariat and semi-proletariat if there is widespread and continuing prevalence of tenant cultivation. There are after all, two different ways in which the surplus labour of direct producers can be appropriated by the ruling classes in a rural context, directly as wage-labour (with various degrees of un-freedom built into the wage contract) and indirectly as land rent, with the latter referring to the rent paid as part of a tenancy contract. The first method of appropriating surplus is associated with capitalist relations of production, while the second is associated with semi-feudal methods of surplus extraction.

Tenant cultivation, with sharecropping as the form of the tenancy contract, especially allows extraction of the surplus product in the form of land rent. Therefore, sharecropping tenant cultivation has been historically identified as one of the most important semi-feudal forms of surplus extraction in rural India. It is for this reason that the extent of its prevalence today can be used as an important indicator of the continued strength of feudal and semi-feudal modes of surplus extraction, and indirectly as the relative strength of the landed gentry in rural society. Hence, it is important to complement the study of landownership and landlessness patterns with a close study of the evolution of tenancy, both the extent of its prevalence and the evolution of its form, over time. What does the evidence on tenancy show?

Aggregate level data suggests that tenant cultivation as a form of organising agricultural production has witnessed a steady decline in rural India over the last four decades. According to NSSO data, the percentage of households leasing in land has declined from 25% in 1971-72 to 12% in 2003; the percentage of area leased in to total area owned has declined from 12% in 1971-72 to 7% in 2003; and the percentage of area leased out to total area owned has also decreased from 6% in 1971-72 to 3% in 2003 (Government of India 2006a). The same declining pattern is observed even with data on tenancy from the various Agricultural Censuses in India.

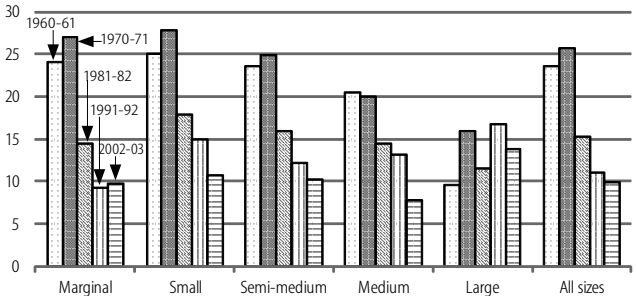
The sharp decline in the extent of tenancy is also observed for operational holdings. Whereas the percentage of operational holdings with partly or wholly-owned land has practically remained unchanged at around 95%, the percentage of operational holdings with partly or wholly leased-in land has fallen drastically from around 24% in 1960-61 to 10% in 2002-03. In terms of the total area operated, the percentage share of area leased in has declined from 10.7% in 1960-61 to 6.5% in 2002-03. At the aggregate level, the gradual shift from tenant cultivation to self-cultivation seems to be a persistent and unmistakable trend in the Indian agrarian economy.

It is true that aggregate figures about the decline of the extent of tenancy might not be very helpful in drawing conclusions about the "tenancy problem". It is conceivable that the decline in tenancy is largely restricted to larger holdings, i e, those belonging to middle and rich peasants, while there is a simultaneous increase in the incidence of tenancy for smaller holdings, i e, those belonging to poor peasant and effectively landless households (Patnaik 1976). Since, in any meaningful sense, the "tenancy problem" refers to the indirect extraction of surplus labour of the landless and near-landless households, we need to supplement the aggregate picture about the evolution of tenancy with a more disaggregated story, where the disaggregation runs along size-classes.[6]

The aggregate evidence on the evolution of tenancy by size-classes can be seen as emphasising five important points. First, as shown in Figure 7 (details in Table A7, p 58), other than for large operational holding (i e, operational holdings of 25 acres or more), the share of tenant holdings (i e, holdings with partly or fully leased-in land) has declined sharply in all the other categories since 1960-61. In fact, the share of tenant cultivation has marginally increased for large operational holdings over the last five decades (though there is a decline for this category between 1991-92 and 2003).

Figure 7: Percentage of Tenant Holdings by Size-Class

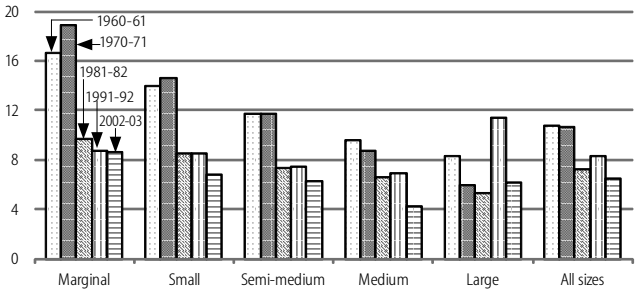
(Percentage of household)



Second, as shown in Figure 8, the share of area leased in by size-class of operational holdings display the same pattern across size-class categories: the share of leased-in area (in total operated area) has declined across the board, with the decline sharpest for the medium holdings. For large operational holdings, the share of leased-in land declined by the least proportional amount, with a large decline recorded between 1991-92 and 2003.

Figure 8: Leased-in Area as a Share of Operated Area by Size-Class

(Percentage of operated area)

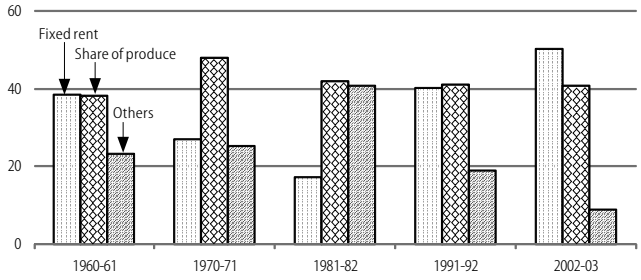


Third, as a culmination of the above two trends, a large proportion of the tenanted land was operated by the relatively large holdings. In 2003, for instance, 70% of the total tenanted land was operated by holdings that were larger than 2.5 acres, which accounted for only about 30% of all the operational holdings. Since only about 10% of such holdings were tenant holdings, this implies that about 70% of the total tenanted land was operated by only 3% of all operational holdings. Thus, even though marginal

holdings (i e, holdings of less than 2.5 acres) had a higher share of operated land as leased-in land, the relatively larger size-class categories operated a preponderant majority of the tenanted area (Government of India 2006b: 30).

The fourth trend relates to the terms of tenancy, i e, the specifics of the tenancy contract. The NSSO landholding surveys classify contracts relating to leased-in land into the following categories: (a) fixed money lease, (b) fixed produce lease, (c) share of produce lease, (d) service contract lease, (e) share of produce along with other terms, (f) leased from relatives. Figure 9 displays the trend for the terms of the tenancy contract since 1960-61 where fixed money and fixed produce rent has been clubbed together into the category of "fixed rent". The data shows two striking trends: (a) the fixed rent category of tenancy contracts, which includes both money and produce rents, declined till the early 1980s and since then has grown continuously to become the predominant form of tenancy arrangement in 2003; (b) sharecropping has maintained a steady share at around 40% of all tenancy contracts so that the growth in the fixed rent category has come at the cost of "other" forms of tenancy[7] (see Table A9, p 58 for more details).

Figure 9: Forms of Tenancy Contracts
(precentage of tenancy contracts)



The fifth fact relates to the geographical variation in the extent and forms of tenancy in 2003 (for details see Table A9). The states which report the highest share of leased-in area are Punjab, Haryana and Orissa, two of which have the most "developed" agricultural production. Apart from Orissa, Punjab and Haryana, all the other major states had leased-in area which was less than 10% of the total operated area. Thus, states which are usually considered to be the bastions of semi-feudal and pre-capitalist production relations are not the ones which have the highest prevalence of tenancy, with the notable exception of Orissa. The interstate variation in the terms of lease (for details see Table A10, p 58) also provides useful information. Haryana and Punjab, the states with the largest share of leased-in land, had fixed money lease contracts as the predominant form of tenancy. Assam, Bihar, Orissa and Uttar Pradesh were the four major states which had sharecropping as the predominant form of tenancy contract.

The micro-level evidence on tenancy from Bihar, Uttar Pradesh and Tamil Nadu is in agreement with the aggregate trends. Wilson's (1999) study of central Bihar hardly ever mentions tenancy and Harriss et al (2010) find very little tenancy in Iruvelpattu, Tamil Nadu. Sharma's (2005) findings highlight a considerable decline in households leasing in land across the plains of Bihar. While the proportion of households leasing in land for cultivation has declined significantly from 36% in 1981-82 to 23% in 1999-2000, the proportion of leased-in area in total cultivated area has inched up marginally. This has resulted in an increase in the average size of leased-in plots. There is an interesting pattern within the overall picture of declining tenancy: larger sized holdings increased, while lower sized holdings decreased, leasing in of land for cultivation.

> In the higher land size category, particularly [for] those with more than 10 acres of land, there has been a phenomenal increase in proportion of households leasing in as well as that of leased-in area. Earlier, no leasing in was reported by the households above 20 acres but during 1999-2000, the practice has started in this category also (Sharma 2005).

