

**REGIONAL VARIATIONS IN THE AGRARIAN STRUCTURE
IN INDIA 1953-54 TO 1970-71**

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best of our knowledge and may be placed before the
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CHAPTER I

CHAPTER I

INTRODUCTION

1.1 Historical Evolution of Agrarian Structures

Agrarian structure can simply be understood at the economic structure of society, involving relationships between the owners of means of production (land and agricultural equipment) and the actual tillers of the soil. The person who owns land and equipment; the tenant who owns only equipment and tills others' land and the agricultural labourer who owns neither land nor equipment are the variants within these relationships. These relations are nothing but social relations of production, or property relations, in legal terms. As such, these relations of production refer to the mode of appropriation of surplus labour of the actual producers. Marx says "Social relations are intimately connected with the forces of production. In acquiring new forces of production men change their mode of production".¹ Here the forces of production refer to "The sources and tools which are used according to different technologies and involving various forms of

1

Bottomore and Rubel, Karl Marx - Selected Writings in Sociology and Social Philosophy, Penguin, 1982, p. 108.

cooperation between individual men in the process of production".² The interaction between the forces and relations of production is uniquely contradictory, leading to a continuous movement of growth of the former with the destruction of the latter thereby changing the mode of production.³ As such, the agrarian structure depends on the mode of production, at a definite stage of historical development of the society.

For Marx, the basis of socio-economic development lies in the generation of surplus in agriculture in pre-capitalist societies and even in capitalist societies. He says, "All development of capital has for its natural basis, the productiveness of agricultural labour.... An agricultural labourer productivity exceeding the individual requirements of labourer is the basis of all societies ... making ... available for exploitation in other spheres".⁴ For him, "in broad outline, the Asiatic, ancient, feudal

2 John Harris, Capitalism and Peasant Farming, Oxford, U.P., 1982, p. 15.

3 Bottomore and Rubel, op. cit., p. 109.

4 Karl Marx, Capital, Vol. III, Moscow, 1971, p. 785-86.

and modern bourgeois modes of production may be designated as epoch marking progress in the economic development of the society".⁵ Of these four modes, the Asiatic mode of production is the controversial one.⁶ This mode was thought to be the origin of further modes of production by Marx. In this mode, as in ancient Indian communities, "The land is tilled in common and the produce divided among the members".⁷ From this type of common property, the other types of property arose.⁸ Such type of communities, based on agriculture of animal husbandry are of primary form.

The ancient mode of production may be treated as slave society, wherein "it is only as community that citizens hold power over their labouring slaves and on this account

5 Karl Marx, A Contribution to the Critique of Political Economy, Moscow, 1978, p. 21. He deals with three forms of property in pre-capitalist societies - Tribal, Ancient and Feudal forms of property in German ideology.

6 In Asia, the mode of production was thought to be prevalent in the form of self-sufficient village communities, where the combination of agriculture and manufacture (handicrafts) led to unchangeableness.

7 Bottomore and Rubel (ed), op. cit., p. 122.

8 However, after Marx's death, Engels began to believe, "The typical form of primitive communism. ... identified not with Asia, but with the American tribes analysed by Morgan". See Daniel Thorner, Shaping of Modern India, Allied, 1981, p. 376.

alone, therefore, they are bound to the form of communal property.... The class relation between citizens and slaves is now completely developed*.⁹ Thus, in slave society the private property in land took its shape and the opposition between town and country arose. This led to wars to enslave communities or tribes for working on the lands of the slave masters. The slaves in this society did not have freedom even on their lives, and were seen as mere beasts by their lords. As the productive forces developed within this society, the class antagonism also developed. This antagonism was resolved to give birth to a society, feudalism.

In feudal society, as was prevalent in Europe (and in Asia with some modifications), in the middle ages, the serfs were given small plots of land to live on, with freedom over their lives to some extent. But they had to work gratis some days in a week in the manorial lord's lands. Not only working in lord's land, but serfs were subjected to many exactions. In this society, the serf's labour was exploited in direct form,

9 Bothmore and Rubel (ed), op. cit., p. 127.

which Marx called labour-rent, the simplest form of rent. In this society, the king at the top, the lords above the serfs is the class relation. As the productive forces developed due to progress in science and technology, the manufacture developed in the towns. The antagonism develops between the lords and the serfs (peasants), as the developed productive forces enter agriculture also. This would be resolved by giving birth to bourgeois society. This is of importance, because the feudal relations of production (feudal lord's proprietary rights in land) became fetters on the development of productive forces. Only capitalism or other higher form of society can develop the forces of production even, in agriculture. As such, Marx says, in capitalist mode of production, capitalist is the dominating functionary in agriculture and industry and so "the land owner such an important functionary in the ancient world and in middle ages, is a useless superfetation in the industrial world".¹⁰

10 Karl Marx, Theories of Surplus Value, Vol. II, Moscow, 1975, p. 44.

In the early stages of capitalism, the radical bourgeois wants to make the land a state property to make it useful for the capital, *but in practice, he lacks courage, since an attack on one form of property - a form of private ownership of a condition of labour might cast considerable doubts on the other form. Besides, the bourgeois himself became an owner of land¹¹. As capitalism gets its momentum in agriculture also, it makes the peasantry to come out of feudal clutches. The labour rent gradually transforms into rent-in-kind and then into money rent.

