

# Ownership Holdings of Land in Rural India: Putting the Record Straight

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In the past, research on land distribution in rural India has pointed out that the surveys by the National Sample Survey Organisation have yielded underestimates of the extent of land inequality and landlessness. In a fresh analysis, this paper, using household level data from the 48th and 59th rounds (1992 and 2003-04) of the NSSO, finds that (within the limitations of the data) more than 40 per cent of households in rural India do not own land, as much as 15 million acres is in ownership holdings of more than 20 acres, and inequality in ownership has worsened between 1992 and 2003-04.

Land is the fundamental means of production in an agrarian society without which no agricultural production can take place. An understanding of the pattern of ownership and operational holdings of land is, therefore, of central importance to an understanding of the agrarian class structure. Data on landholdings in India, in particular, on ownership holdings of land have been fraught with problems. Data from land and livestock surveys conducted decennially by the National Sample Survey Organisation (NSSO) are the most important source of information on distribution of landholdings in India. As part of these surveys, detailed data are collected on ownership and operational holdings, tenancy, nature of land use, status of irrigation, and cropping pattern.

Several scholars in the past have questioned the reliability and accuracy of estimates of distribution of ownership holdings and extent of landlessness as shown by these surveys. It has been noted, for example, that the NSS surveys underestimated the extent of landlessness, extent of tenancy, and inequality in ownership and operational holdings [Ramachandran 1980; Ramakumar 2000; Sharma and Dreze 1998]. Underestimation of inequality in ownership of landholdings and extent of tenancy have been attributed to under-reporting by land rich households in view of land reform laws. Existence of large holdings results in undermining the potential for implementation of land ceilings in different states.

According to the published estimates from the 59th round of the land and livestock surveys, only about 10 per cent households did not own any land [Sharma 1994, 2007; Chaddha et al 2004]. Primary data-based studies from most states report a much higher level of landlessness. Also, NSS surveys themselves report a much higher level of landlessness (of the order of about 40 per cent) in terms of operational holdings. Such a large level of discrepancy between landlessness in terms of ownership holdings and landlessness in terms of operational holdings cannot be explained by the extent of tenancy.

In recent years, the NSSO has been releasing household-level data from the surveys done by the organisation. With these data, NSSO provides survey schedules, instruction manuals prepared for survey investigators and detailed information on methodology of estimation. These documents have helped better understand the nuances of data collected by the organisation.

Unit-level data from the land and livestock surveys have been released for the surveys conducted as part of the 48th round (for the reference year 1992) and the 59th round (for the reference year 2003-04). A detailed study of documents provided with

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these data show that published estimates of ownership holdings from these surveys pertain to all types of land owned by the households, including homestead land, and not merely to productive/agricultural land. In contrast, operational holdings refer to only agricultural land. This difference in the way ownership and operational holdings are defined is the main cause of discrepancy in the extent of landlessness by the two definitions. The proportion of households that do not own any land refers to households that do not even have homestead land of their own. In contrast, the proportion of households that do not operate any land refers to households that do not cultivate any agricultural land.

For any meaningful contribution to an understanding of the agrarian class structure, it is important to analyse the pattern of ownership of land that can be used in the process of production and identify landless households as households that do not own productive land.

### Homestead Land

It is, of course, true that ownership of homestead land has important implications for economic well-being and social conditions of rural households in particular for socially disadvantaged communities. It is therefore important to look at the lack of ownership of homestead land separately. The problem with published reports from the NSSO has been that they have provided estimates that referred to both homestead and other lands without explicitly stating so.

As the unit-level data are available from both the 48th and the 59th round of the land and livestock surveys, it is possible to separate ownership of homestead and other land, and analyse the pattern of their distribution separately. Such an analysis from the 48th and the 59th round land and livestock surveys, however, has some limitations.

First, in both the 48th and the 59th round surveys, ownership holding was divided between homestead land and land other than homestead. There were, however, differences in the way the two types of land were divided and the kind of information that was collected on the two types of land.