This implies that "reverse tenancy" has emerged as an important trend in Bihar since the early 1980s. In terms of the tenancy contract, fixed rent tenancy – both in cash and in kind – seems to be replacing sharecropping arrangements, especially in the relatively dynamic regions. "Apart from sharecropping, leasing in against labour services (labour tying tenancy) was one of the important modes of tenancy during 1981-82, which seems to have almost vanished by 1999-2000", especially so in the southern plains of Bihar (Sharma 2005).

Based on village-level studies, Sidhu (2005) also points to the changing nature of tenancy in north-western India. In states like Punjab and Haryana, the majority of the tenant cultivators are no longer the landless and poor peasants; it is rather the middle and rich peasants who lease in land to increase the size of their agricultural operations and reap some economies of scale on their capital investments (ibid). Thus, the prevalence of the fixed money rent form of tenancy, in Punjab for instance, is not an indicator of pre-capitalist relations of production, but are rather very much part of the capitalist development in Indian agriculture; the land rent that is earned by the lessor, in this case, can be considered capitalist rent. In states like Bihar and Orissa, on the other hand, tenancy is still predominantly of the old form, where the largest group of lessees is landless and near-landless peasants. In such a scenario, sharecropping operates as a semi-feudal mode of surplus extraction, where land rent can be considered pre-capitalist rent.[8]

Another example of "capitalist forms of tenancy" comes from Jaunpur district in eastern UP. Lerche (1999) offers an interesting example of a type of production relation that is neither strictly sharecropping nor precisely wage labour. In a canonical sharecropping arrangement the tenant provides all the inputs to production apart from land (even if he may have to borrow from the landlord to do so) and part of the output is appropriated by the landowner as rent. In Jaunpur, under the new system, the "sharecroppers" no longer supply all the means of production (always excepting land), rather they provide only simple tools. The landowner retains control over the major inputs and over production itself while the tenant only provides his and his family's labourpower. This appears to be a type of piece-rate system of wages cloaked in sharecropping phraseology. Though the system has existed for a long time, it has since the 1980s become a common way of cultivating paddy. In a variant of this, the *tiseri* system, "the landowner supplied 2/3 of expenditure for fertiliser and seeds, and provided irrigation, while the sharecropper provided all labour as well as the remaining share of inputs, and received one-third of the harvest" (p 188). Sharma (2005) reports a similar

practice in Bihar. Thus one can clearly see degrees of dispossession or proletarianisation at work here. The tiseri system became more prevalent in the 1990s as agricultural wages increased. According to Lerche, it has been adopted by landowners as a strategy to handle labour conflict. Here we see the emergence of what appear to be feudal relations of production (sharecropping in this case), which are really responses to new conditions created by changes in technology as well as caste/class struggle. The controversy over "unfree" labour in Haryana provides another example of seemingly pre-capitalist labour relations (in this case bonded or attached labour) being created in part as a result of capitalist class struggle (Brass 1990, 1994; Jodhka 1994).

The evidence on tenancy, thus, seems to suggest a sharply declining role of tenant cultivation at the national level. What is interesting is that its continued prevalence is observed mainly in contexts of capitalist agricultural production, where sharecropping is less important than money rents, and not in the states with semi-feudal modes of surplus extraction; among the three states with the largest reported share of tenant cultivation, the top two are Punjab and Haryana, precisely the states where capitalist farming has developed the most. In the more pre-capitalist settings, tenancy is relatively less prevalent today and has steadily declined over the decades but, along expected lines, sharecropping continues to be the predominant form of the tenancy contract. If, as mentioned earlier, the tenancy problem largely refers to semi-feudal modes of exploitation of the landless and near-landless through tenant cultivation, then this problem seems to have become less severe over the last five decades.

The decline of tenancy is a complex process often mediated by technological change and class struggle. Chakravarti's (2001) study, based on fieldwork done between 1978 and 1980 in a canal-irrigated village in Purnea district in north-eastern Bihar, though a little dated, offers a vivid picture of agrarian change and the decline of tenancy in north Bihar, a well-known bastion of feudalism. Two sets of factors, one social and the other technological, came together to affect a change in the situation so that by the early 1980s, sharecropping arrangements had been largely replaced by the use of wage labour. The social factors in question were those that were related to the emergence and sharpening of class struggle between landlords and sharecroppers, and the relevant set of technological factors were canal irrigation and tractorisation. Let us take up each of these in turn.

The first phase of the struggle in the 1930s and 1940s was centred on the action of Santhal bataidars (sharecroppers) against the exploitation of the maliks (upper-caste, non-cultivating landlords). Despite dogged resistance, the maliks managed to largely evict the Santhals – the original tenant cultivators – and replace them with more pliant intermediate caste bataidars. Within two decades, the intermediate caste bataidars, Yadavs in Purnea, managed to replicate the struggle of the Santhal sharecroppers and fiercely fought to claim occupancy rights over the land that they tilled. Maliks, once again, attempted to evict the tenants, which the latter resisted, at times quite successfully. Successful resistance to forcible eviction by maliks meant, according to the letter and spirit of the Bihar Tenancy Act of 1938, that tenants could buy the land, and often that is what happened.

Around the time when the maliks were actively trying to reorient production relationships in Purnea, some crucial technological factors kicked in. Canal irrigation from the Kosi river became available from 1969, facilitating an enormous increase in the intensity and scale of cultivation. The traditional agricultural cycle, with annual cultivation of a single crop on a given field, could now be replaced with multiple cropping on the same piece of land. This led to the development of a pattern of agricultural production that encouraged the cultivation of paddy, maize and wheat, the last being a novelty in the area. Keeping pace with the strict requirements of cropping time in the new agricultural cycle was greatly facilitated by the adoption of tractors. Thus, the tenant-labour based plough teams were gradually replaced with wage-labour using tractors. "By and large, the capacity of big landholders to organise production within the framework of the new agricultural cycle was determined by the possession of tractors" (Chakravarti 2001: 96).

The confluence of social and technological factors, thus, heralded the decline of sharecropping and its replacement by the use of wage labour. But what emerged from the womb of tenancy was not doubly free wage labour. Rather maliks attempted to work out arrangements so that dependency and "unfreedom" could be continued even within the framework of wage labour. The main mechanism through which agricultural workers could be constrained to work exclusively for the same malik as his "unfree labour" (known as *lagua jan*) was debt. One can surmise, based on field studies carried out in other parts of Bihar and in later years, that as employment opportunities outside agriculture became accessible to agricultural workers and poor peasants, their bargaining power increased, and elements of dependency and unfreedom gradually became weaker over time (see, for instance, Wilson 1999; Sharma 2005).

A caveat is in order before we conclude this subsection on tenancy. It is well known that reliable data on the real extent and terms of tenancy is difficult to come by. Due to the possibility of legal action securing the rights of tenants, there is always an incentive for landlords to understate the extent of tenancy they actually participate in. Often times, this is done by replacing recorded tenants with unrecorded tenants; if the extent of unrecorded tenant relationships are large, then official data on the extent of tenancy would underestimate their true prevalence. It is difficult to rule out the possibility that the NSSO data on tenancy suffers from such problems. What might mitigate the problem is the fact that we have looked at data on tenancy over several decades and not only at a point in time; hence, if the prevalence of unrecorded tenancies have remained more or less stable over time, we might get a relatively correct picture of the trend. Additionally, since we have supplemented aggregate level data with evidence from field-based studies and since both seem to point in the same direction, our conclusions regarding the prevalence and forms of tenancy are relatively robust.

1.5 Sources of Income and Growing Importance of Non-Farm Employment

While information on patterns of landownership, landlessness and tenancy provide very useful clues about the agrarian structure of India, this needs to be complemented with data on the sources

of rural income to get a more complete picture of class relations. How does the vast majority earn their incomes? Do they work mainly for wages or do they derive the lion's share of their income from self or tenant cultivation? What portion of their income comes from petty production? These are important questions to consider because they provide clues about the necessary relations into which the majority of the rural population enter during the process of production and income generation. A predominance of wage income would suggest the gradual spread of the institution of wage-labour and therefore of capitalist relations; continued dependence on income from cultivation (self or tenant) would suggest an opposite story.

Several caveats are in order before we proceed. First, a straightforward link between wage-labour and capitalism on the one hand, and non-wage income and non-capitalism on the other hand is problematic. As we will see in the section on industry, various types of self-employment income can result from merchant and finance capitalist relations (mainly variations on the putting-out system); hence non-wage income can often mask the underlying capitalist relations. Similarly, wage income can often mask the fact of bondage, extra-economic coercion and other forms of "unfree" labour restricting the domain of operation of capitalist relations. But, as has been pointed out, for instance by Patnaik (1976) and Brass (1990), many of these "unfree" relations are created by capitalism and are not relics of a pre-capitalist past. The second caveat is that the same individual may participate in several types of economic activities, as we highlight below, and thus the aggregate level distinctions that we make between wage and non-wage income might need serious modifications when looking at more micro-level phenomena. With these caveats in mind, we will proceed to study the sources of rural income because we feel the aggregate level distinction between wage and non-wage income still has important clues to offer about the dominant relations of production in India.