As the landed property is not abolished and bourgeoisie also became owners of land, the leasing out and leasing in of land assumes many forms of rent payment. This depends on the demand for land. However, if the productive forces in agriculture also develop to required stage, the rent transforms into capitalist rent in two forms, (i) Absolute ground rent and (ii) Differential rent

11 Ibid., p. 44 & 45.

as per Marx. Both rents are surplus above the profit of the capitalist tenant. The Absolute rent is a monopoly price to be paid to the landowner for mere ownership. The differential rent is the difference between the productivity of marginal land and the fertile land after leaving absolute rent. The absolute ground rent is the fetter on technical progress (or development of productive forces) in agriculture and surplus appropriation in the industrial sector.¹² As such, Marx says "with abolition of landed property and retention of capitalist production, this excess profit arising from the difference in fertility would remain".¹³ That is, the absolute ground rent vanishes and the differential rent would be paid to the State by the owner-cultivator. This is possible when land is nationalised. Further, he says, "if landed property became people's property then the whole basis of capitalist production would go".¹⁴ This is possible in private

12 The industrial capitalist wants to keep agricultural prices low, to have higher profit margins over wage bills. This is possible if absolute rent is abolished.

13 Karl Marx, Theories of Surplus Value, Vol. II, Moscow, 1975, p. 103.

14 Ibid., p. 104

propertyless society where common ownership of land through collectives and communes is achieved. Though these types of transformation of agrarian structure did not take place in pure form of nationalisation or socialisation of land, the near transformations have taken place and have been taking place, in some parts of the world.

From historical point of view, Ester Boserup's contribution that technical progress (development of production forces) and property relations in land are determined by the population pressure is worthy of being considered. She says, "the growth of population is major determinant in agricultural development".¹⁵ Regarding formation of private property in land, she observed that population growth causes scarcity of land, leading to a transformation in legal rights from general right to limited right. She deals with four forms of landed property (1) primitive common ownership, (2) tribal-slave society, (3) feudal society and (4) capitalist society (peasant proprietorship). These are near comparables to Marx's modes of production.

15 Ester Boserup, Conditions of Agricultural Growth, London, 1965, p. 58.

S.I. Cohen distinguishes agrarian structures on the basis of land ownership in the pre-modern societies. He deals with four types as follows.

- (1) African communal land ownership, wherein land is commonly owned, was prevalent in African tribal groups.
- (2) Asian tenure arrangements, wherein owners-operator, lease hold and crop sharing were intermingled.
- (3) Latin American tenure, wherein latifundios were prevalent.
- (4) Plantations, which were run by foreign companies in almost all colonies.

At present he observed that the situation is a mixed one, with new forms of tenure, of which the most wide spread is modern capitalistic farms, with ownership of various sizes.¹⁶

In general it can be understood, that the transformation of agrarian structures from pre-capitalist or feudal or semi-feudal type to capitalist type has been taking place in the world for the last few centuries.

The transformation had been complete in Western Europe by late 19th century. In 20th century, this process of transformation has been undergoing in all developing countries. At this stage it is important to note the difference between the relations of production in pre-capitalist and capitalist agrarian structures as explained cogently by Ashok Rudra.¹⁷

Capitalist Relations	Pre-capitalist Relations
1. Surplus extracted from free sellers of labour-power in a commodity exchange market.	1. Surplus extracted through extra-economic coercion of unfree labour.
2. Surplus realised through exchange in a commodity market	2. Surplus appropriated directly without intervention of any market.
3. Surplus reinvested giving rise to a continued process of accumulation of capital and ever expanding reproduction.	3. Surplus dissipated in luxury consumption as well as in different unproductive investments, leaving the stock of productive capital unchanged and production in a cycle of simple reproduction.
4. Pursuit of profit leads to changes in the organic composition of capital and a continuous process of technological advancement	4. Technology remains unchanged.

17 Ashok Rudra, Indian Agricultural Economics, Allied Publishers, New Delhi, 1982, p. 404.

As regards paths of development of capitalism in agriculture, corresponding to which agrarian structure transforms from pre-capitalist relations may be the two paths, as per Lenin.¹⁸ One is the German Junker type of agrarian structure in which the ex-landlords themselves transform into agricultural capitalist on their estates. Here the land in enclosure movement, is expropriated (from the peasants or tenants) in favour of the landlords. The another type of agrarian structure is of peasant proprietorship or peasant capitalism. Here the estate lands are expropriated (from the landlords) in favour of the small peasants who actually till the land in a revolutionary way as in France. In this type, the peasants through differentiation polarise into different classes (viz capitalist peasant, poor peasants, middle peasants and agricultural labourers). However, these two paths are not in pure form in real world, but near comparisons.

