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DYNAMICS OF LAND DISTRIBUTION :
AN ALTERNATIVE APPROACH AND ANALYSIS
WITH REFERENCE TO KERALA

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Introduction : Scope, Methodology and Data Source

The present exercise is primarily exploratory in nature; it does not attempt to provide a comprehensive explanation of the dynamics of land distribution. The conclusions drawn are preliminary and tentative and aimed only at indicating the need for reformulation and redesigning the approach to analyses of changes in land distribution.

The major purpose and the point of departure of the present study is thus to provide a general methodological critique of the conventional approach to the study of changes in land distribution and the inferences drawn, assertions made and speculations attempted, on their basis. By conventional approach we mean, analysis based on comparisons of standard size-class distributions of land at two (or more) time points drawn from different samples and the making use of summary measures of inequality.

The analytical focus of the alternative approach may be put as follows: the concern is with the pattern of intra-generational economic mobility of agricultural households as a proximate explanation for changes in land distribution. Intra-generational economic mobility is taken to mean the mobility (upward or downward) of the household with respect to size-class of operated
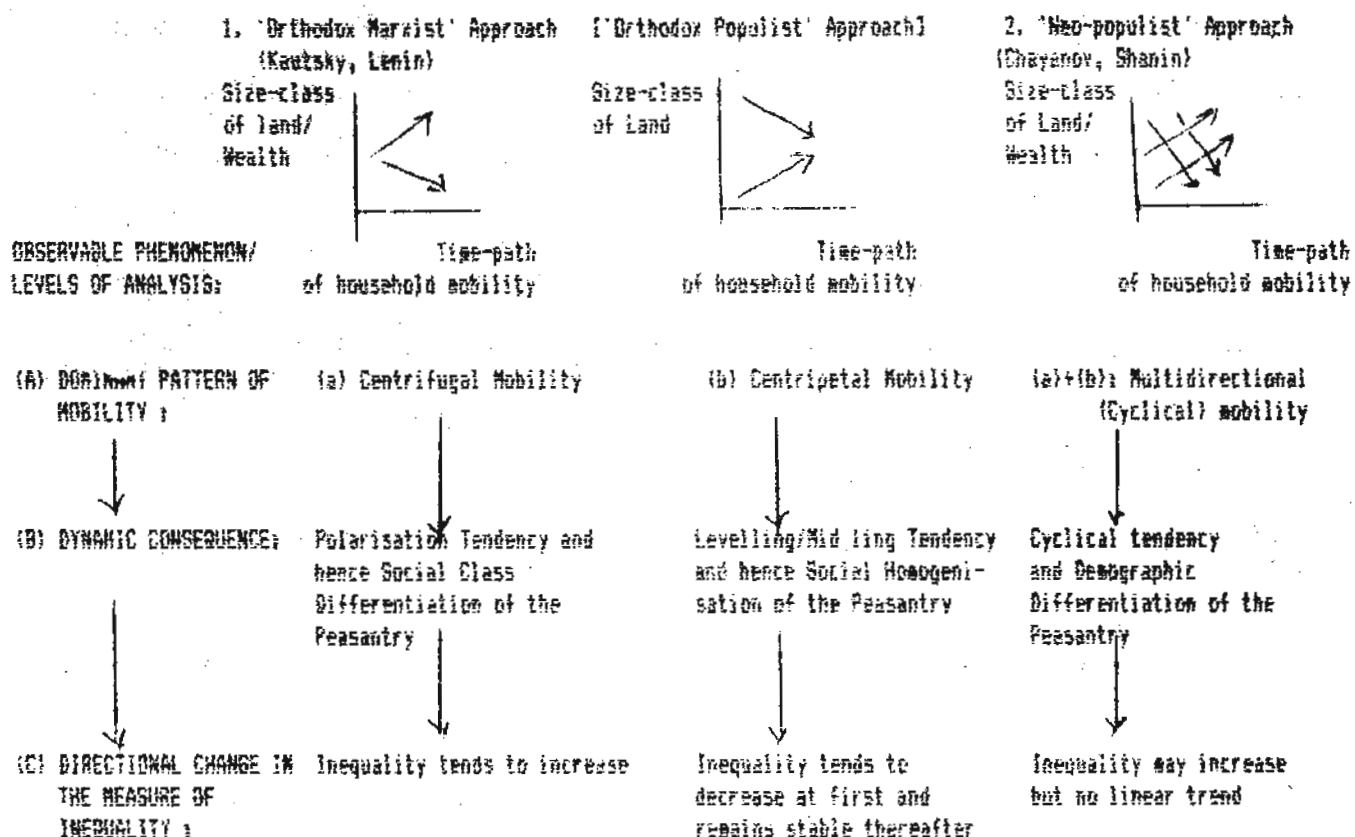
area during the life time of the head of the household. We need to mention here that the immediate inspiration for adopting such an analytical focus for an analysis of land distribution has come from a study of Mead Cain,[1] whose results on intra-generational changes in land distribution for other parts of India as well as for Bangladesh, as explained in the end, will bear some interesting comparison with our results for Kerala. More generally, we have been inspired by the dynamic methodology in the studies of the Russian peasant society by A.C. Chayanov and T. Shanin.[2]

In order to further clarify the scope of our analysis and the logic of the method on which it is based, let us look more closely at two aspects of our approach : substantive and methodological.

As regards the substantive aspect, we need to clarify what it is that has motivated the focus of our analysis. In this connection, we need to note that the empirical literature on peasant economic mobility has largely been guided by two contrasting approaches, namely, the orthodox Marxist and the neo-populist. Some essential elements of these two approaches are set out in Fig. 1 for illustrative purposes from the point of view of our analysis[3]; the relationship of the scope of analysis of the present study to these two approaches also would be clarified in the process.