In the 48th round survey, only a limited amount of information was collected on productive activities carried out on homestead land. The respondents were only asked whether or not different types of productive activities including cultivation were undertaken on the homestead. Information was not collected on the extent of cultivation on homestead land. In fact, the instruction manual for the survey clearly indicated that the purpose of asking information was to cover marginal crop production in kitchen gardens. The column on whether the household did crop production on the homesteads was, by and large, used for recording marginal maintenance of kitchen gardens. In particular, the instruction manuals did not give clear instructions on how to handle cases where a household resided on a plot on which substantial crop production took place on a distinct segment. Let us consider, for example, the case of a household that owned a 10 acre plot of agricultural land. It constructed a house on part of this land and started residing there. In such a case, was all the 10 acres counted as homestead land, or only a part of it counted as homestead and the rest as agricultural? Now, let us consider a second example of a household which maintained a kitchen

garden on a small part of its homestead and grew a little bit of vegetables for self-consumption on it. It is not clear how was such a case differentiated from the first example.

In the 59th round survey, the format for collection of data on ownership holdings was changed drastically. In the schedule for the 59th round, plot by plot data were collected for all the land owned by the household and not merely for land other than homestead. Secondly, the schedule for the 59th round had provision for separately recording details of land which was a distinct part of the homestead but on which crop production took place. On the other hand, in the 59th round schedule, respondents were not asked about whether crop production of a marginal nature were undertaken on the homestead or whether the respondents maintained a kitchen garden. The instructions did not specify explicitly how to deal with cases where the crop production happened to a small extent on an area that was not distinct from the residential part of the household.

In other words, while the 48th round survey did not have a precisely specified method of recording information on crop production when it happened on a substantial scale on a distinct part of the same plot that was used for residence, the 59th round survey seems to have missed out on maintenance of kitchen gardens and marginal cultivation on the homesteads.

### Three Tendencies

This is important in view of three different types of tendencies that have been reported from different states. First, marginal crop production on homesteads is an important source of food for the poor in many states. Secondly, in some states, for example in Haryana, Punjab and parts of Rajasthan, it has been reported that many landowning households shift their residence to their agricultural lands. In such cases, a small part of the agricultural

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land is used for residence while crop production takes place on a substantial and distinct part of the same plot. Thirdly, in Kerala, a substantial proportion of households, including poor and households that were provided homesteads as part of land reforms, are known to cultivate commercial crops on parts of their homesteads.

**Table 1: Proportion of Households that Do Not Own Land (2003-04, in %)**

State	Official Estimates (Households That Do Not Own Any Land Including Homestead)	Households That Do Not Own Any Land Other Than Homestead	Households That Neither Own Any Land Other Than Homestead Nor Cultivate on Owned Homestead Land
(1)	(2)	(3)	(4)
Jammu and Kashmir	3.29	10.97	7.29
Himachal Pradesh	15	22.68	21.87
Punjab	4.57	56.89	29.51
Uttarakhand	10.64	26.4	21.15
Haryana	9.21	49.49	25.96
Uttar Pradesh	3.82	26.2	16.31
Rajasthan	5.65	19.95	12.73
Chhattisgarh	12.09	27.31	20.8
Madhya Pradesh	12.05	31.81	22.76
Gujarat	13.6	44.11	35.37
Maharashtra	17.66	44.78	38.27
Andhra Pradesh	14.33	53.19	48.75
Karnataka	14.09	40.47	30.76
Kerala	4.8	68.36	36.74
Tamil Nadu	16.55	64.52	55.43
Bihar	7.6	38.8	31.01
West Bengal	6.15	46.52	34.69
Jharkhand	4.8	39.25	18.43
Orissa	9.56	38.48	31.07
Sikkim	30.67	44.4	37.96
Arunachal Pradesh	21.59	23.5	22.59
Nagaland	8.02	15.45	10.85
Manipur	2.68	30.3	13.53
Mizoram	2.34	14.1	6.67
Tripura	8.69	59.52	33.22
Meghalaya	6.7	29.01	19.93
Assam	8.05	40.3	23
India	10.04	41.63	31.12

All of this means that what is recorded as cultivation on homesteads is not strictly comparable between the two surveys. By the same logic, ownership of land other than homesteads is also not strictly comparable between the two surveys. As a result, it is not possible to accurately compare changes in proportion of landless households and distribution of ownership of land between 1992 and 2003-04. It may also be mentioned that different treatment of cultivation on homestead land affects the data on operational holdings as well, and therefore, it is not possible to compare distribution of operational holdings of land between the two years. The problems of comparability of data on ownership and operational holdings of households are particularly serious in states where cultivation on a part of homestead is widespread.