Regarding these paths of development, Mogens Boserup says in European context, "varying agrarian structures

18 Utsa Patnaik, "Development of Capitalism in Agriculture", in Studies in the Development of Capitalism in India, Vanguard Books Ltd., Lahore, 1978, p. 101.

emerged from the social transformation of agriculture which took place broadly in the pre-take-off periods. The transformations or reforms followed a general pattern in what they abolished or tried to abolish: serfdom, communal rights, uncertainty of titles in land, rent in kind, and purely feudal dues¹⁹. Boserup distinguished four types of agrarian structure on the basis of (i) particular fate of actual tiller and (ii) the role of entrepreneurship. These are:

- *1. The British type, wherein the cultivator had been (or was being) evicted and reintegrated as or wage labourer and where the entrepreneur was the capitalist tenant.
2. The Eastern type, where the cultivator had become a serf and the entrepreneur was identical with seigneur.
3. The French type, where the peasant owner predominated, i.e. where the functions of cultivator and entrepreneur were not separated.

19

Mogens Boserup, "Agrarian Structure and Take Off" in The Economics of take-off into Sustained Growth (ed), Rostow, London, 1964, p. 215.

4. The Mediterranean type, where the cultivator is a share cropper and where there really is no person who can reasonably be described as an entrepreneur".²⁰

Interestingly enough, the second and third type of Boserup are identically equal with the paths of development Lenin exposed. Then the first and fourth types are the variants of the other two types.

1.2 Defects in Agrarian Structure of Developing Countries

In all ex-colonial countries of the world, the transformation from pre-capitalist to capitalist societies was rather difficult and late due to the colonial plunder of capital by the colonial masters and due to typical centre-periphery relations between them. As such, the agrarian structures of these countries, which gained independence in the 20th century retained some of the characteristics of pre-capitalist societies. In fact, the agrarian structure has begun to widen its character in the

20 Ibid., p. 209.

present century only. Therefore, the developing countries continued to suffer from the defects in land tenure, which involves property relations. Such defects in the agrarian structure, which stand as an obstacle in agricultural development continue to persist in some forms, even after the land reform measures undertaken in the post-World War period. The defects in land tenure structure of developing countries may be summarised as follows:

1. Inequitable Distribution of Holdings:

In most of the countries, the land is inequitably distributed because of the impact of previous pre-capitalist or semi-feudal type of ownership. The minority section of the house-holds own a larger percentage area whereas the majority of them survive on small proportion of area. Consequently the big land holders who do not cultivate land on their own generally lease out land in small places to the tenants. They also involve in usury and trade, commanding higher bargaining capacity in the markets of lease, credit and commodity.

2. Small Size of Holdings:

The land-holding pattern is dominated by the small land-holders with tiny pieces of land, which do not even meet the subsistence minimum need of the proprietors. Because of the uneconomic size of the holdings, the use of farm implements and draught animals is not optimum and even if farmers sometimes possess, they are under-utilised due to indivisibilities.

3. Fragmentation of Holdings:

The holdings, which are small, are further fragmented into small plots of land. Each operational holding may have several parcels, scattered over the space. In such a case, the evils are waste of time and efforts. Generally the fragmentation occurs because of inheritance as farm population increase.

4. Tenancy System

In most of the developing countries, the tenancy based on share-cropping is dominant. Such type of tenancy does not provide enough incentives for the development of agricultural production. The rent collected is monopoly

price charged by the landlord. The capitalist ground rent allows average rate of profit over the costs borne by the tenant, whereas the pre-capitalist ground rent does not; as "The rent collected by the landlord from the peasant (tenant) is not confined to the portion of surplus value which remains after deduction of owners profits, but embraces the whole surplus product and sometimes even a part of the necessary product. The rent paid by the tenant is of a feudal and not of a capitalist nature."²¹ Thus, so long as the pre-capitalist rent remains unaltered, the tenant can get only subsistence and sometimes even this is not obtained and he has to resort to consumption loans at exorbitant rates of interest. In such a case, the tenant cannot introduce technical inputs for two reasons -- (i) first, he does not possess investible surplus and (ii) even if he wishes to invest in technical inputs there is a fear of higher share being demanded by landlord.

21 G. Kotovsky, Agrarian Reforms in India, (Bombay, PPH, 1964), p. 22.

In a case of fixed rate tenancy, there are some incentives to the tenant for adoption of technology. Tenants prefer fixed rent tenancy because under this type, the tenant gets the full benefit of increase in production. Therefore, it also provides incentives for investment. However, even in this type of tenancy, the tenant may not do so, if there is an insecurity of tenure.