Fig. 1

Two Contrasting Theoretical Approaches to Studying the Dynamics of Peasant Mobility
(for certain illustrative purposes)

1. 'Orthodox Marxist' Approach (Kautsky, Lenin)	['Orthodox Populist' Approach]	2. 'Neo-populist' Approach (Chayanov, Shanin)
Size-class of land/ Wealth	Size-class of Land	Size-class of Land/ Wealth

OBSERVABLE PHENOMENON/ LEVELS OF ANALYSIS:

Time-path of household mobility	Time-path of household mobility	Time-path of household mobility

(A) DOMINANT PATTERN OF MOBILITY :	(a) Centrifugal Mobility	(b) Centripetal Mobility	(a)+(b): Multidirectional (Cyclical) mobility
(B) DYNAMIC CONSEQUENCE:	Polarisation Tendency and hence Social Class Differentiation of the Peasantry	Levelling/Middling Tendency and hence Social Homogeni- sation of the Peasantry	Cyclical tendency and Demographic Differentiation of the Peasantry
(C) DIRECTIONAL CHANGE IN THE MEASURE OF INEQUALITY :	Inequality tends to increase	Inequality tends to decrease at first and remains stable thereafter	Inequality may increase but no linear trend

Note: In the above scheme, the word 'orthodox' is used to denote a theoretical approach based on specific historical conjunctures, but assumed to be universally applicable.

Under the 'Orthodox Marxist' approach, the dominant tendency is for peasant households to move away from the centre of the distribution in both directions ['centrifugal mobility']. This has the dynamic consequence of producing a polarisation tendency within the peasantry which leads to its social class differentiation and increase in the inequality of land/wealth. The orthodox neo-populist approach envisages a contrary pattern in which households at the extremes of the distribution tend to move towards the centre ['centripetal mobility']. This has the dynamic consequence of leading to a bulging of the middle of the distribution which, in turn, is reflected in diminishing degree

of inequality. In the neo-populist approach, the pattern of mobility is a combination of centrifugal and centripetal patterns of mobility giving rise to a pattern of multi-directional mobility. Multi-directional mobility has the dynamic consequence of producing neither a polarisation nor a middling tendency but only a cyclical tendency within the peasantry. This, in turn, may lead to an increase in inequality of land/wealth in certain phases of the cyclical movement, but no linear trend in inequality.

The present study, while it is concerned with an analysis of the pattern of mobility (a major element in the analytical structure of both the theoretical approaches described above) underlying the distributional change, will have only partial implications for these two approaches. This is so, because the scope of our analysis is inadequate to deal with the question raised by the two approaches regarding the dynamic socio-economic consequence of the pattern of mobility, without introducing class theoretic categories to capture production relations in the case of the orthodox Marxist approach and demographic parameters to capture life cycle factors in the case of the neo-populist approach.

On the other hand, our analytical focus on household mobility has been prompted by two specific considerations. First, an earlier study[*] attempted a decomposition of the change in the average area owned per household between 1971 and 1981 for individual states of India into three components; per capita land owned for different size-classes; average household size for

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different size-classes and distribution of households (proportion of households) in different size-classes. In almost all the states, household distribution emerged as the single most important component accounting for the observed change in the average size of owned land. This seems to suggest that household mobility across size-classes should be an important element in analysing changes in land distribution. Second, it would be important to see as to what extent the redistributive land reforms in Kerala initiated in the '70s would have changed the distribution of land by affecting the pattern of household mobility, particularly at the lower end of the land distribution scale.

If therefore it is true that the pattern of household mobility has to be an important component in any dynamic analysis of changes in land distribution, the crucial question arises: How do we generate appropriate dynamic data? That brings us to the methodological aspect of our analytical approach.

First of all, it is necessary to go beyond the standard data on changes in size-class distribution of land since they do not provide definite clues regarding the underlying pattern of household mobility. The essential problem here is that there is no unique, one-to-one correspondence between a certain observed change in land distribution and the underlying pattern of household mobility, i.e., "........ a particular pattern of distributional change is compatible with a wide variety of underlying patterns of economic mobility".[□] This possibility is in general brought out in Fig. 1, where an observed increase in

inequality is compatible with both centrifugal mobility as well as a more complex pattern of multi-directional mobility. The above point can be more concretely illustrated by looking at the size-class distribution of land for 1980-81 and 1986-87 given in Table 1. Let us start at the lower end of the scale where there has occurred an increase in both the proportion of, and area under, marginal holdings. It remains a matter of speculation as to how this might have come about through one or more of the following possibilities: upward mobility of previously landless households into this category through market or non-market means; consolidation of a certain proportion of households previously belonging to this category through acquisition of land; sub-division of holdings within this group; downward mobility of households previously belonging to higher size-classes through sub-division or loss of land via market/non-market channels, etc. Similarly, if we look at the large holdings category whose share in the number of holdings has declined and the area share has increased, one or more of the following things might have happened: downward mobility of some households previously belonging to this category through sub-division of land or through loss of land via market/non-market channels; consolidation of a certain proportion of holdings previously belonging to this group; upward mobility of certain households previously belonging to lower size-classes into this category, etc. Given these various possibilities, it becomes difficult to explain the observed increase in the summary measure of inequality of land distribution between 1980-81 and 1986-87 (Table 1; last row) in terms of, say, a simple pattern of centrifugal mobility.

Table 1

Percentage Distribution of Number of Holdings and Area Operated By Major Size Group of Holdings

Size group (in hectares)	1980-81		1986-87	
	No. of holding	Area	No. of holding	Area
Marginal holding (<1)	89.2	41.6	91.5	46.1
Small holding (1 - 2)	6.9	22.0	5.7	21.5
Semi-medium holding (2 - 4)	2.9	18.4	2.1	15.3
Medium holding (4 - 10)	0.9	10.9	0.5	7.4
Large holding (> 10)	0.1	7.2	.08	9.7
LORENZ RATIO	.609		.620	

Source: Government of Kerala, Agricultural Census 1985-86, Department of Economics and Statistics, Trivandrum 1989.