To start an analysis of the sources of rural income we need to revisit the issue, pointed out earlier, of the continued fragmentation of land. Continuing fragmentation leads to a declining average size of ownership and operational holdings, and this increasingly brings the question of viability of smallholding cultivation to the fore. Of course, the small size of the average holding is not the only factor that needs to be reckoned with when looking at the issue of viability of small-scale cultivation. Existence of the ground-rent barrier (Patnaik 1986), lack of formal credit, movement in the terms of trade vis-à-vis industry and services, dwindling rural public investment and rapidly eroding irrigation facilities kick in too, and make technological change almost impossible to initiate and sustain at the farm level; the exploitation faced by farmers in the input and output markets, combined with these other factors, force incomes from smallholdings to be extremely low. For instance, in 2002-03, the average return from cultivation per hectare, i e, value of output less value of paid out expenses (excluding value of family labour or rent of owned land), was Rs 6,756 for kharif and Rs 9,290 for the rabi season (Mishra 2007). The low returns from cultivation implies that most rural families need to augment their incomes through wage labour (in both the rural farm and non-farm sectors) and petty commodity production (of both agricultural and non-agricultural commodities), and possibly also provide for consumption needs of the family through subsistence farming.

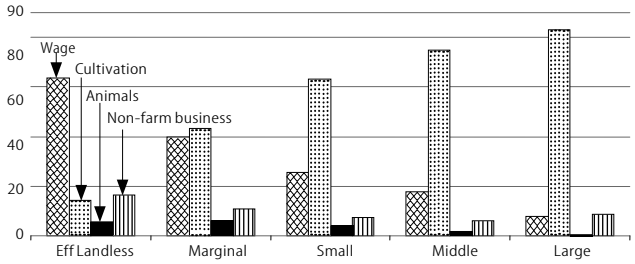
Figure 10 shows the distribution of sources of income across all size-classes. The first thing to notice is that across size-classes, cultivation now accounts for *less than half* (46%) while wages and non-farm business together account for 50% of monthly income of a farmer household. As might be expected, the dependence on wage income and income from petty production is especially pronounced for the small farmers, marginal farmers and near landless households, which together comprise about 85% of the rural population. Table 3 summarises information about the sources of rural income by the size-class of ownership holdings. Several important facts emerge from this data.

Table 3: Monthly Income and Consumption Expenditure (2003, Rs)

	Wage Income	Income from Cultivation	Income from Animals	Non-farm Business Income	Total Income	Consumption Expenditure
Effective landless	999	223	86	260	1,568	2,366
Marginal	720	784	112	193	1,809	2,672
Small	635	1,578	102	178	2,493	3,148
Middle	637	2,685	57	210	3,589	3,685
Large	496	5,195	26	531	6,248	4,881

Source: Table 6, Government of India (2006c).

Figure 10: Sources of Rural Income in 2003 by Size-Class
(Percentage of income)



First, most of the households have abysmally low incomes; the incomes do not cover even the basic expenditures necessary for survival. It is only the rural families with more than 10 acres of land whose total income exceeds their expenditures (Government of India 2005a; Mishra 2007). To put this in perspective, let us recall that in 2003, 96% of rural households owned less than 10 acres; thus, in 2003, 96% of rural households had lower total incomes – which includes income from cultivation, wage labour, farm animals and petty production – than even what their extremely low expenditures required. It is, therefore, not surprising that rural India should have seen an explosion of debt over the last decade, leading in many cases to severe distress and even suicides (Government of India 2007). In keeping with this dismal agrarian scenario, Vakulabharanam (2010) finds that increases in rural inequality between 1993-94 and 2004-05 were largely explained by rising inequality between the agrarian and non-agrarian rural classes, not by higher inequality between agrarian classes. The particular non-agrarian classes who have enriched themselves during this period are the rural professionals, moneylenders and the absentee landlords.

Second, for a large majority of rural households, the primary source of income is wage income (Figure 10). For all families with less than one acre, i e, the *effectively landless* households as

defined above, wage income provided more than half of their total monthly income; in 2003, let us recall that 60% of rural households belonged to this category. For completely landless households, of course, this proportion would be much higher. Third, income from petty commodity production accounts for a substantial portion – close to 20% – of the total income of rural households; this is especially true for near landless and marginal farmer households, who together comprised about 80% of rural households in 2003.

Thus aggregate level data seems to suggest that wage income has become a very important source of income for the majority of the rural population. This implies that surplus extraction through the institution of wage-labour has become one of the most important forms of extracting the surplus product of direct producers. As is well known, an important feature of wage-labour in agriculture is that even small and marginal peasants employ wage-labour. This can be seen from the fact that labour costs account for around 20% of expenses even for effectively landless and marginal farmers. This number shows only a modest increase to 24.5% for the large farmers (Government of India 2005a: A-162). When we combine this information with that presented earlier on sources of income, we see that the vast majority of farmers are routinely hiring in as well as hiring out their labour power. This has prompted scholars to create class categories based on "net hiring of labour-power". While this method is analytically appropriate, it is equally important, if not more so, to appreciate the political (class struggle and class alliance) consequences of such complexity of production relations. For example, Marx's observation of domestic industry that it entails the exploitation of labourer by labourer seems appropriate to this context as well.

Since income from petty commodity production, which shows up as income from non-farm business in Table 3 and Figure 10, is an important source of income for the effectively landless households (17% of total income) and marginal farmers (11% of total income), this suggests that exploitation by merchant capital through *unequal exchange* is also an important form of surplus extraction in the rural setting.

To pre-empt any misunderstanding, the notion of unequal exchange and its relationship to surplus extraction needs some elaboration. As long as commodities exchange in proportion to their values, i e, as long as prices reflect the underlying labour values congealed in commodities, artisanal producers cannot be exploited, in the Marxist sense of the term, because they are not separated from the means of production. But the formation of market prices is mediated through monopoly and other forms of bargaining power; hence, market prices for individual and groups of commodities can, in the presence of monopoly, deviate from the *their* labour values. If one party to the exchange can systematically ensure this deviation, this is tantamount to systematic unequal exchange, i e, exchange which systematically deviates from the labour values congealed in commodities. In such a situation, one party to the exchange appropriates part of the value that is produced by the other party, and thereby appropriates a part of the surplus labour time of the other party without giving anything in return. The markets where the commodities arising from petty production by landless and marginal farmers are sold are typically controlled by merchants; these merchants manage to systematically ensure deviation of prices (they pay to the artisan-producers) from underlying labour values due to their monopoly position in these markets. This is the sense in which merchant capital manages to appropriate a part of the value produced by petty producers through unequal exchange. We defer further discussion on this to the section on informal industry.

1.5.1 Growing Importance of Non-Farm Employment

A large majority of the village-level studies of agrarian change in India highlight the growing importance of non-farm employment opportunities for the economic and social lives of the rural poor. In a pioneering study of two villages in south Gujarat spanning a period of more than 30 years, Breman (1993) has indicated the crucial role of employment opportunities outside the village and outside agriculture in eroding the basis for the system of labour bondage known as *halipratha*. Wilson (1999) and Sharma (2005) highlight the importance of non-farm employment for improving the material conditions of effectively landless and marginal farmers in Bihar.

Similarly Bhalla (1999) notes in her study of Haryana that

> In India in recent decades, the factor which has mattered most in the determination of farm wages is the availability of alternative, non-farm jobs as reflected in shifts in the structure of a growing workforce in favour of industrial, trade, transport, communications and service sector employment (p 26).

Already in the 1990s Haryana was one of four states where non-farm employment accounted for more than half of all (principal status) jobs when rural and urban areas are taken together.

Harriss et al (2010) in their resurvey of Iruvelpattu (Tamil Nadu) note that the earlier, 1981 survey found that 24% of the households could be described as "non-agricultural". By 2008, such households made up more than 40% of all households. They conclude that

> In 2008, though cultivation still remained the most important single activity of Iruvelpattu, and employed two-thirds of the village labour force, it was no longer so essentially an "agricultural village".

Harriss-White and Janakrajan (1997) in their study of North Arcot district in Tamil Nadu observe that even though

> only 10% of households give "manufacturing" as their primary occupation, apparently-rubbishing the idea that the non-farm economy has expanded, this figure conceals what we believe to be a significant change over the previous decade. For 41% of male labour and 8% of female labour are employed in the rural non-farm economy, and half the landed agricultural households report at least one adult in non-agricultural activity (p 1,474).