1.3 Role of Land Reforms in Changing Agrarian Structures

To overcome some of these defects in agrarian structure, land reform measures were undertaken in most of the developing countries. In this regard, Elias H. Tuma says, "Land reforms has continuously been a major issue of national policy in one country or another even since French Revolution".²² It has been looked upon as the "Process in which the social structure of agriculture, with regard to property, labour and types of enterprise changes from feudal or other pre-capitalist forms to modern

22 Elias H. Tuma, "The Agrarian Based Development Policy in Land Reform", Land Economics, August, 1963.

ones".²³ Galbraith observed, "In fact, a land reform is a revolutionary step. It passes power, poverty and status from one group in the community to another".²⁴ About European feudalism Peter Dorner says, "It was inconsistent with the requirements of making the great change, from agrarian systems to an industrial society. Reforming these agrarian systems from the seventeenth through nineteenth centuries was part of the general social revolution that accompanied in Western and Central Europe".²⁵ Thus, in most of the countries of the world, the land reforms were looked upon as a main instrument of realising positive change in the agrarian structure. In implementing the land reform, two main approaches were followed. These were: (i) the Marxist approach and (ii) Non-Marxist approach.

Under the first approach, the removal of the feudal structure is realised by nationalisation of land in the

23 Morgens Boserup, op. cit., p. 201.

24 Peter Dorner, Land Reform in Economic Development, (Penguin, 1978), p. 29.

25 Ibid., p. 34.

first phase, then it is followed by socialisation of land in the second phase. The first phase is supposed to be achieved through democratic revolution and the second through socialist revolution. Lenin explains: "Nationalisation means transferring to the State the right of ownership of land, the right to draw rent but not the land itself. Nationalisation does not by any means imply that all the peasants will be forced to transfer their land to anyone at all. The socialist revolution implies the transfer to the whole of society, not only of property in land, but of the land itself as an object of economic activity."²⁶ The transformation through nationalisation of land occurred only in Russia. In other socialist countries (of Eastern Europe and China, Cuba and Vietnam) the land was not nationalised but the principle of land to the tiller was accepted, so that gradual transformation to socialist phase would take place.

The second approach of land reforms is the gradual transformation from feudal or precapitalist society to

26 V.I. Lenin, "Revision of Agrarian Programme of Workers Party", Collected Works, Vol. X (Moscow, Progress Publishers, 1965), p. 183.

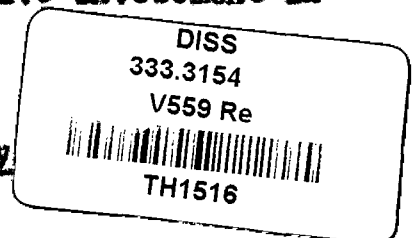
capitalist society, realised by liberal agrarian reform measures. In fact, with the exception of few countries, second approach has been followed in most of the developing countries of the world. In these countries three major reforms were undertaken. The first was the abolition of feudal or semi-feudal land-holdings with or without compensation. Through this measure, the large estates operated by small tenant cultivators would be broken into separate holdings to confer property rights on the tenant-cultivators. Further, the tenancy reform measures were introduced to give security of tenure and to regulate the terms and conditions of rent payment. These two measures of land reform were supposed to release the productive forces in agriculture, for increasing production. As has been pointed out in the previous section, the tenancy, particularly the share crop tenancy would not provide incentives for investment in land and increase productivity unless the exploitative edges are removed through reform measures. Therefore, under the tenancy reforms, the rent of the land would be fixed and the security of tenure was provided by making the contact between landlord and tenant a legal agreement. So the terms

and conditions were determined in such a way that it would provide sufficient incentive to the tenant to invest in the land and thereby increase the agricultural production. The third land reform measure was undertaken with the intention to reduce the inequality in the distribution of ownership of land. As per this measure, the ceiling limits would be fixed on ownership of land and the surplus land would be obtained and distributed among the landless or marginal and small farmers.

The prime motive behind all the land reform measures was to reduce tenancy and create a self-owner-cultivating class. And to the possible extent, the steps would be taken to improve the terms and conditions for those who continued to cultivate the land under different tenancy agreements. Because it was thought that it is the owner cultivator, who enjoys sufficient incentives to increasing agricultural output through the productive investment in the land.

1.4 The Importance of the Present Study and Review of Literature

Like in other developing countries, the land reform measures were introduced in India since early fifties.



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The main objective of the reform measures was to reduce the inequality in land-holdings, to minimise the magnitude of tenancy and ultimately create an owner-cultivating class. With continuous change in the form and content, these measures have been implemented for more than thirty-five years. Consequently, these reforms which include removal of zamindari, tenancy reforms and ceilings on holdings had brought about a significant change in the agrarian structure in Indian States. However, the important aspects of implementation of agrarian reform had its differential impact on various States in India. The impact was not quite uniform because, prior to the implementation, these States had various types of agrarian systems. While the zamindari was prevalent in Eastern and North-Eastern India and in some States of South India, the ryotwari system was the main feature of States in North-West India and also some States in South India. Yet in some States, mahalwari system was in practice. In spite of the built in regional biases in the land reform measures, to suit the specific requirement of the States, it was natural that the measures would have differential impact in various States in India. Several studies have examined the changes in the agrarian

structure with a regional context. But most of these studies as would be clear from the review of the literature remained partial in coverage and analyses. The present study, therefore, proposes to study the regional dimension of agrarian structure in greater detail. However, before we outline the objectives of the present study, it would be useful to review the findings of some of these studies.