Given the limitation of the standard data on size-class distribution of land from the point of view of studying the dynamics of distributional change, there are three alternative methods available for generating dynamic data for this purpose. First, generation of panel or longitudinal data whereby the same sample of households is surveyed at two different time points. However, the typical problem with this method is that of `missing' households which can vitiate any analysis of change. The second method is that of a sample survey of households at one time point and reconstruction of the landholding position of the same households (and that of previous generations) at an earlier time point. The difficulty with this method is that a certain

proportion of sample households may not have come into existence
as independent households at the earlier specified time-point.

Thus, a third method - one which avoids the typical problems
of the first two methods and which we have followed in this study
- is that which focusses on _intra-generational_ changes and
accordingly generates appropriate dynamic data by a sample survey
of households into which the following two questions are
incorporated: `when did you start off with an independent
ownership/operational holding' (by way of separating from the
parent holding/household)? `How much land did you start off
with'? The second question suffices to reconstruct the land
distribution of what can be called `point of origin' for the _same_
sample of households and thus to study the dynamics of
distributional change.

In terms of a mental imagery, it is as if one is waiting
with a sample net for new households to get formed (as a result
of partitioning and splitting of households outside the sample
net as it were) and catching them at the point of origin. Each
household is thus entering the net with two tags: one the year in
which it is formed (`point of origin') and the other a certain
size of ownership/operated area. Once the sample net is filled
up, one is tracking the households down to the year of actual
survey, through a recording of their gain/loss transactions in
land.

One could immediately see a peculiar feature of this method
vis-a-vis the first two methods: unlike the first two methods,

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here one cannot fix the earlier time-point of the analysis. This is because different households in the sample would have originated at different points in time. Thus one is not studying changes between two identifiable time-points but between a notional point of origin (different years for different households) and the year of survey.

Another major difference that needs to be pointed out here is that the data generated by the first two methods typically conflates intra and inter-generational changes, whereas the third method focusses on intra-generational changes. One can think of a number of reasons why such a separation of the two types of changes is useful and a focus on intra-generational mobility is justified[6] : this approach produces more reliable data than the second method of reconstruction of land transactions of previous generations, this method of data generation is conceptually superior and unambiguous: "With intra-generational change in land assets, the unit of analysis is not in doubt; while if one tries to measure mobility across generations one is confronted by a "fork on the road" at the point of property partition among heirs. Does one follow the property (i.e., examine the collective fate of all heirs) or follow one of the heirs and his individual fate?"[7] Moreover, in a situation where the extensive margin has been reached and the rate of growth of population continues to be high, one would expect to find aggregate downward inter-generational mobility. This, of course, is not to say that inter-generational mobility has no important role to play in bringing about changes in land distribution,[8] but only to suggest that inter and intra-generational changes need to be separated

for the sake of analytical clarity.

Having discussed the scope and methodology of the study, we now turn to a brief description of the source of data used for analysis. The source of dynamic data used here is the Land Utilisation Survey done in 1987 as part of a study on Cattle Holdings in Kerala, covering 1080 households in 27 villages.[7] What we would like to point out here is that this survey was not conducted for the analytical purpose for which we are using it here and hence, from the point of view of the present purpose, this body of data has certain limitations which we shall discuss here.

First, regarding the way in which landholding at point of origin was arrived at. This was done on the basis of three questions: (a) When (in which year) did you start as an independent operational holding? (b) Are there any changes in the area owned and operated between then and now? (c) If yes, what were the various gain and loss transactions between the year of origin and the year of survey (1987)? From this, point of origin area was arrived at as 1987 Operated Area + Area Lost - Area Gained. But there was an important exception to this: if a household had come into existence prior to 1970, only the gain/loss transaction for the period 1970-87 were recorded. Thus, for those households which had come into existence prior to 1970, it is only their 1970 operated area which could be reconstructed and not their actual point of origin operated area. In this way the earlier reference point of the analysis of changes in land distribution which follows is the respective

years of origin ('Point of Origin') for those households which came into existence after 1970, whereas it is 1970 for those households which had come into existence prior to 1970. The focus, in any case, remains that on intra-generational changes.

The second point about the data source that needs to be mentioned here is that the Land Utilisation Survey, being part of a study on cattle holdings, purely landless households on the one hand and plantation estates on the other were purposively excluded from the sample frame. This has two implications: first, the crucial question of the mobility of landless households cannot be explored and second, the magnitudes of the inequality estimates would be biased downwards.

I. Pattern of Distributional Change

With these introductory remarks, we now move on to an analysis of the data. To start with, a two-way percentage distribution of sample households, by year of origin and by size-class of operated area at point of origin/in 1970, is presented in Table 2.

The purpose of this table is to have an idea regarding the time-profile of formation of households ('age composition' of the sample households) — for all households and for households in different size-classes, and also to see the initial landholding position of relatively old and new households. In terms of the imagery of the sample net described above, this table can be thought of as the filled-in sample net where the households have

occupied different cells depending on their respective years of
origin and the initial size of operated area.