Another serious problem with the 59th round survey was that, in that survey, information on land use and access to irrigation was not collected for ownership holding of the household but only for land that was operated by the household. Also, categories of land use were mixed with information on crops that were grown.

For owned land, the distinction was made only between homestead and all other land. Land other than homestead was not further classified into agricultural land and land under other categories of use. It is, therefore, not possible to isolate ownership of productive, agricultural, or irrigated and unirrigated lands from the 59th round survey.

### Poor Design of 59th Round

The survey schedule for the 59th round of the land and livestock survey conducted by NSSO was very poorly designed. This is unusual for NSSO, an organisation that is unparalleled anywhere in the less-developed world in terms of its enormous in-house expertise in organising and conducting socio-economic surveys. The design of the 59th round survey schedule was such that information on important aspects of landholdings were not captured. Land and livestock surveys have missed some important aspects of land relations in the earlier rounds as well. For example, these surveys do not collect information on mortgage, and sale and purchase of land. The details on terms of tenancy are also inadequate. By dropping information on land use and status of irrigation on ownership holdings, the NSSO further narrowed the scope of the land and livestock survey in the 59th round. More so, the data collected in the 59th round were such that the estimates based on these are not comparable with the previous rounds.

The NSSO needs to expand the scope of these and use them to collect much more detailed data on land relations and livestock. It would also be appropriate to collect these data quinquennially rather than decennially.

In this article, I have used unit-level data from the 59th and the 48th round surveys to provide new estimates of landlessness and inequality in ownership of land other than homestead. Given the limitation that information on land use was not available, I have tried to create variables that represent ownership of productive land as closely as possible.

Table 1 shows the extent of landlessness across different states by three different measures of landlessness. Column (2) of the table gives the official estimates of proportion of households that do not own any land, either homestead or otherwise. Column (3) of the table gives the proportion of households that do not have any land other than homestead (some of these may not have any homestead also). Column (4) gives the proportion of households that do not have any land other than homestead and do not cultivate any part of homestead that they may own.

It may be noted that the estimates of landlessness presented in columns (3) and (4) of the table are considerably higher than the official estimates of landlessness (column 2). The estimates show that in 2003-04 about 41.6 per cent of households in rural India did not own any land other than homestead (of these, about 10 per cent did not own even homestead land). About 31.1 per cent of households did not own any land other than homestead and did not do any cultivation on their homestead (column 4).

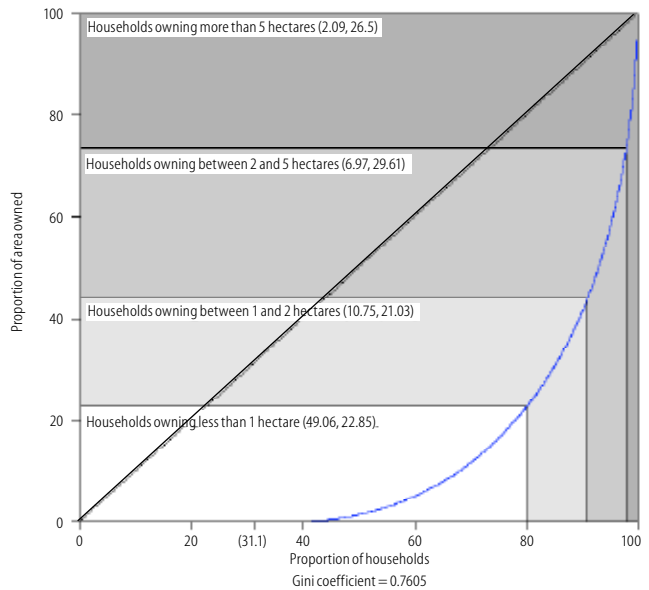
### Interstate Variations

Table 1 also shows that the extent of landlessness, by whatever measure is used, varies considerably across different regions and states. The proportion households that do not own any land other