Review of the Studies (1965) *Operational holding & Tenancy*

I. P.S. Sharma, in his study (1965)²⁷ based on the 1961 census data, studied variations in the distribution of operational holdings (by households) and the tenancy in India. The holdings were divided into ownership, pure tenancy and mixed tenancy holdings respectively. He examined the state-wise variations in the total holdings and the total cultivated area in the country. He also analysed average sizes of holdings, concentration ratios

*Based on Census
data*

27 P.S. Sharma, "A Study on the Structural and Tenurial Aspects of Rural Economy in the Light of 1961 Census", IJAE, October-December 1965.

and size distributions among three types of holdings and total holdings. In addition to the inter-State differences, the study also examined the rural-urban variations in some variables. Main points of study were:

- (a) The distribution by farm-size was uneven as "the proportion of households exceed the proportions of area in small-sized holdings. The reverse tendency has been observed in large-sized holdings". Further in many States more than 80 per cent of the total cultivated area was found in holdings exceeding 5 acres.
- (b) The concentration ratios were high in urban areas than in rural areas. In rural areas, the ratios were high in ownership holdings followed by pure tenancy and mixed tenancy holdings.
- (c) The average size of the holdings was the highest in South-Western and North-Western States,²⁸ viz., Punjab, Rajasthan, Madhya Pradesh, Gujarat, Maharashtra and Karnataka. Average size was

28 The States were those existing in pre-Reorganization period.

lowest in pure tenancy holdings and the highest in mixed tenancy holdings. Further, the average size was higher in urban areas than in rural areas in all types of holdings.

- (d) As regards tenancy, it was pointed out that pure tenancy in terms of both households and area was more or less a problem of small-sized holdings, in many States, namely -- West Bengal, Uttar Pradesh, Jammu & Kashmir, Kerala, Tamil Nadu, Bihar and Orissa.

II. *(1970) Tenancy Survey*
 K.N. Raj, in his theoretical article,²⁹ presented the inter-zonal³⁰ variations in the percentage of leased-in area and percentage of crop share area in leased-in area depending on NSS data (8th round). Two important observations were as follows: *(1953-54)*

- (a) *In North-West, Central and West India, the share of the larger holdings in the total area leased-in is nearly as high as their share in the total area

29 K.N. Raj, "Ownership and Distribution of Land", Indian Economic Review, Vol. V, (New Series), April, 1970.

30 Zones were of pre-reorganisation period.

owed, it is much lower, in North, East and South India*.

- (b) In Central and North-West zones, the percentage of area leased-in on crop-sharing basis rose with the size of holdings and also the bulk of the land leased out went into medium and large-sized holdings. But opposite was true in East and South zones.

III. Harpal Singh,⁽¹⁹⁷⁶⁾ in his all India level study,³¹ made use of NSS data of the three rounds of NSS. He came up with the conclusion that the inequality (by Gini-coefficient) in ownership holdings including landless households had increased in Phase-I (1953-54 to 1960-61) and Phase-II (1960-61 to 1970-71), and for operational holdings the same had increased in the Phase-I and decreased in the Phase-II. In regard to distribution of operational holdings, he observed that the decrease in both the number of holdings and the area at the upper end and the increase of the same at lower end was the sign of change in the direction of an equitable distribution.

31 Harpal Singh, "Structural Changes in the Size Distribution of Holdings - A Macro View", IJAE, July-September 1976.

(1976)

IV. A.S. Sirahi, G.S. Ram and C.B. Singh in their study³² based on NSS data looked into the inter-State variations in the inequalities of the household ownership holdings and also of the operational holdings. They first analysed the changes in the number of holdings and the area (in percentage increase or decrease) between 1960-61 and 1970-71 for the two types of holdings in 5 broad size-classes. They used Gini ratios to show inequalities in both types of holdings. Authors calculated G-values for 1953-54 in respect of comparable States. Based on the 26th round NSS, they also studied variations in leasing-in and leasing-out aspects of household ownership holdings by size-classes. Their conclusions were as follows:

- (a) The number of holdings as well as area increased over the period in all size-groups except large holdings.

32 A.S. Sirahi, G.S. Ram and C.B. Singh, "Inter-State Disparities in the Structural Distribution of Land Holdings in Rural India", IJAE, July-September, 1976.

- (b) The disparities in the distribution of ownership holdings were of very high magnitude in many States in 1970-71 revealed by Gini ratios. However, the case was different in operational holdings.
- (c) In the ownership holdings, the marginal and small farmers holdings had the net leased-in area, whereas the medium and large holdings (above 4 ha.) had the net leased-out area. But in the semi-medium class the net leased-in area was not high.

