



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Vol XLV
No. 2

ISSN 0019-5014

APRIL-
JUNE
1990

INDIAN JOURNAL OF AGRICULTURAL ECONOMICS



INDIAN SOCIETY OF
AGRICULTURAL ECONOMICS,
BOMBAY

Distributions of Land Holdings from the National Sample Survey

S.D.Sawant*

I

INTRODUCTION

The National Sample Survey (NSS) is the most important and the major source of data on land holdings of households. Various rounds of NSS provide distributions of household ownership and operational holdings in India for different years. But as the conceptual framework and definitions used in different rounds are not uniform, direct inter-temporal comparisons based on unadjusted data on distributions of land holdings are not valid and sometimes lead to erroneous interpretations. The problem is not only of the comparisons between the rounds; but also of the analyses of the data from the same round based on inadequate understanding of the concepts and definitions used in collection of data. This is because different types of distributions of land holdings from the same round too are not comparable due to either differential units of observation or non-uniformity in coverage of land.

Our objective in the present paper is, therefore, two-fold. The first one is to examine the concepts and definitions used in various rounds of the NSS so as to infer about (a) mutual comparability of different types of distributions at a point of time and (b) inter-temporal comparability of each of them. Section II is devoted to such scrutiny of the NSS data. Secondly, in Section III we provide two illustrations from the existing literature of the mechanical use of the NSS data based on inadequate appraisal of methodology and conceptual framework adopted for collecting them. The discussion is specifically restricted to rural land holdings although by and large it is applicable to urban land holdings data too.

II

COMPARABILITY OF LAND HOLDING DISTRIBUTIONS

There are three different types of distributions of land holdings usually available from the National Sample Survey. They are the distributions of (a) household ownership holdings (D1), (b) household operational holdings (D2) and (c) operational holdings (D3).

With the exception of the latest Round, *i.e.*, the 37th Round of the NSS, for all other rounds (the 8th, 16th, 17th and 26th) the above-mentioned three separate distributions are available for rural and urban areas. Published results of the 37th Round so far provide only the first and the third, *i.e.*, distributions D1 and D3.

It is necessary to clarify in the beginning that the distributions D1, D2 and D3 are distinctly different and can neither be used interchangeably nor can be compared with each other. In respect of the first two, though the basic unit of observation is 'household' the coverage of area under these distributions differ in two significant respects. D1 is restricted to owned area of the household while D2 encompasses land under physical possession of the household either owned or leased in or both. Another distinct difference between D1 and D2 stems from the fact that D1 covers entirely non-agricultural holdings in addition to wholly or partly

*Professor of Agricultural Economics, Department of Economics, University of Bombay, Vidyanagari, Santacruz (East), Bombay.

agricultural holdings but D2 includes only the latter, *i.e.*, wholly or partly agricultural holdings. Thus all the households owning and/or having possession of purely non-agricultural lands are treated as non-operating households (*i.e.*, zero operators) under the distribution D2.

In contrast to the differential coverage of area under D1 and D2, the coverage is uniform in the case of D2 and D3 as both D2 and D3 include wholly or partly agricultural holdings only. Yet, comparison between D2 and D3 is not possible. This is because D2 represents a distribution of operational holdings of the households but D3 covers all the individual and joint operational holdings irrespective of whether operated by one or more than one household. In this context, an operational holding is defined as "a techno-economic unit used wholly or partly for agricultural production and is operated (directed/managed) by one person alone or with the assistance of others without regard to title, size or location. By technical unit it is understood in the context of agricultural operations, as a unit with more or less independent technical resources covering items like land, agricultural equipments and machinery, draught animals etc." (*Sarvekshana*, July 1988, p.25). Thus it is clear that D2 differs from D3 with reference to the unit of observation which is household under D2 but a single techno-economic or technical unit in respect of D3.

To conclude, D3 differs from D2 only in respect of the unit of observation but is non-comparable with D1 both in terms of the unit of observation and coverage of area. The features or parameters of one type of distribution, therefore, cannot be directly compared with those of the other either at a point of time or over the different rounds. For the same type of distribution inter-temporal comparison can, however, be made provided, of course, concepts and definitions used therein have remained unchanged over the rounds. This brings us to the scrutiny of definitions and coverage of 'owned land', 'operated land', etc., as used under various rounds of the NSS.