than homestead (column 3) is highest (between 45 and 65 per cent) in agriculturally advanced states that have not had any land reforms (Punjab, Haryana, Tamil Nadu and Andhra Pradesh). All of these states also have a substantial proportion of land in the hands of large landowners. Among these, Punjab and Haryana have a substantial proportion of households that live on their agricultural land. In these states, the proportion of landless goes down substantially when the ownership of productive land attached to homesteads is taken into account (column 4). On the other hand, in Tamil Nadu and Andhra Pradesh, proportion of landless households remains very high irrespective of what measure is used in Tamil Nadu. The latter is noteworthy for an extremely high degree of landlessness.

Kerala, another state where a large proportion of households do not have land other than homestead, is different in some important respects. First, about half of the households which do not have any land other than homestead, cultivate a distinct part of their homestead land. Table 1 shows that proportion of households that do not have homestead is among the lowest in Kerala. It may be noted that a large number of households in Kerala were provided with homestead lands as part of land reforms. Research has shown that many of these households use homesteads for cultivation of commercial crops [Ramakumar 2006]. Secondly, in Kerala, a state with very high population density, a very small proportion of land is under large landholdings.

Figure: Lorenz Curves of Household Ownership Holding of Land, India, 2003



The Lorenz curve has been drawn for household ownership holdings which include all land other than the homestead land and the cultivated part of the homestead land. The shaded areas on the graph represent proportion of households in a size-class of ownership holdings and proportion of area owned by them. The labels for shaded areas include these proportions in the parentheses. The exact point where the Lorenz curve meets the x axis (31.1 per cent), representing the proportion of landless households, is marked on the x axis.

In the eastern states, where the population density tends to be high, the proportion of landless ranges between 35 and 45 per cent. In these states, the proportion of area under large landholdings is small.

Table 2: Distribution of Ownership Holdings of Land in States (2003-04, in %)