Table 2

Two-way Percentage Distribution of Sample Households by Year of Origin and by Size class of Operated Area at Point of Origin/in 1970

Year of Origin	Size class (in acres) at Point of Origin/in 1970							Row Total	Average Operated Area (acres)
	< 0.10	.11-.25	.26-.50	.51-1.0	1.0-2.0	2.0-5.0	5 +		
By 1970	8.7	7.5	13.6	24.5	20.3	18.6	6.8	531	
	(27.1)	(48.4)	(51.4)	(55.3)	(54.3)	(55.8)	(63.2)	49.2	1.86
1971 - 1975	17.5	11.0	13.6	22.7	13.8	15.6	7.1	154	
	(15.9)	(17.2)	(14.3)	(14.4)	(18.1)	(13.3)	(19.3)	14.3	1.48
1976 - 1980	19.7	18.5	14.7	16.7	20.2	15.2	3.0	176	
	(22.9)	(21.2)	(20.7)	(14.0)	(20.1)	(16.7)	(10.5)	16.3	1.39
1981 & after	29.4	18.7	9.6	16.8	15.7	13.7	2.0	197	
	(34.1)	(21.1)	(13.6)	(15.7)	(15.6)	(15.0)	(7.9)	18.2	1.04
Column Total	170	99	140	235	199	180	57	1080	
	15.7	9.2	13.0	21.8	18.4	16.7	5.3	100.1	1.36

Note: (i) This and all subsequent tables are based on the Land Utilisation Survey Data (1987) referred to in the text.

(ii) Figures in parentheses refer to Column percentages

(iii) Under 'Row Total' and 'Column Total', the upper figures represent number of households and the lower figures represent percentage distribution of households.

(iv) In this and subsequent tables, operated area may be regarded as synonymous with owned area since in the case of Kerala, there is little leasing of land.

The time-profile of formation of households can be seen from
'Row Total' percentages: we find that nearly 50% of households
had come into existence by 1970 and the other 50% after 1970.
Thus 1970 emerges as the median year of formation of the sample
households. On the other hand, the size-classwise time-profile
(given by respective column percentages in Table 2, in
parentheses) reveals that there is a disproportionately large
number of old households in the top three size-classes and a
disproportionately large number of young households in the bottom
three size-classes, relative to the time-profile of formation of

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all sample households (as given by 'Row Total' percentages).

Thus, as regards the initial landholding position of old and new households, we find that the proportion of households in the bottom three size-classes increases, and in the top three size-classes decreases, as we move closer to the year of survey. This is clearly seen in Table 2A which is based on the row percentages in Table 2. Such a relative proliferation of smaller initial operated holdings among younger households is reflected also in a steady decline in the average size of initial operated area as the average age of the sample households decreases (Table 2, last column). This can be said to be a reflection of aggregate downward inter-generational mobility due to increasing scarcity of land as time passes by.

Table 2A

Two-way Percentage Distribution of Sample Households, by Two Broad Size-classes of Operated Area at Point of Origin/ in 1970 and by Year of Origin

Year of Origin	Size-class (in acres)		Total
	< .5	> .5	
By 1970	29.8	70.2	100.0
1971 - 1975	41.5	58.5	100.0
1976 - 1980	45.0	55.0	100.0
1981 & after	49.7	50.3	100.0

In order to study intra-generational distributional change, we can start by constructing two standard size-class distributions of land for the same sample of households, one for the initial reference point (point of origin/1970) and the other for 1987. This is presented in Table 3, Panel A. The measure of inequality shows only a slight increase. Looking at the change

in the share of land of different deciles (Table 3, Panel B), we find no clearcut pattern of relative gain/loss of land by different deciles. In any case, the problem of looking at distributional change in this manner is that because of upward or downward movement (intra-generational mobility) of different households, we cannot say how the distribution of land among the same (set of) households has changed over time, since the households which occupy a given size-class/decile would change as a result. In order to get at the distributional change for the same households over time, we have estimated the change in decile shares between point of origin/1970 and 1987 for an unchanging household distribution (Table 4). Here we find a somewhat clearer pattern of relative gain/loss in decile shares whereby the bottom five deciles have registered small gains and the wealthiest decile a slight loss, etc. The net result of all this is reflected in a slight decline in the intra-generational inequality of land distribution.

Table 3

Size class Distribution of Land, Lorenz Ratio and Decile Shares, at Point of Origin/in 1970 and in 1987

Panel A

Size class (at point of origin/ in 1970)	% of HHs	% of Area	Size class (in 1987)	% of HHs	% of Area
1	15.74	0.74	1	17.13	.87
2	9.17	1.14	2	9.16	1.17
3	12.96	3.31	3	13.24	3.54
4	21.76	10.87	4	20.65	10.68
5	18.42	18.17	5	16.57	16.34
6	16.67	33.34	6	18.52	37.87
7	5.27	32.43	7	4.72	29.02

Lorenz Ratio	(.576)	Lorenz Ratio	(.585)

Panel B

Point of Origin/1970 operated holding Decile	Decile Shares %	1987 operated holding Decile	Decile Shares %	Absolute Gain(+)/ Loss(−) in % share	Proportional Gain/Loss %
Poorest	.45	Poorest	.51	+0.06	+13.33
2	.81	2	.73	−0.08	−09.88
3	2.00	3	1.79	−0.21	−10.50
4	3.50	4	2.79	−0.71	−20.28
5	4.58	5	5.17	+0.59	+12.88
6	6.38	6	5.17	−1.21	−18.96
7	8.99	7	10.97	+1.08	+12.01
8	14.51	8	13.50	−1.01	−06.96
9	18.60	9	20.45	+1.85	+09.95
Wealthiest	40.18	Wealthiest	39.82	−0.36	−00.89

Table 4

Intra-generational Change in Decile Shares and in Inequality

Point of origin/1970 operated Holding Decile	Decile Shares (%)		Absolute Gain(+)/ Loss(−) in % shares	Proportional Gain/Loss %
	At point of origin/ in 1970	in 1987		
Poorest	.45	.50	+.05	+11.11
2	.81	.84	+.03	+03.70
3	2.00	2.04	+.04	+02.00
4	3.50	3.55	+.05	+01.43
5	4.58	4.64	+.06	+01.31
6	6.38	6.37	−.01	−0.15
7	8.99	8.89	−.10	−1.11
8	14.51	14.62	+.11	+0.75
9	18.60	18.67	+.27	+1.45
Wealthiest	40.18	39.82	−.36	−0.89
Lorenz Ratio	.576	.572		

II. Patterns of Household Mobility

Now, though the preceding analysis tells us how the relative share of the _same_ households has changed over time, this information by itself does not reveal fully the underlying

pattern of mobility of individual households. In order to get at

this, we have constructed a two-way percentage distribution of

sample households, by size-class of operated area at point of

origin/in 1970 and size-class of operated area in 1987 (See Table

5).