The Appendix shows that the concept of 'owned' land as against 'operated' land is relatively more comprehensive as owned land includes land (whether cultivable or not) (Government of India, 1961, p.10) put to (a) entirely non-agricultural use (*e.g.*, occupied by buildings, paths, etc., or under water, canals, etc.); (b) entirely agricultural use (*e.g.*, for growing crops, fruits, vegetables, flowers, plantation crops, under forest production in parcels of land, the production of livestock products, poultry products, fish, honey, rabbits, etc.) (Government of India 1967, p.7; *Sarvekshana*, July 1988, p.26) and (c) a combination of the two uses, *i.e.*, (a) and (b).

The above-mentioned coverage of owned land, *i.e.*, land with permanent heritable possession with or without right to transfer the title remained unaltered over all the rounds except for one change introduced in the definition of owned land by which 'land with owner-like possession' was also included in owned land in the 16th Round. Thus the land held in owner-like possession under a long-term lease or assignment (*e.g.*, village land possessed by a tribal with traditional tribal rights or a community land operated customarily by a tenant for a long period) also became a part of the land owned by the household since 1960-61. Obviously, household ownership distribution given by the 8th Round is not strictly comparable with that derived from any of the successive rounds owing to the following reasons:

(i) The distribution given by the 8th Round treats owners of 'the lands with owner-like possession' as 'landless' and to that extent inflates the 'landlessness' in comparison with the successive rounds.

(ii) It excludes 'land with owner-like possession' from the ownership of households possessing both types of land, *i.e.*, land with permanent heritable possession and also with

owner-like possession and thereby under-estimates their ownership.

However, from the 16th Round onwards the distribution of household ownership holdings remained comparable between the rounds.

In respect of 'operational holding' the coverage of 'operated land' underwent a significant change in 1960-61 and a marginal change in 1982. In the 8th Round of the NSS, an operational holding consisted of all lands whether cultivable or not or put to agricultural uses or not. In contrast to this definition, from the 16th Round onwards an operational holding covered the lands used 'wholly or partly for agricultural production alone'. Obviously, a household possessing a holding constituted by lands put to 'non-agricultural uses only' was treated as a household operating the land in 1953-54 but since 1960-61 it was treated as a household operating no land and therefore was classified as zero operator. Consequently, all such zero operators were put in the lowest class of the household operational holding distribution from 1960-61 onwards and were thus mixed up with the marginal operators operating less than one hectare, thereby inflating their number in comparison with the 8th Round. This is true not only for the distribution of household operational holdings (D2), but is equally so for the distribution of operational holdings (D3). Thus with reference to both D2 and D3 comparison of the 8th Round with any of the successive rounds would be faulty.

Subsequently, in the 37th Round of the NSS, the definition of operated land was altered to include 'land encroached or operated on squatter basis'. But, since the extent of such lands was found to be negligible (its proportion in the total operated area as estimated in the 37th Round was 1.74 per cent) (*Sarvekshana*, July 1988, p. S-60, Table (5)) comparability of the distribution of operational holdings (D3) given by the 37th Round with that from each of the 16th, 17th and 26th Rounds remained by and large unaffected.

Finally, it may be mentioned that the distribution of operational holdings (D3) is also available from the Agricultural Censuses of 1970-71 and 1980-81. However, they are not comparable with the D3 obtained from the NSS for more than one reason. Considerable divergence between the operational holdings distribution obtained from these two sources arises from:

- (i) Exclusion of 'residential area' from the total area of the operated holding under Agricultural Census but its inclusion in the NSS.
- (ii) Exclusive reliance of the Agricultural Census on the methodology of retabulation of the holdings from the existing land records of the States and the consequent possibility of this *de-jure* position being different from the *de-facto* position of operational land holdings, mainly due to the existence of non-recorded tenancy, lack of updating of land records, etc.
- (iii) Likely over-enumeration of joint holdings (in lower classes) in the Agricultural Census.
- (iv) Inclusion of non-household holdings such as of temples, trusts, etc., under the Agricultural Census method but their exclusion under the NSS, it being the survey of only the households.¹

III

ILLUSTRATIONS

From what has been stated in Section II, it should be obvious that the inferences drawn from the comparison of distribution of household ownership holdings (D1) with that of operational holdings (D3) given by the different rounds of the NSS could be erroneous. The problems of comparability are, in fact, much more serious and unsurmountable when the

distributions are taken from two different sources, *i.e.*, one from the NSS and the other from the Agricultural Census. Yet, even the official publications sometimes overlook this fact and draw incorrect inferences from their comparisons. Comments offered on changes in the asset structure in the Mid-Term Appraisal of the Seventh Five Year Plan (Government of India, 1988) provide an illustration of such erroneous use of data on land holdings.