State	Proportion of Households								Proportion of Area Owned								Gini Coefficient
	Landless	Less than 0.4 ha	0.4-1 ha	1-2 ha	2-3 ha	3-5 ha	5-10 ha	>10 ha	Landless	Less than 0.4 ha	0.4-1 ha	1-2 ha	2-3 ha	3-5 ha	5-10 ha	>10 ha	
Jammu and Kashmir	7.29	40.63	29.95	14.65	4.67	1.67	0.94	0.2	0	9.15	20.77	21.55	13.14	7.31	6.12	21.96	0.6533
Himachal Pradesh	21.87	37.68	24.31	11.45	2.77	1.46	0.35	0.1	0	14.2	28.95	28.37	12.43	9.36	4.65	2.04	0.6274
Punjab	29.51	38.66	8.33	9.54	5.79	4.79	2.43	0.95	0	1.5	6.53	15.82	16.98	23.05	20.48	15.63	0.8225
Haryana	25.96	37.6	13.52	9.85	5.59	4.26	2.8	0.43	0	2.19	10.07	15.94	15.97	19.9	23.72	12.21	0.8059
Uttarakhand	21.15	48.87	22.98	5.8	0.88	0	0.32	0	0	26.73	40.79	21.19	6.12	0	5.17	0	0.5963
Uttar Pradesh	16.31	41.98	22.86	12.42	3.43	2.1	0.81	0.09	0	10.22	23.91	27.95	13.55	13.27	8.66	2.44	0.6691
Rajasthan	12.73	19.42	23.57	16.54	8.94	7.98	6.8	4.02	0	1.42	7.77	11.37	10.47	14.91	21.55	32.5	0.6819
Chhattisgarh	20.8	17.57	27.2	17.92	8.8	5	2.2	0.51	0	2.48	16.66	23.62	18.69	18.61	13.1	6.84	0.6283
Madhya Pradesh	22.76	16.91	22.17	17.8	7.02	8.05	4.18	1.11	0	0.99	10.47	18.85	12.47	23.24	21.59	12.38	0.6839
Gujarat	35.37	21	16.97	11.66	5.18	4.46	4.33	1.02	0	2.22	11.04	15.64	12.18	17.12	29.47	12.34	0.7665
Maharashtra	38.27	14.08	16.69	13.13	8.52	6.06	2.46	0.79	0	1.36	10.73	17.69	19.56	22.77	16.17	11.73	0.7342
Karnataka	30.76	17.97	22.49	13.9	6.69	5.12	2.34	0.72	0	1.66	14.41	19.28	16.2	20.95	16.13	11.37	0.7221
Kerala	36.74	49.52	9.3	3.33	0.44	0.58	0.1	0	0	20.49	27.15	26.27	6.38	14.9	4.81	0	0.7781
Tamil Nadu	55.43	21.2	13.65	5.64	2.16	1.3	0.6	0.02	0	6.62	25.12	23.53	15.66	15.01	13.44	0.63	0.8401
Andhra Pradesh	48.75	16.55	17.42	9.09	4.06	2.63	1.04	0.47	0	3.2	17.92	20.06	14.97	16.88	12.69	14.29	0.8072
Orissa	31.07	32.33	22.96	9.17	2.6	1.26	0.56	0.04	0	10.82	30.82	26.79	12.9	9.91	7.54	1.21	0.6986
West Bengal	34.69	42.71	15.81	5.4	0.97	0.33	0.09	0	0	20.04	37.77	26.95	8.41	4.64	2.2	0	0.7361
Bihar	31.01	42.49	16	7	1.98	1.09	0.29	0.13	0	13.36	27.69	25.62	12.51	10.95	5.18	4.7	0.7636
Jharkhand	18.43	41.62	23.99	11.57	2.57	1.24	0.35	0.23	0	13.63	28.25	28.49	11.83	8.9	3.99	4.9	0.6431
Sikkim	37.96	22.7	27.64	9.35	1.32	0.6	0.43	0	0	8.33	41.31	32.25	7.15	5.12	5.82	0	0.6814
Assam	23	35.84	24.33	13.38	2.6	0.56	0.3	0	0	10.24	32.55	36.69	12.71	4.3	3.49	0	0.6210
Meghalaya	19.93	21.7	31.01	16.05	4.92	4.17	2.19	0.03	0	3.29	22.43	26.04	13.52	18.13	16.19	0.4	0.6277
Mizoram	6.67	11.64	43.39	26.08	9.19	2.04	0.53	0.45	0	0.36	26.05	32.6	17.7	6.17	3.72	13.39	0.5195
Manipur	13.53	41.52	31.93	10.77	2	0.23	0.02	0	0	12.78	46.17	28.62	9.91	2.31	0.21	0	0.5453
Nagaland	10.85	15.21	35.76	30.72	5.16	2.32	0	0	0	3.35	28.63	46.13	12.95	8.95	0	0	0.4354
Tripura	33.22	47.7	16.01	2.48	0.5	0.09	0	0	0	22.89	50.94	18.18	6.29	1.7	0	0	0.7136
Arunachal Pradesh	22.59	14.53	16.77	23.8	11.43	9.24	1.63	0.01	0	1.19	10.43	28.68	22.66	28.52	8.48	0.05	0.5866
India	31.12	29.82	18.97	10.68	4.22	3.06	1.6	0.52	0	5.11	16.89	20.47	13.94	16.59	15.21	11.77	0.7605

Ownership holdings have been defined to include all land other than the homestead land and the cultivated part of the homestead land.

Hill states like Himachal Pradesh and Uttaranchal, most north-eastern states, and Rajasthan have a relatively lower level of landlessness (between 20 and 35 per cent).