When they look at individuals rather than households they find a striking emergence of weaving as a major form of rural livelihood and a massive increase in the miscellaneous category "other sources of livelihood" from 20% in 1982-84 to 36% in 1993-94, which includes petty or household manufacturing, construction, trade, transport, storage and "other services", which itself is a large and unspecified category. The authors are led to conclude that "The non-agricultural economy is no longer marginal, it is of central importance to the reproduction of rural society" (p 1,475).

Village studies in Uttar Pradesh echo these findings. According to a study in Meerut district cited by Lerche (1999: 193) between 59 and 70% of income of landless households came from non-agricultural employment. Srivastava (1999) in village studies conducted in west, central and east UP also underlines the importance of non-agricultural employment. In four of the six village studies, non-agricultural employment accounted for more labour days of the year than agricultural employment. However, much of this employment is migrant. Only in one village (Siswa in west UP) was there a substantial amount of local non-agricultural work available (66% of total employment days).

Access to employment opportunities outside the village has at least three important consequences for the rural poor. First, it directly augments their income by offering employment during off-peak seasons of agricultural production. Second, it increases the bargaining position of the rural poor vis-à-vis their employers within the village; this is one of the most important factors contributing to higher real wages and better conditions of work in agriculture. Third, by offering escape routes from the closed village milieu, it helps in countering the worst aspects of caste-based oppression. Thus, non-farm employment opportunities have not only economic but also social and political implications for the rural poor.

Before moving on to the next subsection, we would like to draw attention to the fact that the sources of income data can be used to understand the rationale behind the definition of size-classes that we have adopted in this paper (for details of the definitions see Table 1). There is a sharp distinction between what we have termed effectively landless households, who comprised about 60% of rural Indian households in 2003, and the rest of the population: as can be seen in Figure 10, effectively landless households derive only a small portion of their income from cultivation, the largest share coming in the form of wages. For all the other households, cultivation remains a significant source of income, starting at 43% for marginal and increasing all the way to 83% for large farmer households. In a sense, therefore, all these households could be categorised as farmers or peasants, with the differences between them deriving from the differential mix of wage and income from cultivation.

1.6 Sources and Terms of Credit

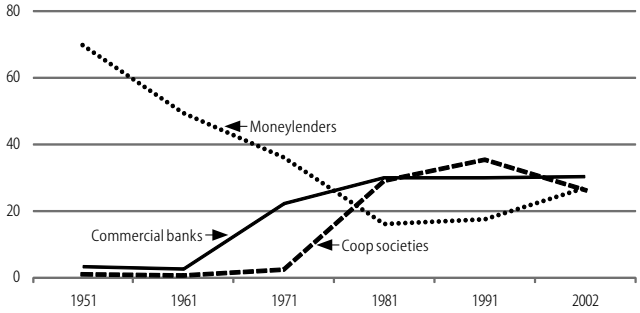
Informal credit, often linked with product and labour markets, has historically played a very important role in the perpetuation of semi-servile conditions of life and economic stagnation in rural India. Since usurious capital, which operates through the mechanism of informal credit, is never directly involved in the process of production in the sense in which industrial capital is, the profits of the moneylender can only be understood as a claim on the surplus product produced elsewhere. Usurious capital, therefore, gets a share of the total surplus production through the process of redistribution of the surplus without having participated in its generation. That is the sense in which usurious capital is understood to be necessarily parasitic.

During the "mode of production" debate, usurious capital and debt bondage played a key role in defining "semi-feudalism", which was understood as a semi-servile state of existence for the majority of the working population in the agrarian economy. Low production by tenant cultivators necessitated consumption loans; often these loans were made by the same landlord who had hired out land to the tenant. The terms of these loans were so onerous that they could never be possibly paid back by the tenant; as interest kept piling up on top of the original loan amount, the tenants were eventually forced to "pay back" in labour services rendered to the landlord. Thus, this mechanism of perpetual debt bondage drastically reduced the freedom of labour to participate in the institution of wage-labour and created the semi-servile conditions identified as "semi-feudalism" (Prasad 1974). Note that in such a situation, a large part of the surplus product of the direct producers was appropriated as direct "labour services", a characteristic feature of a feudal organisation of production.

Equally important, informal credit was often the mechanism through which different markets, like the labour and the product markets were linked together. This interlinked system of markets then facilitated extraction of surplus through unequal exchange, in the sense we have used this term above. Interest rates in these "informal" credit markets were often as high as 30% per month and the main borrowers were the landless labourers, the marginal and small peasant households whose total income remained perennially below their consumption expenditures. Existence of usurious capital also acted as a depressant on the rural economy: very high rates of return promised by moneylending activities created enormous disincentives for productive investment, thereby perpetuating conditions of economic stagnation and social backwardness. Furthermore, production relations were themselves important in shaping these unequal exchange relations. It is precisely the small size of landholdings and absence of sufficient collateral due to maldistribution of assets, that forces peasants to go to informal credit sources and as a result to self-exploit themselves. Hence, for all these reasons, it is important to study the evolution of informal credit in the rural economy of India. What does the evidence say?

While the share of total rural credit provided by moneylenders declined substantially between 1961 and 1981, the trend of rapid decline was halted in the early 1980s. Since then the moneylender has made a spectacular comeback in rural India, as can be seen in Figure 11 (details in Table A11, p 58). The new moneylenders, though, are quite different, in terms of social composition, from the older ones. While the earlier brand of moneylenders had close links with landed property, the new crop does not seem to have that connection. Over the last two decades, various

Figure 11: Major Sources of Credit for Rural Households
(percentage of outstanding loans)

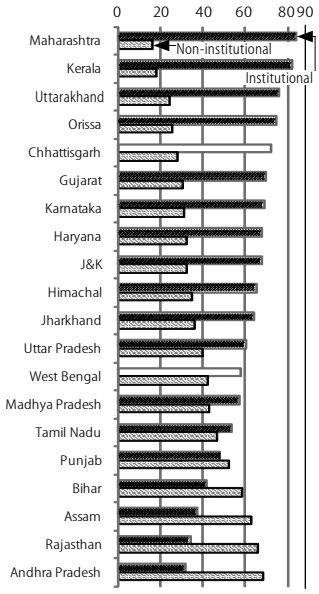


groups of the rural population, like traders, schoolteachers, government servants, lawyers, rich farmers, and other members of the petty bourgeois class, have entered this lucrative business, facilitated by the gradual but steady retreat of formal credit institutions (see Vakulabharanam 2010 for resulting inequality in the rural sector).

Sources and uses of credit, disaggregated by size-classes in 2003, show two important characteristics. First, the share of total credit coming from non-institutional sources, especially moneylenders, falls secularly across the size-class spectrum: for effectively landless households close to half of outstanding loans come from moneylenders; for middle and large farmer households, the corresponding share is less than 20%. Second, the share of credit that is used for financing consumption expenditures, as opposed to productive investment expenditure (both capital and current expenditures), falls secularly as we move from the lower to the higher size-class categories: about 57% of total outstanding loans is used by effectively landless households to finance consumption expenditure; the corresponding figure for middle and large farmer households hovers around 13% (Government of India 2005b). The implication of both these facts is that the problem of debt exploitation, even if lower at the aggregate level than in the early 1960s, continues to be a serious issue for the majority of the rural poor, the effectively landless and marginal farmers.

The interstate variation of the prevalence of informal credit, as depicted in Figure 12, has interesting features. First, most of the larger states have a larger share of the total rural credit coming from formal than from informal sources; other than Punjab, Rajasthan, Assam, Bihar and Andhra Pradesh, all the other states had a higher proportion of total credit attributable to formal than to informal sources in 2003. Since the largest component of informal credit comes from moneylenders, most states seem to have had relatively lower prevalence of moneylenders. Second, some of the states with relatively well developed capitalist agriculture like Punjab, Andhra Pradesh and Tamil Nadu also have a very high prevalence of informal credit. In Punjab, for instance, one of the main players in the informal credit market is the trader-middleman (*arhatiya*), who often provides credit, sells inputs and also procures the output from the farmer. This typical pattern of interlinked markets allows the surplus product to be easily extracted from the direct producer through unequal exchange whereby input prices are inflated and output prices depressed. Interestingly, West Bengal, which has had some limited degree of land reforms in the past, also shows a high percentage of non-institutional forms of rural credit.

Figure 12: Institutional versus Non-institutional Credit across Indian States (2003), (percentage of total credit)



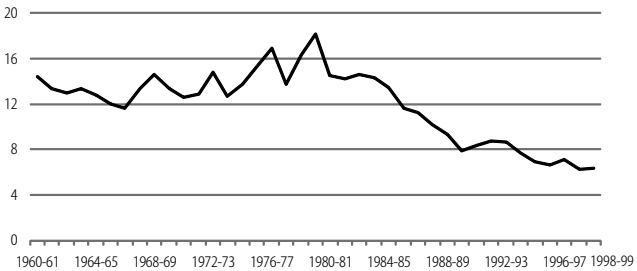
1.7 Capital Formation in Agriculture

The foregoing data on the rural class structure, decline in tenancy, rise in proportion of wage-labour, etc, seem to suggest a growing trend towards capitalist relations of production in Indian agriculture. We have not referred thus far, however, to capital accumulation or reinvestment of surplus product, which is considered to be a historically important aspect of capitalist production. Has there been any significant trend towards reinvestment of surplus and capital accumulation in the agrarian economy? What does the aggregate level data suggest in this regard?