The above-mentioned mentioned document of the Planning Commission compares distribution of ownership holdings with that of operational holdings (see Table I) and argues:

"A third feature worth nothing is the fact that the number of marginal ownership holdings is much higher than the number of marginal operational holdings. This suggests that some of the marginal farmers who own land, lease it out to others for cultivation and themselves work for wages on a full time basis" (Government of India, 1988, p.29).

TABLE I. STRUCTURE OF LAND HOLDINGS

(1)	Ownership holdings		Operational holdings	
	1971-72 (2)	1982 (3)	1970-71 (4)	1980-81 (5)
No. of holdings ² (million)	70.01		88.88	
Percentage distribution of number of holdings				
1. Marginal (less than 1 ha.)	62.60	66.6	50.0	56.4
2. Small (1-2 ha.)	15.50	14.7	18.9	18.1
3. Others (above 2ha.)	21.90	18.7	31.1	25.5

Source: Government of India (1988, Table 2.1, p. 30).

It is evident from the years mentioned and the figures of the percentage distribution in Table I that the Planning Commission has used household ownership holdings distribution (*i.e.*, D1) from the 26th and 37th Rounds of the NSS and the operational holdings distribution (equivalent to D3) from the Agricultural Census of 1970-71 and 1980-81. The former distributions, *i.e.*, of household ownership holdings cover all the rural households, both landless and land owning, irrespective of whether land owned is under agricultural or non-agricultural uses. It is, therefore, evident that the class of marginal ownership holdings includes (a) landless households which are either agricultural labour or pure tenant households, (b) other households dependent on non-agricultural land and (c) the households owning wholly or partly agricultural lands. As against this, the distributions for 1970-71 and 1980-81 are not for the households but they are the distributions of operational holdings provided by the Agricultural Census of the respective years. Hence, it would be quite wrong to compare the number of households from the marginal ownership class which includes both zero owners and owners of entirely non-agricultural lands, apart from the owners of agricultural lands, with the number of marginal operational holdings (*i.e.*, marginal farms and not farmers) which are wholly or partly agricultural and essentially non-zero. Quite obviously, the Planning Commission's interpretation (in the quotation reproduced above) that the marginal owners (Table I) are marginal farmers and that some of them "who own land lease it out to others for cultivation and themselves work for wages" represents a distortion of reality. The lesson is that it is erroneous to compare the non-comparable distributions.

As an attempt towards better understanding of reality, we would like to put forth three specific propositions. One, the share of ownership holdings reporting ownership of non-agricultural and forest lands (totally or partially) in the total number of holdings must be

significant in the rural area. Secondly, the share of area under forest and non-agricultural uses to the total area owned is unlikely to be negligible in the aggregate for all the size classes and particularly in respect of marginal size class. Lastly, the phenomenon of leasing out may not be a dominant feature of the class of marginal owners, as is being generally argued in the literature.

To verify the above statements, we use the elaborate data available from the 16th Round of the NSS. The proportion of ownership holdings reporting area under forest and non-agricultural uses for all the size classes was found to be 89.64 per cent in 1960-61. The corresponding percentage for the marginal class was 89.46. Further, the share of area under forests and non-agricultural uses in the total area owned by the marginal holdings was 9.15 per cent. Again, it can also be examined whether the majority of marginal owners were leasing out their lands or not. Of the total owners (excluding the landless) in the marginal class, the proportion of households leasing out was just 6.6 per cent. In all the other classes of ownership this proportion was found to vary from a minimum of 11.51 per cent to a maximum of 24.71 per cent, *i.e.*, invariably higher than the figure reported for the marginal class. Thus the NSS data for 1960-61 support all the three above-stated propositions (Government of India, 1970, Tables 6.0 and 9.0, pp. 45 and 65). In fact, the third proposition not only holds for 1960-61 but was found to be equally valid for the successive rounds, *i.e.*, for the 26th and 37th Rounds.³ The proportion of marginal owners leasing out their lands either partly or fully and the proportion of area leased out to the total area owned by them were 8.06 per cent and 8.17 per cent for 1971-72 and 4.93 per cent and 4.78 per cent for 1982 respectively (Government of India, 1976, Table 3, p.39; *Sarvekshana*, October 1987, Tables 4.1 and 4.2, pp. S-60 and S-74).