Table 5

Two-way Percentage Distribution of Sample Households, by Size-class of Operated Area at Point of Origin/in 1970 and Size-class of Operated Area in 1987 (Intra-generational Mobility Matrix)

Size-class at Point of Origin/ in 1970	Size class in 1987							Row Total
	1	2	3	4	5	6	7	
1	95.3	1.8	0.6	2.4				170
	(87.6)	(3.0)	(0.7)	(1.8)				15.7
2	11.1	73.7	6.1	6.1	2.0	1.0		99
	(5.9)	(73.7)	(4.2)	(2.7)	(1.1)	(0.5)		9.2
3	5.7	7.9	73.6	9.3	2.9	0.7		148
	(4.3)	(11.1)	(72.0)	(5.8)	(2.2)	(0.5)		13.8
4	1.7	3.8	18.6	72.8	8.1	3.8		235
	(2.2)	(9.1)	(17.5)	(76.7)	(10.6)	(3.5)		21.8
5		1.5	3.0	13.1	68.8	12.6	1.0	199
		(3.0)	(4.2)	(11.7)	(76.0)	(12.5)	(3.9)	18.4
6			1.1	1.1	9.4	86.1	2.2	180
			(1.4)	(0.9)	(9.5)	(77.5)	(7.8)	16.7
7				1.8		19.3	78.9	57
				(0.4)		(5.5)	(88.2)	5.3
Column Total	185	99	143	223	179	208	51	1088
	17.1	9.2	13.2	20.6	16.6	18.5	4.7	100.0

Note: (i) Figures in parentheses, represent column percentages
  (ii) Under 'Row Total' and 'Column Total', the upper figures represent
      number of households and the lower figures represent percentage
      distribution of households.
  (iii) Size class references as 1......7 in this and all subsequent tables
      correspond to size class ranges as given in the preceding table
      (Table 2).

This table essentially tracks down' the same households
(occupying different size-class positions as in Table 2 above) to
the year of survey in order to see how their respective size-
class positions have changed. We find that, in the aggregate,
the size-class position of as high as 78.3% of the sample
households has remained unchanged; 8.8% of the households have
experienced upward mobility and the remaining 12.9% have
experienced downward mobility. The size-classwise extent of
mobility (given by the respective off-diagonal row percentages in
Table 5) and of immobility (given by the respective diagonal row
percentages) is presented in a consolidated form in Table 5A.

Table 5A

Percentages of Households Experiencing Change/no Change in Size-class Category of Operated Area

Size-class of Operated Area at Point of Origin/in 1970	% of households experiencing		
	Upward Mobility	Downward Mobility	No change
1	4.8	–	95.3
2	15.2	11.1	73.7
3	12.9	13.6	73.6
4	11.1	16.1	72.8
5	13.6	17.6	68.8
6	2.2	11.6	86.1
7	–	21.1	78.9
Total	8.8	12.9	78.3

Here we find that in the lowest size-class, as high as 95.3%
of households remain in the same size-class position and only
4.8% of households experience upward mobility. The households in
size-class 2,3,4 and 5 experience more than the average extent of
upward mobility whereas the households in size-classes 3,4 and 5
experience more than the average extent of downward mobility. In

general, the extent of upward mobility diminishes and that of
downward mobility increases as we move up the size-class
categories. It is this which produces the (slight) decline in
the intra-generational inequality in land distribution (as seen
in Table 4).

III. Extent, Nature and Pattern of Gain/Loss of Land

It should, however, be noted that the mobility matrix
presented in Table 5 (and in a consolidated form in Table 5A)
gives us, in a sense, the net inter-size-class mobility in terms
of specified size-class ranges of operated area; this would then
hide the full extent of mobility in terms of the number of
households gaining/losing land within each size-class and the
extent of gain/loss of land. This information is presented in
Table 6. We thus find that, in general, the proportion of
households gaining or losing land (Table 6) is considerably more
than the proportion of households experiencing upward or downward
mobility (Table 5A), for all size-classes. As regards the net
gain/loss of land, we find that for all size-classes (except
size-class 5), there is a net loss of land, since area lost
exceeded area gained. However, the bottom four size-classes loss
proportionately more, and the top three size-class
proportionately less (size-class 5 has registered a net gain, as
we have seen), relative to their initial stock of land (Table 6,
last column).

Table 6

Gross and Net Gain/Loss of Land by Sample Households between Point of Origin/1970 and 1986, by Size-Class of Operated Area at Point of Origin/in 1978

(in acres)

Size-class (at point of origin/ in 1976)	Area Gained	No. of Gainer HHS	Area Lost	No. of Loser HHS	Net Gain(+) Loss (-)	Net Gain/ Loss as a % of Total area at point of Origin/ in 1978
1	6.16	28(12.5)	9.67	33(20.6)	- 3.51	-28.62
2	8.24	15(17.8)	9.47	26(29.5)	- 1.23	- 7.23
3	19.75	24(18.6)	23.14	40(31.0)	- 3.39	- 6.53
4	25.29	36(16.7)	40.38	68(26.4)	-15.89	- 8.56
5	36.62	44(22.2)	27.86	46(23.2)	+ 9.54	+ 3.16
6	38.18	39(18.1)	62.30	61(28.4)	-24.12	- 3.55
7	7.84	5(6.2)	33.74	16(20.4)	-25.90	- 4.35
Total	142.08	195(17.1)	205.76	282(26.1)	-63.70	- 3.48

Note: Figures in parentheses represent percentage of total number of households in each size-class.