From 1961 to 1999, gross capital formation in agriculture (GCFA) grew at about 3% per annum, a significant rate of growth by developing country standards. Decomposed by decades, the growth in gross capital formation displays significant differences. While the growth rate of GCFA was 5.05% per annum in the decade of the 1960s, it accelerated to 8.7% per annum during the 1970s; thereafter, the growth rate slowed down significantly. During the 1980s, capital formation registered a negative growth rate of -0.33% per annum and picked up again to a growth rate of 2.89% per annum during the 1990s. What is interesting is that the slowdown in capital formation is largely accounted for by the deceleration of public sector capital expenditures in agriculture. Private sector investments, though growing at a slower rate than in the 1960s and 1970s never became negative even as public sector investment growth dipped below zero; moreover, it has picked up steam during the 1990s despite poor performance of the public sector (Gulati and Bathla 2002: Table 1.2).

How does this growth in capital accumulation in the agricultural sector compare with the rest of the Indian economy? To answer this question, we look at GCFA relative to the aggregate gross domestic capital formation (GDCF) in the Indian economy. As can be seen from Figure 13 (details in Table A13, p 58), agriculture's share in GDCF was stable at around 15% till the early 1980s; in fact it even displayed a slight positive trend from the mid-1960s to the early 1980s. Thereafter, capital formation in agriculture has declined drastically as a share of the total capital formation in the economy, from about 18% in 1980 to a little more than 6% in 1999.

Figure 13: Capital Formation in Agriculture as a Percentage of Gross Domestic Capital Formation
(percentage)



Source: Gulati and Bathla (2002).

Aggregate level data on capital formation in Indian agriculture, therefore, seem to suggest that there was significant capital accumulation during the 1970s and 1980s. During this period, capital formation in agriculture kept pace with capital formation in the rest of the Indian economy. From the decade of the 1980s, driven largely by changes in central government policy, agriculture has faced a state of relative neglect: capital formation in agriculture

has not only significantly slowed down but has also fallen relative to the rest of the economy. This can be accounted for by the drastic fall in public investment in agriculture.

The aggregate picture seems to be corroborated by the village-level accounts from Bihar (Wilson 1999; Chakravarti 2001; Sharma 2005). Peasant capitalism led by intermediate caste cultivators had emerged in parts of Bihar in the 1970s, generating surpluses and its reinvestment into the agrarian sector. Tractorisation and development of irrigation facilities were a direct result of this development. The dynamic of peasant capitalism, though, seems to have completely stalled by the mid-1980s. Diversion of agrarian surpluses of the 1970s away from productive investment avenues into corruption and crime, and the decline (or even complete wiping out) of surpluses since the mid-1980s due to increasing real costs of cultivation – caused by corruption as well as by policy changes of the State in a neoliberal direction – have brought back stagnation into agrarian Bihar and in much of eastern India.

1.8 Penetration of the Market

Though the picture of village India as a self-contained economy with minimal links to the rest of the world was always an exaggeration, it was not till forced commercialisation took root under the watchful eyes of British colonialism that local production got integrated into wider production and distribution networks. Since the transfer of power in 1947, market penetration of the rural economy has continuously increased driven both by the production of marketable surpluses in agriculture and the refashioning of cropping patterns according to the needs of Indian and global capital. What does the evidence on market penetration, as measured by marketed surplus, show?

Table 4: Marketed Surplus Ratio (%)

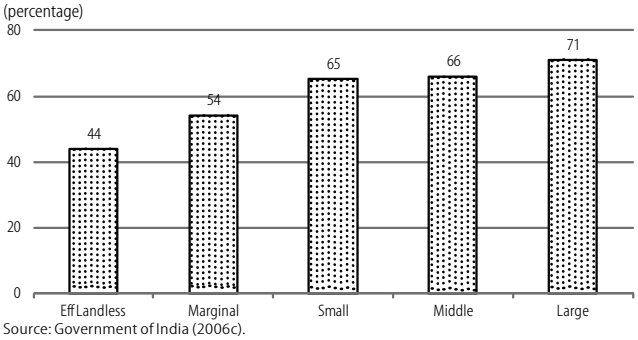
	1950-51	2001-02
Rice	30	63.5
Wheat	30	73.3
Maize	24	51.6
Jowar	24	54
Bajra	27	56.9
Arhar	50	77.2
Gram	35	81.3
Lentil	55	89.9
Sugar cane	100	91.8
Cotton	100	86.9
Jute	100	100
Onion	NA	100
Potato	NA	91.1

Source: Chand (2006: 140).

Table 4 gives the marketed surplus ratio (MSR), i e, the share of the output (in quantity terms) that is sold in the market, for key crops at two points in time five decades apart. Comparing the early 1950s to the early 2000s, we see a sharp increase in the marketed surplus ratio for all important non-cash crops like rice, wheat and maize; cash crops like sugar cane, cotton and jute, on the other hand, have always registered a high marketed surplus ratio and did not show much change over the last five decades. The massive increase in the marketed surplus ratio for key crops indicates an increasing penetration of the market over the last five decades. But this aggregate figure for key crops might hide important variations across size-classes. It is possible that most of the marketed surplus comes from large landholding families, while small landholding families produce mainly for subsistence needs.

How is the market penetration spread out across size-class categories? Figure 14 plots the marketed surplus ratio by size-class categories in 2003. Along expected lines, the MSR increases secularly with the size of holding with the small and middle categories being almost indistinguishable on the basis of MSR. However, just as the sources of income data indicates a substantial contribution to household income of marginal and small farmers from cultivation *and* wages, we see here that subsistence farming *and* production for the market both account for substantial portions of output. Thus even if it is true that in absolute terms most of the marketed surplus is accounted for by large landholders, in relative terms even the smallest landholders sell a non-negligible 44% of their output. Effectively landless and marginal farmers – who comprise a little more than 60% of the rural households – keep around half of their produce for family consumption and sell the other half.

Figure 14: Marketed Surplus Ratio by Size-Class (2003)



Source: Government of India (2006c).

Combined with the data we presented earlier on labour costs as a per cent of cultivation expenses, as well as the well-known commercialisation of other inputs to farming, such as seeds, electricity and fertiliser, we are confronted with a picture of the peasantry that has been substantially integrated into the market across size classes and hence is extremely sensitive to input and output prices. This is one of the key characteristics of current Indian political economy and we will return to this later in the paper.

1.9 Interstate Variation

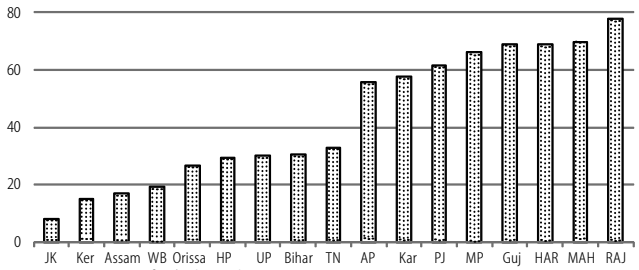
Students of Indian society have always been struck by its enormous diversity. It is therefore not very surprising that the agrarian structure displays wide regional and state-level variations across the country. Though we have indicated these state-level variations at several relevant locations in the text, in this section, we would like to gather together some of these key findings and present a coherent story about regional variation around themes of landownership patterns, landlessness, sources of income and occupational patterns (cultivators versus agricultural workers).

To make sense of the geographical variation in the patterns of landownership across Indian states, we have divided all the states into two groups (Figure 15, p 55). The first group comprises states which had a relatively large share (more than 50% in 1972) of the total area owned by large landholding families (i e, those owning more than 10 acres); we call these the "large landholding states" (LLS) and summarise information about these states in Table A3. The second group consists of states where large landholding families owned a relatively small proportion (less than 32% in 1972) of the total area; we call these the "small landholding states" (SLS) and provide data about these states in Table A4.

The following states belong to the first group: Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, and Rajasthan. The second group, i e, the small landholding group has the following members: Assam, Bihar, Himachal Pradesh, Jammu and Kashmir, Kerala, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal.