Likewise, it is rather disturbing to find that even the research studies which are otherwise good in terms of their analytical contents do not pay enough attention to the limitations of the basic data and consequently misinterpret them. We shall discuss for illustration, in this context, the use of NSS data in one of the major World Bank research studies (Singh, 1988). The author classifies rural households in a four-way classification using household ownership holding and household operational holding distribution for 1960-61 and 1970-71 and extrapolates the same for 1980-81, assuming that the past trends would continue. His table is reproduced below:

TABLE II. AGRARIAN PROFILE AND LANDLESSNESS IN RURAL INDIA
(household numbers in million)

Operating land (1)	Owning land (2)	Not owning land (3)	Total (4)
(a) NSS 1960-61	51.81 (71.5)	1.62 (2.2)	53.40 (73.7)
(b) NSS 1970-71	54.70 (69.8)	2.20 (2.8)	56.90 (72.6)
(c) (Est.) 1980-81*	64.38 (67.0)	3.33 (3.47)	67.70 (70.5)
	(Group A)	(Group C)	(A + C)
Not-operating land			
(a) NSS 1960-61	12.20 (16.8)	6.80 (9.4)	19.00 (26.3)
(b) NSS 1970-71	16.10 (20.5)	5.40 (6.9)	21.50 (27.9)
(c) (Est.) 1980-81*	23.60 (24.56)	4.78 (4.97)	28.38 (29.5)
	(Group B)	(Group B)	(B + D)
Total			
(a) NSS 1960-61	69.00 (88.3)	8.46 (11.7)	77.46(100.0)
(b) NSS 1970-71	70.80 (90.3)	7.60 (9.7)	78.40(100.0)
(c) (Est.) 1980-81*	87.98 (91.6)	8.11 (8.9)	96.10(100.0)
	(A + B)	(C + D)	(A+B+C+D)

Source: Singh (1988, p.43).

* Based on extrapolation of the past trends.

The author calls those who own land but do not operate it, *i.e.*, Group B as 'non-cultivating landlords' (Singh, 1988, p. 42). This is an incorrect interpretation as the category of owning but not operating includes three types of rural households, namely,

- (i) those who own land and use it for non-agricultural purpose and hence do not operate, *i.e.*, cultivate.
- (ii) those who own land but lease out either fully or partly for non-agricultural uses and not for cultivation.
- (iii) those who own land but lease it out fully for cultivation or lease out that part of the holding which is put to agricultural use.

Among the above three types, only the third category can be treated legitimately as the category of non-cultivating or absentee landlords in agriculture. In fact, the author has followed Minhas (1970) while constructing the above-mentioned four-way classification of households and borrowed the statistics for 1960-61 from the study of Minhas which too refers wrongly to households in Group B as 'absentee landlords'. The confusion basically arises out of a failure to recognise explicitly that the distribution of household ownership holdings covers all lands, agricultural or non-agricultural, cultivable or non-cultivable, whereas the operational holdings of households by definition must be either wholly or partly agricultural.

In this context, it may be interesting to examine the author's inference about access to land in the rural areas, particularly with reference to the trend in the proportion of owning but non-operating households, *i.e.*, households in Group B.

"The rise in the total number and proportion of rural households not operating land was accounted for by non-operating owners of land; these households did have access to land - however small their plots - but chose to lease it out"⁴ (Singh 1988, p. 44) (emphasis added).

Empirical evidence does not support this inference. The proportions of the number of households from 'marginal' and 'small' ownership classes leasing out land either fully or partly were found to be 8.06 and 12.1 per cent respectively whereas the percentage of area leased out to area owned by them were just 8.19 and 6.86 per cent in 1970-71 (*i.e.*, in the 26th Round) respectively (Government of India, 1976, Table 3, p. 39).

It is clear that Singh identifies Group B as consisting of 'non-cultivating landlords' presuming that they are non-operators because they must be leasing out whatever small plots of land they own. The validity of this presumption must be examined as the category 'B' constitutes a significant proportion of the rural households. In 1960-61 and 1971-72 their shares in the total number of households were 16.8 and 20.5 per cent respectively. Furthermore, the share of Group B must have increased thereafter and would continue to increase in future. We feel that it is a serious mistake to call the owners in Group B as non-cultivating or absentee landlords as only a small and declining proportion of them lease out their land fully in the rural areas. It is equally wrong to infer that Group B must be dominated by non-cultivating labour households unless occupationwise detailed break-up of Group B is available. Many of them may be dependent on professions or non-manual employment in non-agricultural sectors. For example, the percentage of rural households other than the self-employed in agriculture and agricultural labourers was found to be 26.58 per cent in 1982 (*Sarvekshana*, October 1987, Table 2, p. S-32) and it must have increased further since then.