In order to see the nature of transactions/transfers through which the sample households have gained/lost land, Table 7 presents aggregative information on the distribution of area lost/gained by type of loss/gain transactions. We find that sale transactions account for about 68% of area lost and purchase transactions account for nearly 80% of area gained. Second in importance come the gift transactions which account for nearly 23% of area lost and 13% of area gained. It should be noted that transfers through implementation of ceiling low account for only some 6% of area lost and 0.53% of area gained.[10] Since sale and purchase transactions emerge as the most important means of area lost/gained, we now turn to take a closer look at the nature (purpose of sale; source of finance for purchase of land; category of land use for purchased land) and pattern (size-classwise) of sale and purchase transactions.

Table 7

Area Transacted by Type of Transaction

Type	Area (acres)	%	No. of Transactions	%
(A) Loss Transactions				
i. Sale	138.41	67.26	247	79.94
ii. Ceiling Law	12.74	6.19	4	1.29
iii. Gifted	44.88	21.81	50	16.18
iv. Leased out	5.90	2.87	5	1.62
v. Other	3.85	1.87	3	0.97
Total	205.78	100.00	309	100.00
(B) Gain Transactions				
i. Purchase	112.40	79.11	165	80.49
ii. Ceiling Law	0.75	0.53	4	1.95
iii. Gift	17.70	12.46	23	11.22
iv. Leased in	2.80	1.97	2	0.98
v. Other	8.43	5.93	11	5.37
Total	142.08	100.00	205	100.00

Table 8

Two-way Percentage Distribution of Area Sold, By Size-class at Point of Origin/in 1970 and Purpose of Sale

Purpose of Sale	Size-Class at point of origin/in 1970							Row Total (%)
	1	2	3	4	5	6	7	
Fin. Paid Emp	0.00	0.00	0.00	0.32	3.00	3.40	0.00	
	(0.00)	(0.00)	(0.00)	(4.76)	(29.52)	(65.71)	(0.00)	1.52
Fin. Self Emp	12.14	0.85	0.84	3.95	4.25	3.87	12.49	
	(2.99)	(0.79)	(11.61)	(12.36)	(8.73)	(35.71)	(27.80)	7.28
Marriage Exp.	53.84	42.26	54.25	19.49	27.30	17.62	2.2	
	(3.83)	(11.57)	(18.47)	(27.03)	(16.51)	(21.12)	(1.46)	24.71
Medical Exp.	0.00	22.73	1.54	3.25	13.77	2.49	0.00	
	(0.00)	(29.32)	(2.51)	(14.24)	(39.00)	(14.11)	(0.00)	5.17
Acquisition of Land	6.07	1.62	3.86	8.04	15.17	9.27	0.00	
	(1.48)	(1.42)	(4.43)	(24.78)	(36.98)	(37.81)	(0.00)	7.34
Acquisition of Other assets	1.46	0.00	16.91	2.87	8.65	14.37	5.82	
	(3.87)	(0.00)	(16.79)	(5.54)	(15.26)	(49.78)	(9.63)	8.47
Fin. Education	0.00	1.00	0.51	3.76	18.41	5.52	4.09	
	(0.00)	(1.10)	(0.71)	(13.93)	(45.00)	(26.45)	(12.75)	6.11
Others	14.17	30.84	12.87	49.15	9.42	38.23	75.49	
	(0.04)	(5.22)	(2.7)	(28.25)	(3.57)	(28.44)	(31.11)	39.40
Column Total (%)	1.80	6.67	8.41	22.65	14.94	29.29	16.25	100.00

Note: Figures in parentheses represent Row percentages.

Table 8 presents the two-way percentage distribution of area
sold by size-class at point of origin/in 1970 and by purpose of
sale. We start with the column total percentages given at the
bottom of the table which represent the share of different size-
classes in the total area sold; here we find that, for the top
three size-classes, the share in the total area sold is 60%
whereas their share in point of origin/1970 operated area is 84%.
Conversely, for the bottom four size-classes, the share in total
area sold is 40% whereas their share in total initial operated is
only 16%.

We may now take a look at the size-classwise share in the area sold by purpose of sale (given by row percentages, in parentheses). We find that size-classes 4,6 and 7 account for a more than proportionate share (namely, 87.8%) in the area sold for the purpose 'others' relative to their share (namely, 68.2%) in the total area sold for all purposes. Such a disproportionate sale of land for the unspecified 'Others' category, it should be noted, mostly refers to sale of land with the objective of investing the proceeds elsewhere in the economy, presumably in lines which offer quicker and higher rates of return than agriculture. The motivation of size-class 5 behind sale of land stands out in this respect: this size-class accounts for as high as 45% of area sold for the purpose of financing education which is much higher than its share (namely, 15%) in total land sold for all purposes. It should be noted that no other size-class has such a disproportionate extent of sale of land for this purpose.

As regards sale of land with the purpose of acquisition of other assets, size-classes 6,3 and 5 account for nearly 82% of land sold for this purpose, whereas their share in total land sold comes to only about 55%; such a disproportionate extent of sale of land for this purpose is quite pronounced in the case of size-class 6 as well as size-class 3.

As regards sale of land with the purpose of purchase of other types of land, size-classes 6,5 and 4 account for about 93% of land sold for this purpose as against their share of only about 67% in total land sold; such a disproportionate extent of

sale of land for this purpose is particularly pronounced in the case of size-class 5.

Coming to sale of land for financing medical expenditure, size-classes 5 and 2 account for 69% of land sold for this purpose whereas their share in total land sold comes to only about 22%.

When it comes to sale of land for meeting marriage expenditure, each one of as many as five size-classes, namely size-classes 1 to 5, has a more than proportionate extent of sale of land for this purpose; together they account for nearly 75% of land sold for this purpose whereas their share in total land sold works out to only about 53%. Note that such a disproportionate extent of sale of land for this purpose is particularly pronounced for the bottom three size-classes.