Figure 15: Share of Land Owned by Large Farmer Households in 1972

(percentage)

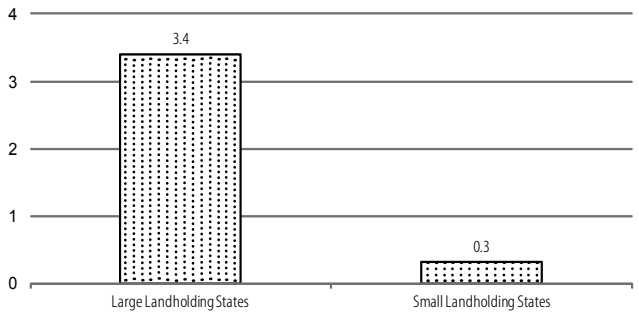


Source: Government of India (2006a).

A rather striking feature of the division into the two groups of states, LLS and SLS, is that the former group of states continues to have large inequality in landholding in comparison to the latter group. For example, in Haryana a "LLS" medium and large holdings account for 46% of land, as opposed to a mere 14% held by the same category of households in Bihar, a SLS. While landownership inequality, as measured by the ratio of the share of land owned by large (those owning more than 10 acres) to the share owned by marginal and effectively landless households together (those owning less than 2.5 acres), has declined over the decades across all states, it continues to remain almost an order of magnitude higher in the LLS as compared to the SLS. As shown in Figure 16, the share of land owned by the large landowning families in 2003 was about 3.4 times that owned by marginal landowning families in the LLS. For the SLS, the story was exactly opposite: marginal and effectively landless households together (those owning less than 2.5 acres) owned about three times more land than large landowning families.

The division into what we call large landholding and small landholding states has some usefulness. Anecdotal and other evidence that we have presented in the paper suggests that the first group of states, i e, the LLS, is precisely the group that has witnessed relatively robust growth of capitalist relations of production in agriculture;[9] the second group largely consists of the states, which are still encumbered by remnants of pre-capitalist modes of organising production. The fact that the latter group of states is marked by lower inequality in landownership and has also seen a relatively greater decline in the share of land owned by large landholding families seems to suggest that the economic position of the "semi-feudal" landlords, to the extent they derive their power solely from landownership, has declined relative to the middle and rich farmers and capitalist landlords at the national, state and regional level.

Figure 16: Ratio of Total Land Owned by Large to Marginal Farmer Households in 2003

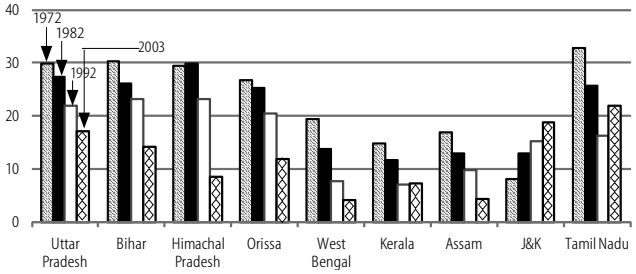


Source: Government of India (2006a).

While the division into large and small landholding states has its use, other dimensions of regional variation emerge when we focus on the temporal evolution of another key feature of the agrarian structure: concentration of landownership as measured by the share of land owned by large landowners. Figures 17 and 18 display the evolution of land concentration in the LLS and SLS states. The measure plotted in the graphs is the share of total land owned by large landholding families, i e, families with more than 10 acres of owned land. The SLS display a strong tendency towards de-concentration (with the exception of Tamil Nadu and J&K) while the LLS display a much weaker de-concentration tendency. The key characteristic of the LLS is that they show either a reversal of the trend of deconcentration (Andhra Pradesh, Gujarat, Haryana) or a significant slowing down of that process (Karnataka, Punjab, Rajasthan).

Figure 17: Share of Total Land Owned by Large Landholding Families in SLS

(percentage)

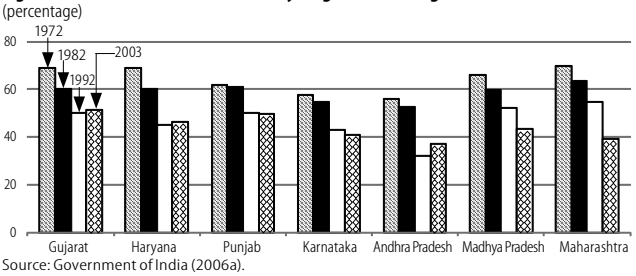


Source: Government of India (2006a).

The interstate evidence on landownership inequality and land concentration seems to suggest that semi-feudal landlords have been replaced by rich and middle peasants as the ruling bloc in the agrarian structure of a large part of contemporary India. This, as we point out later, was not so much the result of political conflict between a rising capitalist farming class and the feudal oligarchy; rather, the latter have, aided by a pliant State, gradually transformed themselves into capitalist farmers, among other things. We return to this important point in the concluding section.

Figure 18: Share of Total Land Owned by Large Landholding Families in LLS

(percentage)



Source: Government of India (2006a).

1.10 Concluding Remarks

On the basis of the data presented in the foregoing sections, we are led to the following tentative conclusions: over the past few decades, the relations of production in the Indian agrarian economy

have become increasingly "capitalist"; this conclusion emerges from the fact that the predominant mode of surplus extraction seems to be working through the institution of wage-labour, *the* defining feature of capitalism. Articulated to the global capitalist-imperialist system, the development of capitalism in the periphery has of course not led to the growth of income and living standards of the vast majority of the population. On the contrary, the agrarian economy has continued to stagnate and the majority of the rural population has been consigned to a life of poverty and misery.

Aggregate level data suggests that the two main forms through which the surplus product of direct producers is extracted are (a) surplus value through the institution of wage-labour (which rests on equal exchange), and (b) surplus value through unequal exchange (which mainly affects petty producers) where input prices are inflated and output prices deflated for the direct producers due to the presence of monopoly, monopsony and interlinking of markets. Semi-feudal forms of surplus product extraction, through the institution of tenant cultivation and sharecropping, have declined over time. Merchant and usurious capital continues to maintain a substantial presence in the life of the rural populace, both of which manage to appropriate a part of the surplus value created through wage-labour, apart from directly extracting surplus value from petty producers through unequal exchange.

The process of class differentiation has been considerably slowed down and complicated due to the steady incorporation of the Indian economy into the global capitalist system, which has supported and even encouraged the growth of a large informal sector. This informal production sector can be best understood as being involved in petty commodity production, both of agricultural and non-agricultural commodities. Petty commodity production refers to the organisation of production where the producer owns the means of production and primarily uses family and other forms of non-wage labour in the production process. Petty commodity production is exploited mainly by merchant and usurious capital where the main form of surplus extraction is through the mechanism of unequal exchange and not through the institution of wage-labour; unequal exchange is often facilitated and maintained through interlinked product, labour and credit markets. The coexistence of both wage-labour and petty commodity production, whereby landless labourers, marginal farmers and small farmers participate in both, in one as free labour and in the other as owner-producer, has complicated the task of revolutionary politics. This is a point we return to in the concluding section but before that we turn to a detailed study of petty commodity production in the non-agricultural sector.

(*To be concluded.*)

NOTES

1 Thorner (1982a, 1982b, 1982c) summed up the debate and Patnaik (1990) contains a selection of the key articles.

2 For an incisive analysis of the use of the notion of surplus for economic analysis see Baran (1957).

3 The Sengupta Commission (NCEUS 2007) has adopted the following definition of the informal sector:

> The unorganised sector consists of all unincorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than 10 total workers (p 2).

4 See Thorner and Thorner (1962), Januzzi (1974), and Frankel (2005) for details.

5 The original survey was part of a comprehensive A N Sinha Institute of Social Sciences-International Labour Organisation study under the leadership of Pradhan H Prasad.

6 For the discussion on tenancy, we follow the definition of size-classes adopted by recent NSSO reports (see, e g, Government of India 2006a) where the category of marginal refers to holdings of less than 2.5 acres, small refers to holdings between 2.5 and 5 acres, semi-medium to holdings between 5 and 10 acres, medium to holdings between 10 and 25 acres, and large refers to holdings larger than 25 acres. Note that these definitions are different from the ones we have used in other sections of the paper (presented in Table 1). Our inability to use the same set of definitions for the discussion on tenancy arises from the lack of historical data on the prevalence of tenancy by sufficiently disaggregated size-class categories. Though the two sets of definitions are different in details, nonetheless they convey similar sets of information in the sense of showing differential trends by the size of area owned. Hence, they are approximately comparable and can be used, in the context of data limitations, one for the other.

7 "Other" forms of tenancy includes the following: (a) tenancy under service contract, (b) tenancy for share of produce along with other terms, (c) tenancy under usufructary mortgage, and (d) tenancy from relatives under no fixed terms.

8 For a distinction between capitalist and pre-capitalist rent see Patnaik (1976).

9 The fact that states like Punjab and Haryana have undergone robust capitalist growth has been widely noted and commented on. Evidence that points in this direction are: relative consolidation of agricultural holdings, increased mechanisation of the production process, predominance of peasant-proprietors as opposed to parasitic landlords, radical change in the pattern of tenancy (on which more below), accumulation of capital in the agricultural sector, etc. For evidence on the growth of capitalist relations in Punjab agriculture, see Sidhu (2005) and the references therein.