Thus it is quite evident from the above discussion of the two illustrations that mechanical comparisons of land holding distribution may lead to dubious interpretations, if care is not taken to comprehend fully the conceptual framework on which these distributions are based.

APPENDIX
CONCEPT AND COVERAGE OF OWNED/OPERATED LAND UNDER NSS ROUNDS

Type of land	8th Round July-April 1954-55	16th Round July-August 1960-61	17th Round September-July 1961-62	26th Round July-September 1971-72	37th Round January-December 1982
I. Owned land	Land (whether put to agriculture or non-agricultural uses) held with the right of permanent and heritable possession.	Land (whether put to agricultural or non-agricultural uses) held with the right of permanent and heritable possession and also land with owner-like possession.		Same as in the 16th and 17th Rounds.	Same as in the 16th and 17th Rounds
II. Operated land	All land (cultivable or not) owned and leased in, whether put to agricultural or non-agricultural uses.	Land owned and leased in but put to wholly or partly for agricultural production only.		Same as in the 16th and 17th Rounds.	Land owned and leased in and also encroached land operated or operated on squatter basis.

Note:-Agricultural production includes crop production, livestock production, poultry enterprise and other production, e.g., relating to vegetables, flowers, forest trees in parcels, fish, honey, pisciculture, etc.

NOTES

1. For an elaboration of this comparison, refer to Sanyal (1976).
2. Table 2.1 in the Planning Commission's document (Government of India, 1988, p.30) does not provide figures of number of holdings for the years 1980-81 and 1982. Besides, the figures of households/holdings given for 1971-72 and 1970-71, namely, 70.01 million and 88.88 million respectively too are wrong. They should be replaced by 78.4 million households (1971-72) and 70.49 million holdings (1970-71).
3. Data regarding the extent of ownership of non-agricultural land are not available from the 26th and 37th Rounds of the NSS.
4. This inference has a striking resemblance to the comments made in the Planning Commission's document on the Mid-Term Appraisal of the Seventh Five Year Plan (Government of India, 1988, p.29) that the number of marginal ownership holdings is much higher than the number of operational holdings, suggesting that some of the marginal farmers who own land lease it out to others for cultivation and themselves work for wages on a full time basis. The only difference is that both Minhas and Singh call them non-cultivating or absentee landlords whereas the Planning Commission implies that they must be non-cultivating labourers.

REFERENCES

- Government of India (1961). National Sample Survey: Eighth Round: July 1954-April 1955, Number 36-Report on Land Holdings (Some Aspects of Ownership Holdings), Cabinet Secretariat, New Delhi.
- Government of India (1967). National Sample Survey: Sixteenth Round: July 1960-June 1961, Number 113-Tables with Notes on Agricultural Holdings in Rural India, Cabinet Secretariat, New Delhi.
- Government of India (1970). National Sample Survey: Sixteenth Round: July 1960-June 1961, Number 159-Tables with Notes on Some Aspects of Land Holdings in Rural India, Cabinet Secretariat, New Delhi.
- Government of India (1976). National Sample Survey: Number 215-Twenty-Sixth Round: July 1971-September 1972-Tables on Land Holdings-All India, Vol.I, National Sample Survey Organisation, Department of Statistics, Ministry of Planning, New Delhi.
- Government of India (1988). Seventh Five Year Plan 1985-90: Mid-Term Appraisal, Planning Commission, New Delhi.
- Minhas, B.S. (1970). "Rural Poverty, Land Redistribution and Development Strategy", *Indian Economic Review*, Vol.5 (New Series), No.1, April.
- National Sample Survey Organisation (1987). "A Note on Some Aspects of Ownership Holdings : NSS 37th Round (January-December 1982)", *Sarvekshana*, Vol.11, No.2, Issue No.33, October.
- National Sample Survey Organisation (1988). "Note on Some Aspects of Operational Holdings", *Sarvekshana*, Vol.12, No.1, Issue No.36 July.
- Sanyal, S.K (1976). "A Review of the Conceptual Framework of Land Holdings Surveys", *Indian Journal of Agricultural Economics*, Vol.31, No.3, July-September.
- Singh, Inderjit (1988). Land and Labour in South Asia, World Bank Discussion Papers No 33, The World Bank, Washington, D.C., U.S.A.