A disproportionate extent of land sold for the purpose of financing self-employment is evident in the case of size-classes 7,6,3 and 1 ; together, they account for 78% of land sold for this purpose as against their share of 56% in the total land sold.

Finally, sale of land for financing the `search' for paid employment is accounted for mostly by size-classes 5 and 6; together, their share in total land sold for this purpose is 93% as against their share in total land sold for all purposes, namely, 44%.

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Having described the size-classwise share in total land sold for different purposes of sale, we now turn to a brief description of the purposewise sale of land for different size-classes. To start with, for all size-classes, the purpose 'Others' accounts for nearly 40% of all land sold; sale of land for meeting marriage expenditure comes second with a share of nearly 25%, whereas other purposes have more or less the same importance in total land sold (Row Total Percentages, Table 8). Next, the relative importance of different purposes of sale for any size-class are given by respective column percentages. This can be briefly described as follows: for the bottom three size-classes, marriage expenditure emerges as the predominant purpose of sale of land; in addition, sale of land for meeting medical expenditure for size class 2, and for financing self-employment for size-class 1, emerge as the next most important reasons. On the other hand, for size-classes 4,6 and 7, the 'Others' purpose predominates. The motivation for sale of land by households belonging to size-class 5 is altogether different and is not guided by any one consideration; for this size-class, meeting marriage expenditure, financing education, purchase of other types of land, medical expenditure, acquisition of other assets, in that order of importance, are relevant considerations in the decision to sell land.

Having seen the pattern and nature of sale transactions, we now turn to the pattern and nature of purchase transactions. Table 9 gives the two-way percentage distribution of area purchased by size-class at point of origin/in 1970 and by source of finance. To begin with, we look at the percentage share of

different size-classes in total land purchased, given under 'Column Total' at the bottom of the table; we find that the share of the top three size-classes in the total area purchased comes to 86% which is more than their share in the total initial operated area, namely, 84%. Conversely, for the bottom four size-classes, the share in total area purchased (12%) is less than their share in the total initial operated area (16%).

Table 9

Two-way Percentage Distribution of Area Purchased,
By Size Class at Point of Origin/in 1970 and Source of Finance

Source of Finance	Size class at point of origin/in 1970							Row Total (%)
	1	2	3	4	5	6	7	
Own Savings	31.75	55.36	12.96	57.27	47.53	61.79	38.89	52.68
	(.17)	(.51)	(.47)	(18.11)	(23.1)	(59.3)	(18.34)	
Remittances	0	0	0	21.85	11.67	13.68	9.39	12.07
				(15.17)	(21.2)	(53.3)	(18.34)	
Sale of assets	68.75	25.93	86.89	12.52	29.35	20.47	6.57	21.14
	(.92)	(.59)	(7.27)	(5.56)	(32.4)	(48.9)	(4.41)	
Loan from Govt/ coop. agencies	0	0	0	0	1.14	1.93	25.82	4.79
					(5.56)	(28.4)	(74.1)	
Loan from Commr. agencies	0	0	0	0	0	0	0	0
Loan from priv. source	0	0	0	0	0	1.76	0	.89
Others	0	18.52	6.94	9.18	10.38	.44	28.14	7.69
		(1.15)	(1.73)	(11.1)	(31.3)	(2.9)	(51.9)	
Column Total (%)	.28	.48	1.92	9.29	23.35	58.48	14.28	100

Note: Figures in Parentheses represent row percentages

Size-classwise shares in land purchased for different sources of finance are given in row percentages. Size-classes 7 and 5 account for 80.2% of land purchased by miscellaneous source of finance 'Others' as against their share of 37.5% in total land

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purchased. Size-class 7 has a share of 74% in land purchased by loan from govt./cooperative agencies as against its share of 14% in total land purchased. Size-classes 5,3,2 and 1 together account for 41% of land purchased by sale of other assets as against their share of 26% in total land purchased. Of course, size-class 6 accounts for a high 49% of land purchased through sale of other assets, but this corresponds to its share of 30% in total land purchased. Of the land purchased by remittances, size-classes 6 and 4 have a share of 68% as against their share of about 60% in total land purchased. Size-class 6 again accounts for as high as nearly 60% of land purchased through own savings which is more than its share of 50% in total land purchased.

Turning to the relative importance of different sources of finance, we find that, for all size-classes, own savings finance about 53% of total land purchased; sale of assets another 21% and remittances are only the third most important source of finance accounting for 13% of total land purchased. For different size-classes, the relative importance of different sources of finance is as follows: for size-class 7, own savings, loan from govt./ cooperative agencies and 'Others' predominate; for size-class 6, own savings, sale of assets and remittances predominate, for size-class 5, own savings and predominate; for size-class 4, own savings and remittances are relatively more important and for the bottom three size-classes, sale of assets (and own savings for size-class 2) is instrumental.

Having seen the nature and pattern of financing of land purchase, we can finally take a look at the pattern of use to which purchased land is put. One purpose of this is to see as to what extent diversion of agricultural land into non-agricultural use has taken place. Table 10 presents the two-way percentage distribution of area purchased by initial size-class of operated area and land use category. It turns out that the proportion of total land purchased for self-cultivation of crops is as high as nearly 93%; purchase of land for the purpose of buildings and courtyard accounts for only 5% of total land purchased. The importance of purchase of land for self-cultivation of crops is relatively more pronounced in the case of the three top size-classes, whereas the importance of purchase of land for buildings and courtyard is relatively more pronounced in the case of the bottom four size-classes.