V. G.P. Mishra, ⁽¹⁹⁷⁷⁾ in his study, ³³ based on NSS, All India Rural Debt and Investment Survey (1971-72) and Agricultural Census (1970-71) observed the following trends:

- (a) The basic structure of production and land relations, presented no evidence of reduction in the concentration of land ownership and of decrease in the number of weaker sections.

33 G.P. Mishra, Some Aspects of Change in Agrarian Structure (New Delhi, Sterling Publishers, 1977).

- (b) The spurt of new technology benefited the large size of ownership holdings, as the flow of marketable surplus itself, is a function of farm size and the level of technology used in farming.

VI. H. Laxminarayana and S.S. Tyagi in their work³⁴ (1982) examined the changes in the (i) size distribution of operational and ownership holdings; (ii) changes in the average size of the holdings between 1960-61 and 1970-71 and (iii) the inter-State variations in the extent and forms of tenancy for 1970-71 (26th round NSS). The study was based on NSS data of 1960-61 and 1970-71. The study arrived at the following conclusions:

- (a) Between 1954-55 and 1971-72, considerable redistribution of land seemed to have taken place in favour of smaller holdings (at all India level).
- (b) As regards inter-State variations in extent of tenancy, there was positive association between the percentage of irrigated area and the percentage area leased-in (for 1970-71).

34 H. Laxminarayana and S.S. Tyagi, Changes in Agrarian Structure in India (Agri Cole Publishing Academy, 1982).

- (c) The percentage of area under tenancy in operated area (i.e., horizontal percentages) decreased with the increase in the size in more than half States which were from Eastern, Southern and Northern zones of India.
- (d) As regards the types of tenancy, it was found that cash rent tenancy was important in Karnataka, Andhra Pradesh, Gujarat, Maharashtra and Punjab; fixed produce tenancy was important in Kerala and Tamil Nadu; crop-sharing tenancy was predominant in Bihar and West Bengal; and in all other States 'others' type of tenancy was prominent.

VII. Pranab Burdhan, ⁽¹⁹⁷²⁾ in his study,³⁵ brought out the regional variations in the extent and forms of tenancy and found some casual relationships. His findings on tenancy are as follows:

- (a) "In general, the typical tenant is large farmer, in West, Central and North-West India, while he is a small farmer in East and South India".

35 Pranab Burdhan, "Variations in Extent and Forms of Agricultural Tenancy", Economic and Political Weekly, 11 & 18 September 1976.

(b) Roughly speaking between 1953-54 and 1970-71, tenancy seems to have declined in most States, with notable exceptions of Bihar, Orissa and Uttar Pradesh wherein it has gone up marginally. Comparing 1960-61 and 1970-71, the extent of tenancy seems to have remained the same at all India level, but has declined in Punjab (including Haryana), Kerala, Jammu & Kashmir, Tamil Nadu, Karnataka, Maharashtra and Gujarat on the other hand, it seems to have gone up slightly in Uttar Pradesh, Bihar, Orissa and Assam.

(c) Of all holdings reporting some area under tenancy, the percentage of those cultivated by landed tenants (as opposed to landless tenants) increased substantially between 1960-61 and 1970-71 (except Orissa).

VIII. S.K. Sanyal, in his study, ⁽¹⁹⁷⁷⁾ ³⁶ brought out the changes in the distribution of holdings and in the leasing-in pattern for the five States: Punjab, West Bengal, Bihar,

36 S.K. Sanyal, "Trends in Some Characteristics of Land Holdings - An Analysis for a Few States", Sarvekshna, July 1977.

Andhra Pradesh and Gujarat. He observed that the decreases in the percentage of landless households in these States was an important change, as this should have resulted in the increase in the area and number of holdings in the marginal and small farmers.

IX. V.S. Vyas, in his study, ⁽¹⁹⁷⁹⁾ 37/ looked into inter-State variations in ownership and operational holdings (both by households) through the technique -- inter-median lines (as measure of skewness), while dealing with changes in the distribution at all India level. His main observations are as follows:

- (i) At all India level, since mid-fifties small and medium holdings gained importance while big and large holdings lost their importance over time.
- (ii) By inter-median lines analysis, for ownership, it was shown that Assam, Bihar, Jammu & Kashmir, Kerala, Tamil Nadu, Orissa, Uttar Pradesh and West

37 V.S. Vyas, "Some Aspects of Structural Change in Indian Agriculture", IJAE, January-March, 1979.

Bengal had middle or less top concentration and in other States it was top concentration.

- (iii) By the same technique, it was shown that in Tamil Nadu and Karnataka, the access structure had been more skewed, than ownership and in Assam, Bihar, Orissa, Uttar Pradesh and West Bengal, it was less skewed, whereas for other States no-clear-cut conclusion could be drawn.

Limitation of these studies

Most of these studies suffer from some limitations.