### Extreme Inequality in Ownership

The distribution of ownership holding of land in India is extremely unequal. The figure (p 46) shows the Lorenz curves of ownership holdings of land other than homestead land for 2003.<sup>1</sup> In 2003, the Gini coefficient of ownership holding of land (land other than homesteads) in India was about 0.76. In comparison, the official estimate of the Gini coefficient, based on ownership of all types of land, was 0.73. State-level estimates of Gini coefficient of ownership of land are provided in Table 2 (p 46). These estimates show that the inequality in ownership holdings varies considerably across different states. Inequality in ownership of land was the highest in Tamil Nadu, Punjab, Haryana and Andhra Pradesh, the states that were earlier noted for the highest levels of landlessness. The Gini coefficient was higher than 0.8 in each of these states.

Table 2 also shows, for each state, the proportion of households in different size-classes of ownership holdings and the proportion of area owned by households in each size-class. Table 2 shows that, in many states, a substantial share of land continues to be in the hands of large landowners (having more than say five hectares of land). States that are particularly noteworthy in this context are Punjab, Haryana, Gujarat, Maharashtra, Karnataka and Andhra Pradesh. Clearly, a substantial potential for land redistribution exists in these states. It may be noted that large landholding sizes in Rajasthan and in parts of some other states in central and western India are also associated with poor quality of land. In contrast, in Kerala, West Bengal and Tripura, three states where substantial land reforms have been implemented, a very small amount of land is now under large holdings. In general, the proportion of area under large landholdings tends to be relatively small in most states in the eastern and north-eastern India.

To further explore the potential of redistribution, I estimated the extent of surplus land in different states by assuming a uniform ceiling of 20 acres. It must be remembered that official surveys are likely to underestimate the extent of large holdings and therefore the extent of ceiling surplus land. At the same time, limitations of using a uniform ceiling limit across states are

obvious. Nevertheless, the exercise gives us ballpark estimates that are interesting and useful. Estimates based on the 59th round land and livestock survey show that if we assume a uniform ceiling of 20 acres, there is about 15 million acres of ceiling surplus land in India. To put this in perspective, this is more than three times the total amount of land that has ever been redistributed under land reform programmes in all states. Among the states that have a substantial amount of land above the 20 acre ceiling, particularly noteworthy are Rajasthan (5.9 million acres), Madhya Pradesh (1.8 million acres), Andhra Pradesh (1.8 million acres), Maharashtra (1.7 million acres), Karnataka (8,90,000 acres), Gujarat (7,50,000 acres), Haryana (5,56,000 acres) and Uttar Pradesh (4,71,000 acres). The availability of surplus land over the 20 acre ceiling is limited in West Bengal, Kerala and Tripura, three states which have already implemented land reforms in a substantial measure, and in all the north-eastern states.

As I have mentioned, because of the changes in the format of data collection, data from the 48th round survey conducted in 1992 and the 59th round survey conducted in 2003-04 are not strictly comparable. Comparisons become particularly problematic for states where cultivation on homesteads is important. At the all-India level, the comparisons can, at best, be seen as indicative of trends. With this caveat, if we look at the proportion of households that do not own any land other than homestead, we find that, for India as a whole, the extent of landlessness went up by as much as 6 percentage points between 1992 and 2003-04. The Gini coefficient of ownership of land other than homestead increased from about 0.73 to about 0.76 over this period.

The official statistics on ownership of land are extremely problematic. Agencies involved in collection of official statistics in India need to attend to this problem. In this article, I have presented estimates of landlessness and inequality in ownership of land that correct, within the limitations posed by methodology of data collection, some problems with the official estimates. These estimates suggest that over 40 per cent households in rural India do not own land. The inequality in ownership of holdings, on a scale of zero to one, is about 0.76. The data show that, on the one hand, about 40 per cent of rural households do not own land, and on the other, a large potential for redistribution land exists in many states.

#### NOTE

- 1 Lorenz curves are a graphical representation of inequality; farther is a Lorenz curve from the diagonal, or the line of equality, greater is the level of inequality. The proportion of area between the diagonal and the Lorenz curve to the total area under the Lorenz curve is a measure of inequality called the Gini coefficient. The Gini coefficient varies between 0 (perfect equality) and 1 (extreme inequality).

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