Appendix 1

Table A1: Average Size of Ownership Holding in India

	1961-62	1971-72	1982	1992	2003
Estimated area owned (million ha)	128.73	119.64	119.74	117.35	107.23
Average area owned (ha)					
Including landless	1.78	1.53	1.28	1.01	0.73
Excluding landless	2.01	1.69	1.44	1.14	0.81
Area operated (million ha)	133.48	125.68	118.57	125.1	107.65
Average area operated (ha)	2.63	2.2	1.67	1.34	1.06

Source: Report No 491, NSS 59th Round, January-December 2003.

Table A2: Landownership Structure in Rural India by Ownership Size-Class

		Marginal	Small	Semi-Medium	Medium	Large
1961	% of households	66.06	9.16	12.86	9.07	2.85
	% of area owned	7.59	12.39	20.54	31.23	28.25
1971	% of households	62.62	15.49	11.94	7.83	2.12
	% of area owned	9.76	14.68	21.92	30.73	22.91
1982	% of households	66.64	14.70	10.78	6.45	1.42
	% of area owned	12.22	16.49	23.58	29.83	18.07
1992	% of households	71.88	13.42	9.28	4.54	0.88
	% of area owned	16.93	18.59	24.58	26.07	13.83
2003	% of households	79.60	10.80	6.00	3.00	0.60
	% of area owned	23.05	20.38	21.98	23.08	11.55

Source: Report No 491, NSS 59th Round, January-December 2003.

Table A3: Large Landholding States: Share of Area Owned by Ownership Size-Class

		Marginal	Small	Semi-Medium	Medium	Large
Andhra Pradesh	2003	21.87	19.95	21.16	22.91	14.05
	1992	21.30	22.44	24.15	24.06	8.06
	1982	11.26	15.29	20.70	29.83	22.92
	1971-72	9.92	13.16	21.19	30.15	25.58
Gujarat	2003	13.60	16.05	18.96	39.12	12.28
	1992	9.55	15.44	24.78	31.99	18.24
	1982	6.66	10.78	22.63	39.45	20.49
	1971-72	4.53	9.94	16.73	36.15	32.65
Haryana	2003	13.15	15.83	24.62	34.14	12.26
	1992	7.96	13.43	33.54	37.17	7.91
	1982	5.04	13.44	21.58	44.90	15.05
	1971-72	4.63	7.43	18.95	46.93	22.06
Karnataka	2003	16.65	19.45	23.18	29.52	11.20
	1992	11.05	18.35	27.82	26.62	16.16
	1982	6.21	13.56	25.40	31.45	23.38
	1971-72	5.74	11.81	24.84	35.19	22.42
Madhya Pradesh	2003	11.61	19.07	25.80	31.25	12.29
	1992	7.61	15.49	24.97	35.38	16.57
	1982	4.99	11.08	24.30	37.93	21.72
	1971-72	3.34	9.16	21.36	37.80	28.34
Maharashtra	2003	12.38	17.57	30.88	27.35	11.78
	1992	7.02	12.61	25.54	33.43	21.41
	1982	4.65	10.90	20.82	36.23	27.40
	1971-72	3.48	8.59	18.34	35.45	34.14
Punjab	2003	9.16	15.63	25.30	34.50	15.31
	1992	7.18	12.35	30.21	38.04	12.22
	1982	5.59	10.76	22.87	42.23	18.56
	1971-72	4.47	8.87	25.06	37.96	23.64
Rajasthan	2003	9.26	11.19	18.61	28.40	32.52
	1992	5.42	10.04	18.90	31.55	34.10
	1982	3.63	7.29	17.29	35.19	36.59
	1971-72	2.03	6.78	13.15	32.89	45.15

Source: Statement 5, Report No 491, NSS 59th Round, January-December 2003.

Table A4: Small Landholding States: Share of Area Owned by Ownership Size-Class

		Marginal	Small	Semi-Medium	Medium	Large
Assam	2003	44.42	34.87	16.36	4.32	0.00
	1992	38.05	29.07	23.06	8.53	1.29
	1982	24.53	34.81	27.67	11.50	1.48
	1971-72	22.15	30.22	30.79	15.20	1.64
Bihar	2003	42.07	25.29	18.53	9.56	4.63
	1992	28.58	23.84	24.45	18.68	4.44
	1982	23.96	22.91	27.02	20.22	5.90
	1971-72	18.20	23.43	28.07	23.63	6.67
Himachal Pradesh	2003	43.80	28.02	19.77	6.45	2.03
	1992	34.99	20.35	21.57	18.50	4.60
	1982	20.94	23.09	26.04	27.82	2.11
	1971-72	21.22	23.43	25.92	23.12	6.31
J&K	2003	36.26	25.49	19.54	11.12	7.58
	1992	25.52	33.40	25.84	15.23	0.00
	1982	28.13	30.29	28.70	12.56	0.32
	1971-72	27.41	39.33	25.20	8.06	0.00
Kerala	2003	60.72	21.13	10.78	7.16	0.00
	1992	54.51	24.19	14.32	6.33	0.66
	1982	45.74	23.51	19.11	10.06	1.59
	1971-72	40.88	24.32	19.95	11.89	2.96
Orissa	2003	41.52	27.06	19.72	9.98	1.78
	1992	26.37	27.16	25.99	18.08	2.40
	1982	19.88	29.73	25.04	19.50	5.84
	1971-72	20.45	26.95	25.88	20.72	6.00
Tamil Nadu	2003	33.21	23.10	22.09	20.57	1.23
	1992	33.28	26.24	24.15	12.15	4.18
	1982	23.57	27.24	23.53	20.94	4.71
	1971-72	20.23	21.84	25.21	22.97	9.75
Uttar Pradesh	2003	34.89	27.38	20.74	14.65	2.34
	1992	27.42	24.88	25.82	18.14	3.73
	1982	20.36	24.08	28.11	22.25	5.18
	1971-72	17.49	24.65	27.94	23.85	6.07
West Bengal	2003	58.23	25.71	11.88	4.02	0.00
	1992	41.29	28.11	22.98	7.62	0.00
	1982	30.33	28.77	27.23	12.12	1.54
	1971-72	27.28	25.69	27.72	18.61	0.70

Source: Statement 5, Report No 491, NSS 59th Round, January-December 2003.

Table A5: Effective Landlessness in Rural India: Cumulative Distribution of Landownership Patterns over Time

	1961-62		1971-72		1982		1992		2003	
Area Owned	% of Households	% of Area	% of Households	% of Area	% of Households	% of Area	% of Households	% of Area	% of Households	% of Area
0 ha	11.68	0	9.64	0	11.33	0	11.25	0	10.04	0.01
< 0.21 ha	37.9	0.54	37.42	0.69	39.93	0.9	42.4	1.31	50.6	2.08
< 0.41 ha	44.21	1.59	44.87	2.07	48.21	2.75	51.36	3.8	60.15	5.83

Source: Report No 491, NSS 59th Round, January-December 2003.

Table A6: Cultivators and Agricultural Workers in Rural India (2001)

	Cultivators	Ag Workers	Agwrkr/Cultiv		Cultivators	Ag Workers	Agwrkr/Cultiv
Andhra Pradesh	77,57,337	1,33,84,671	1.73	Madhya Pradesh	1,07,33,516	71,36,391	0.66
Arunachal Pradesh	2,75,403	17,634	0.06	Maharashtra	1,15,69,293	1,03,14,720	0.89
Assam	37,12,769	12,53,451	0.34	Orissa	41,97,912	49,21,925	1.17
Bihar	80,75,104	1,31,45,639	1.63	Punjab	19,98,640	13,94,035	0.70
Goa	45,885	31,076	0.68	Rajasthan	1,29,21,374	24,36,566	0.19
Gujarat	56,97,434	49,83,209	0.87	Sikkim	13,1,201	16,952	0.13
Haryana	29,58,215	12,24,403	0.41	Tamil Nadu	47,73,028	75,33,766	1.58
Himachal Pradesh	19,46,890	92,598	0.05	Tripura	3,10,871	2,72,712	0.88
Jammu and Kashmir	15,59,633	2,27,325	0.15	Uttar Pradesh	2,17,54,799	1,29,31,317	0.59
Jharkhand	38,58,788	28,10,671	0.73	Uttarakhand	15,56,202	2,44,520	0.16
Karnataka	66,84,521	59,01,934	0.88	West Bengal	55,85,848	72,40,517	1.30
Kerala	6,93,986	15,07,081	2.17	Total	11,87,98,649	9,90,23,113	0.83

Source: Census of India, 2001.