Table 10

Two-way Percentage Distribution of Area Purchased, By Size Class at Point of Origin/in 1970 and Land Use Category

Land use Category	Size class at point of origin/in 1970							Row Total (%)
	1	2	3	4	5	6	7	
Buildings & Courtyard	31.25 (1.68)	27.78 (2.51)	12.96 (4.69)	18.71 (18.8)	3.23 (13.74)	6.16 (58.6)	.63 (1.68)	5.3
Self cultivation of crops	68.75 (.082)	72.22 (.604)	64.35 (.813)	89.29 (.889)	94.83 (23.98)	92.52 (58.57)	99.00 (14.42)	92.8
Perm. Pastures	0	0	0	0	0	0	0	0
Fallow	0	0	9.72 (34.4)	0	1.52 (65.6)	0	0	.54
Cult. waste	0	0	12.96 (27.2)	0	0	1.32 (72.8)	0	.71
Cult. land	0	0	0	0	.53 (100)	0	.38 (42.9)	.12
Column Total	.28	.48	1.92	9.29	23.35	50.48	14.2	100

Note : Figures in parentheses represent row percentages.

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Conclusions

What are the conclusions to be drawn from the above analysis of distributional change, pattern of mobility and extent, nature and pattern of gain/loss transactions in land? First, we would like to draw the following broad methodological inference: our methodological approach indicates both the necessity and the fruitfulness of going beyond the conventional approach based on the standard size-class distribution of land at two or more points in time for different samples. Such an approach is necessary in so far as it would minimise the elements of speculation, assertion and wrong inferences that often follow from the conventional approach; and fruitful since it opens up the possibility of addressing several questions left out in any exercise along the conventional approach.

The broad substantive inference of the paper may be put as follows: a great degree of overall stability of land distribution and of the underlying household distribution exists; nevertheless, beneath such stability lies a dynamic process of both upward and downward mobility of households in all size-classes. The extent of gain/loss of land and the nature and pattern of sale/purchase transactions in land underlying such process suggest that fine adjustments to changing conditions in the agrarian economy are taking place in the land market which should be examined closely.

The second substantive inference is in terms of the partial implication of our results for the two theoretical approaches to the study of peasant mobility sketched in Fig. 1; what we have

observed does not fit into either centripetal or centrifugal pattern of mobility. Rather, the pattern of mobility is multidirectional and is such as to give rise to an overall unchanging distribution of land.

Here it is useful to compare the above situation with the results of Mead Cain's study referred to earlier; the case of Kerala seems to fall neatly between that of Maharashtra and Andhra Pradesh (significant decline in intra-generational inequality and levelling tendency following distinct centripetal mobility) on the one side and Bangladesh (significant increase in intra-generational inequality and polarisation tendency following distinct centrifugal mobility) on the other. Therefore, the situation in Kerala regarding change in inequality of land distribution can be said to be not as bad as some people might suggest but, at the same time, it is not as creditable as perhaps many would be led to believe.

Lastly, studies of change in inequality of land distribution are significant since ownership of land is the critical determinant of income and wealth in agrarian economies. But to the extent that the rural economy undergoes economic diversification and structural changes, rural income distribution may not predominantly depend on, or accurately reflect, the pattern of land distribution. Significant changes seem to have taken place in Kerala in respect of diversification of the rural economy and the sources of household income: non-agricultural income is very significant even in agricultural households of all size-classes, more so for the lower size-classes (see Table 11).

Table 11

Source of Household Income of Sample Households, 1987

Size-class (in 1987)	% of household income originating in	
	Agriculture*	Non-agriculture**
1	14.40	85.60
2	21.76	78.24
3	22.88	77.12
4	26.39	73.61
5	27.79	72.21
6	41.84	58.16
7	59.64	40.36

*   Agriculture includes: Crop Production, Animal Husbandry and Fisheries

**   Non-agriculture comprises of: service, trade and business, remittance, rent, household industries, wages/salaries, interest/dividends, Gift/Prizes.

We shall now conclude our discussion by pointing out just two aspects with respect to which this paper is incomplete. First, it is admitted that we have not entered into an explanation of the upward and downward mobility of individual households in different size-classes as well as of the pattern and nature of sale/purchase transactions. As a starting point, such an explanation has to look into the following non-land characteristics of the sample households: non-land resource endowment; demographic characteristics; crop composition/crop economics; educational and occupational characteristics, etc.

Second, the implication of the observed pattern and nature of sale/purchase transactions in land for the efficiency of utilisation of resources and hence for labour productivity has not been discussed. These aspects need to be looked into for drawing definitive conclusions on questions relating to intra-generational mobility and its implications.

Acknowledgements

Notes and References

1. Mead Cain, "Risk and Insurance : Perspectives on Fertility and Inequality in Rural India and Bangladesh", Centre for Policy Studies (The Population Council) Working Paper, No. 67, April 1981; subsequently published in Population and Development Review, Vol. 7, No.3, 1981.

2. A.V. Chayanov, The Theory of Peasant Economy, ed. by D.Thorner, Basile Kerblay and R.E.F. Smith, Delhi : Oxford University Press, 1987; T. Shanin, The Awkward Class : Political Sociology of Peasantry in a Developing Society, Russia 1720-1925, London: Oxford University Press, 1972.

3. This figure is based on Shanin, op.cit., p. 76.

4. See K.N. Nair, K. Navaneetham and A.C. Dhas, "Structural Changes in Landholding in India : A Study based on NSS Data", Occasional papers and reprints. Indo-Dutch programme on alternatives in development, August, 1990.

5. Cain, op.cit., p. 18

6. Ibid., p. 9-18

7. Ibid., p. 9

8. For example, inter-class differences in the rate of population growth and in the rate of partitioning of households could be important factors in bringing about distributional change. See N. Krishnaji, "Land and Labour in India : The Demographic Factor", Economic and Political Weekly, Vol.XXV, Nos. 16 and 29 (May 5-12, 1990).

9. For a detailed discussion of the methodology used in the data collection see P.S. George and K.N. Nair, Livestock Economy of Kerala, Centre for Development Studies, Trivandrum 1990.

10. The lower proportion for area gained could be due to the absence of landless households in the sample, as pointed out earlier.