For instance, P.S. Sharma's study was based on 1961 Census data, while the study of A.S. Sirchi et.al., was confined to two or three aspects of distribution of holding and neglected other aspects. The study of H. Lakshminarayana and S.S. Tyagi was mainly based on 26th round of NSS data. P. Burdhan's study was highly analytical and useful but remained confined to inter-State variations in tenancy only, leaving inter-class positions in tenancy untouched (other than considering leased-in area contributed by size classes upto 5 acres). V.S. Vyas, in his study, studied only inter-state variations in ownership and operational holdings by the techniques of inter-median lines, leaving

aside tenancy aspect. Rest of the studies were limited in their coverage and analysis, in many respects.

1.5 Objectives, Data Base and Methodology

1.5.1 The Objectives:

In view of the afore-mentioned limitations, the present study proposes to examine the State-wise variations and changes in all the possible aspects of agrarian structure in India for three points of time, namely 1953-54, 1960-61 and 1970-71. The specific objectives of the study are:

- i) To examine the state-wise variations and changes in the household ownership holdings and operational holdings.
- ii) To analyse State-wise variations and changes in the extent of tenancy; i.e., leasing-out aspect in ownership holdings and leasing-in aspect in operational holdings.
- iii) To relate some aspects of agricultural development with the variables of agrarian structure.

1.5.2 Data Base:

The relevant data for the study has been collected

from various sources. The data on household ownership holdings, operational holdings and tenancy have been collected from NSS reports. The rounds and numbers of this report are as follows:

- i) 8th Round : NSS Report Nos. 30, 36 & 66
- ii) 17th Round : NSS Report No. 144
- iii) 26th Round : NSS Report No. 215 (State-wise and all-India)

The necessary data on area and production have been collected from "The Report of Area and Production of Principal Crops" for relevant years, while the information on agricultural implements have been gathered from "Annual Abstracts of India". Further, the reports of "Indian Agricultural Statistics" were used to procure the relevant data on land-use-pattern.

1.5.3 Methodology:

(i) Unit of Analysis and Period:

Earlier it has been mentioned that the objective of the study is to bring out the inter-State variations in agrarian structure in terms of ownership holdings, operational holdings and tenancy. Since the data on these aspects

is available at the State level, State has been taken as a unit of analysis. The variations are examined at three points of time, viz., 1953-54, 1960-61 and 1970-71. The States included are: Andhra Pradesh, Assam, Bihar, Gujarat, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, West Bengal and Uttar Pradesh.

In order to make the temporal comparison possible, ~~few~~ adjustments were made in the area of some States. For example, the data of 1953-54 is not comparable with that of 1960-61 (and 1970-71 also), as the NSS data for 1953-54 was based on the States existing prior to reorganization of States. However, some adjustments were made, by adjusting the area data of some districts which were affected by reorganization. The number of holdings and area from the old States were adjusted to make the inter-States comparison possible. The States, where adjustments were made are Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh and Punjab. Kerala is identified with Travancore-Cochin and Tamil Nadu with old Madras State (after Andhra State was formed and one district Bellary added to Mysore) as in 1953-54.

(ii) Statistical Technique Used:

Keeping in view the objective of the study, relevant statistical techniques are used. As the main emphasis is to bring out the variations in the agrarian structure, the inequality in area in relation to holdings is brought out through Gini-coefficient technique. Gini-coefficient is defined in the following way:

$$G = \frac{|\sum X_i Y_{i+1} - (\sum X_{i+1} Y_i)|}{100 \times 100}, \text{ where}$$

X_i = the cumulative frequency of the percentage number of holdings in the i th class.

Y_i = the cumulative frequency of the percentage area in the i th class.

Gini coefficient is useful for comparison of overall inequality, cross-sectionally and temporally. But it does not indicate the inter-temporal shift in the distribution of area among the various classes. To measure such shift and the inequality, class-wise and temporally, the inter-class concentration ratio (ICCR) is considered to be quite

relevant and therefore it is used for three periods. The ICCR is defined as

$$ICCR_i = \frac{q_i/Q}{P_i/P} \times 100$$

Where Q_i and P_i are the area and number of holdings in the i th class and Q and P are the total area and number of holdings in all the classes.

The ICCR indicates inter-class inequality as "A figure less than 100 suggests that the land owned by the group is less than its share under conditions of equal distribution of land. A figure greater than 100 shows the contrary".³⁸

The Gini and ICCR are used to bring out the inequalities in ownership holdings and operational holdings.

Another objective of the study is to examine the relationship between agrarian structure and agricultural development of the States. To bring out such relationship the technique of correlation coefficient is used.

38 G.S. Bhalla et al.; "Structural and Institutional Set-up of Rural Punjab in the Year 2000", FAO Report, (New Delhi: CSRD, JNU).

(iii) Variables of Agrarian Structures

Several indicators of agricultural development, including the agricultural productivity, (Gross value of output per hectare) were taken and related with variables of agrarian structure. For this purpose, the variables of agrarian structure have been chosen from the operational holdings and ownership holdings.