Table A7: Share of Tenant Holdings by Operational Size-Class

	Percentage of Tenant Holdings				
	1960-61	1970-71	1981-82	1991-92	2002-03
Marginal	24.1	27	14.4	9.3	9.8
Small	25.1	27.8	17.9	14.9	10.7
Semi-medium	23.6	24.8	15.9	12.2	10.3
Medium	20.5	20	14.5	13.1	7.8
Large	9.5	15.9	11.5	16.7	13.8
All sizes	23.5	25.7	15.2	11	9.9

Source: Report No 492, NSS 59th Round, January-December 2003.

Table A8: Tenancy in the Major Indian States

	Share of Tenant Holdings			Share of Area Leased In		
	1981-82	1991-92	2002-03	1981-82	1991-92	2002-03
Andhra Pradesh	13.8	14.1	12.9	6.2	9.6	9.0
Assam	12.9	10.1	8.9	6.4	8.9	5.3
Bihar	19.7	5.6	12.7	10.3	3.9	8.9
Gujarat	4.8	3.7	5.3	2.0	3.3	5.1
Haryana	25.9	17.1	10.7	18.2	33.7	14.4
Karnataka	10.7	8.0	4.6	6.0	7.4	3.6
Kerala	6.7	5.2	5.1	2.6	2.9	4.0
Madhya Pradesh	8.0	9.0	7.3	3.6	6.3	3.6
Maharashtra	10.6	6.9	6.6	5.2	5.5	4.7
Orissa	18.2	16.9	19.4	9.9	9.5	13.0
Punjab	21.3	15.9	13.1	16.1	18.8	16.8
Rajasthan	7.1	6.5	2.9	4.3	5.2	2.8
Tamil Nadu	24.7	15.3	9.4	10.9	10.9	6.0
Uttar Pradesh	20.5	15.5	11.7	10.2	10.5	9.5
West Bengal	23.1	14.4	14.1	12.3	10.4	9.3

Source: Report No 492, NSS 59th Round, January-December 2003.

Table A9: Share of Leased-in Area by Terms of Lease

Terms of Lease	1960-61	1970-71	1981-82	1991-92		2002-03	
				incl nr	excl nr	incl nr	excl nr
Fixed money	25.6	15.4	10.9	19	22.7	29.5	29.8
Fixed produce	12.9	11.6	6.3	14.5	17.4	20.3	20.6
Share of produce	38.2	47.9	41.9	34.4	41.1	40.3	40.8
Other	23.3	25.1	40.9	32.1	18.8	9.9	8.8

Source: Report No 492, NSS 59th Round, January-December 2003; nr=not reported.

Table A10: Share of Area by Terms of Lease, Major Indian States (2002-03)

	Fixed Money	Fixed Produce	Share of Produce	From Relatives	Other
Andhra Pradesh	31.6	37.9	24.0	2.1	4.4
Assam	15.8	3.6	55.0	0.0	25.6
Bihar	12.0	17.5	67.0	0.5	3.0
Gujarat	10.7	46.3	37.9	3.5	1.6
Haryana	71.2	9.8	15.8	0.1	3.1
Karnataka	32.4	41.1	24.8	0.0	1.7
Kerala	39.9	7.5	12.0	33.0	7.8
Madhya Pradesh	18.3	32.5	39.0	1.6	8.6
Maharashtra	26.2	9.0	37.5	15.7	11.6
Orissa	11.1	7.8	73.0	3.5	4.6
Punjab	79.2	1.5	15.3	3.1	0.9
Rajasthan	35.0	17.7	39.3	1.1	6.9
Tamil Nadu	32.0	30.0	22.9	7.3	7.8
Uttar Pradesh	23.8	12.9	52.9	5.0	5.4
West Bengal	23.7	28.5	34.9	4.1	8.8
India	29.5	20.3	40.3	4.0	5.9

Source: Report No 492, NSS 59th Round, January-December 2003.

Table A11: Share of Debt from Various Sources for Cultivator Households (%)

Sources of Credit	1951	1961	1971	1981	1991	2002
Institutional	7.3	18.7	31.7	63.2	66.3	61.1
Cooperative societies	3.3	2.6	22	29.8	30	30.2
Commercial banks	0.9	0.6	2.4	28.8	35.2	26.3
Non-institutional	92.7	81.3	66.3	36.8	30.6	38.9
Moneylenders	69.7	49.2	36.1	16.1	17.5	26.8
Unspecified	-	-	-	-	3.1	-

Source: Government of India (2007).

Table A12: Gross Capital Formation in Agriculture at 1993-94 Prices

	GFCFA	CIS	GCFA		GFCFA	CIS	GCFA
1961	59.02	3.77	62.79	1981	137.21	5.12	142.33
1962	54.68	0.23	54.91	1982	134.07	6.72	140.79
1963	58.33	2.00	60.33	1983	137.66	7.63	145.29
1964	62.72	2.77	65.49	1984	139.26	7.99	147.25
1965	68.14	1.14	69.28	1985	138.46	11.02	149.48
1966	71.77	2.27	74.04	1986	130.61	10.71	141.32
1967	72.79	1.64	74.43	1987	127.89	9.19	137.08
1968	79.55	0.49	80.04	1988	133.75	9.19	142.94
1969	78.83	6.83	85.66	1989	143.35	4.27	147.62
1970	83.18	5.83	89.01	1990	127.28	6.96	134.24
1971	79.80	6.85	86.65	1991	158.05	6.11	164.16
1972	83.72	7.98	91.70	1992	145.46	4.19	149.65
1973	90.63	12.46	103.09	1993	156.10	5.31	161.41
1974	88.15	15.54	103.69	1994	147.49	5.00	152.49
1975	86.09	13.55	99.64	1995	160.12	8.31	168.43
1976	93.48	22.97	116.45	1996	170.14	8.70	178.84
1977	113.56	30.99	144.55	1997	174.72	12.91	187.63
1978	115.85	17.21	133.06	1998	174.99	11.81	186.80
1979	129.97	51.99	181.96	1999	179.79	10.33	190.12
1980	136.09	42.14	178.23				

Source: Gulati and Bathla (2002).

Table A13: GDCF, GDP and Shares in 1993-94 Prices

Years	GDCF (Rs Billion)	GDP (Rs Billion)	GFCA/GDCF	GDPA/GDP	GDCF/GDP
1960-61	435.49	2,221.61	14.42	40.53	19.6
1961-62	409.96	2,305.72	13.39	39.61	17.78
1962-63	465.05	2,375.2	12.97	37.61	19.58
1963-64	489.12	2,519.79	13.39	38.52	19.41
1964-65	540.61	2,707.27	12.82	40.36	19.97
1965-66	616.79	2,638.64	12	38.14	23.38
1966-67	641.01	2,634.41	11.61	39.21	24.33
1967-68	600.68	2,839.76	13.32	41.92	21.15
1968-69	588.05	2,938.17	14.58	40.79	20.01
1969-70	666.26	3,130.39	13.36	40.51	21.28
1970-71	689.71	3,292.27	12.56	39.09	20.95
1971-72	709.78	3,348.42	12.92	37.28	21.2
1972-73	697.14	3,329.12	14.79	37.19	20.94
1973-74	816.64	3,434.73	12.7	40.3	23.78
1974-75	724.58	3,475.53	13.75	37.39	20.85
1975-76	759.45	3,794.04	15.33	34.48	20.02
1976-77	853.06	3,858.69	16.94	32.69	22.11
1977-78	966	4,137.81	13.77	34.18	23.35
1978-79	1,112.5	4,375.04	16.36	32.41	25.43
1979-80	981.59	4,145.71	18.16	30.56	23.68
1980-81	981.91	4,423.19	14.5	36.02	22.2
1981-82	991.98	4,717.09	14.19	35.56	21.03
1982-83	991.99	4,880.89	14.65	34.13	20.32
1983-84	1,025.14	5,216.87	14.36	34.98	19.65
1984-85	1,112.26	5,453.49	13.44	33.96	20.4
1985-86	1,217.57	5,766.54	11.61	32.35	21.11
1986-87	1,219.78	6,031.39	11.24	30.73	20.22
1987-88	1,398.91	6,265.59	10.22	29.19	22.33
1988-89	1,584.54	6,895.41	9.32	30.63	22.98
1989-90	1,699.65	7,325.78	7.9	29.25	23.2
1990-91	1,956.5	7,733.49	8.39	28.85	25.3
1991-92	1,715.53	7,815.75	8.72	28.1	21.95
1992-93	1,874.77	8,185.44	8.61	28.39	22.9
1993-94	1,984.12	8,592.2	7.69	28.16	23.09
1994-95	2,421.13	9,222.89	6.96	27.55	26.25
1995-96	2,692.19	9,928.77	6.64	25.37	27.12
1996-97	2,638.83	10,619.02	7.11	26	24.85
1997-98	2,985.68	11,103.84	6.25	24.39	26.89
1998-99	2,975.18	11,853.99	6.39	24.48	25.1

Source: Gulati and Bathla (2002).