The variables of operational holdings are:

- i) The percentage leased-in area
- ii) The Gini Coefficient value
- iii) The average size of the holdings
- iv) The percentage area under marginal and small farmers

The variables of ownership holdings are:

- i) The Gini-value
- ii) The average size
- iii) The percentage area under marginal and small farmers.

(iv) Indicators of Agricultural Development

Agricultural productivity in money terms (per hectare) is used as an indicator of agricultural development. The productivity is derived as a three year average for three points of time, centering around 1953-54, 1960-61 and 1970-71 respectively. Nineteen crops have been selected to arrive at aggregate productivity. The crops taken were; rice, wheat, jowar, bajra, maize, ragi, barley, gram, tur, groundnut, rapeseed/mustard, sesamum, lin seed, castor seed, sugar cane, cotton, jute, mesta and tobacco.

Other indicators of agricultural development are the inputs used. These inputs may conveniently be divided into four types: (i) Land-use, (ii) Irrigation, (iii) Agricultural implements and machinery and (iv) Fertilizers consumption. Except in case of fertilizers, all other inputs have three indicators each. The indicators used are given below:

(a) Output

1. Agricultural productivity (Value in Rs/hectare)

(b) Land-use

2. Percentage of Net sown area in the total area reported for land utilization.
3. Cropping Intensity (% GCA/NSA).
4. Percentage area under non-food grain crops in gross cropped area

(c) Irrigation

5. Percentage of irrigated area in NSA.
6. Irrigation Intensity (% Net irrigated area/
Gross irrigated area)
7. Percentage of area irrigated under tanks and wells in the NIA.

(d) Agricultural implements and Machinery

8. Ploughs per 1000 ha.
9. Oil engines and electric pumps per 1000 ha.
10. Tractors per 1000 ha.

(e) Fertiliser-consumption

11. Fertiliser (NPK) in M. Tonnes per 1000 ha.

CHAPTER II

CHAPTER - II

PRE-INDEPENDENCE AGRARIAN STRUCTURE, LAND REFORMS AND EMERGING AGRARIAN STRUCTURE IN INDIA

2.1 Agrarian Structure in Pre-independence Period.

In the precolonial period, the mode of production in India was considered to be Asiatic in nature, but by now the same is considered to be of Asian variant feudalism by several researchers (R.S. Sharma, Irfan Habib and Kosambi)¹. In this regard, Bhavani Sen observed, "...that special features of Indian feudalism was the tributary form; that is, unlike European serfdom, forced labour was not the general feature, the lord or overlord received only tributes"².

The English conquest of India brought many drastic changes in the land system, which gave scope for the reinforcing of feudalism in India. The most fundamental of

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1. (a) M.J.K.Thavaraj: "Relevance of the Concept of Asiatic Mode of Production to Indian History" paper presented in the Seminar on - Marx and India - on 29.2.84
 - (b) Daniel Thorner: "Marx on India and the Asiatic Mode of Production" in, Shaping Modern India, Allied, 1981.
 2. Bhavani Sen: Evolution of Agrarian Relations in India, PPH, 1962, p. 47.

these changes was the disintegration of the village community, partly as a result of new land system introduced by the British and partly as a result of the spread in the nineteenth century of commercial agriculture³. The former took place between 1793 to 1850 and the latter between 1850 to 1947. Under the new land system, in many parts of the country namely Assam, West Bengal, Bihar, Orissa and Uttar Pradesh, large parts of the states of A.P. and Tamil Nadu, erstwhile princely states of Hyderabad, Rajasthan and Central Indian States-the Zamindari system was implemented as per permanent settlement of 1793. In the permanent settlement, "the Zamindars were given the full proprietary rights over the estates, while the peasants were reduced to the level of semi-serfdom"⁴. The political objective of the system according to Cornwallis, was, "The means by which we keep possession of this country that the proprietors of the lands should be attached to us from motives of self-interest"⁵. Further the economic objectives were, firstly to keep India

3. Daniel and Alice Thorner: Land and Labour in India, Asia Publishing House, 1974, p-52.

4. Bhavani Sen: op.cit. p.63.

5. Ibid. p.63.

as an agricultural country, without industrial development, so that British manufacturers would get market in India and this was possible when the Indian capital was diverted to purchase estates etc., instead of going into manufactures and secondly to find solution to the hampering British revenues by diverting investment into agriculture and thereby to increase production and productivity in agriculture. Bhavani Sen noted that the first was fulfilled and the second was not⁶.

When the British conquered Western as well as Southern India, they decided "to settle the land revenue with the actual cultivators, and maintain landrecords and collect, revenue directly through an official agency in each village. This came to be called Raitwari settlement"⁷ This was prevalent in Southern Madras and Bombay Provinces, Berar and East Punjab, portions of Assam and Coorg. After commercial agriculture began, the money lenders' role increased and the Raitwari cultivators were also brought to the level of tenants in the Zamindari areas, by losing land to the money lenders or money-lending landlords. Due to the introduction of new land system by the British, the following aspects of

6. Ibid, p.63.

7. V.M. Dandakar & Nilakanth Rathi

"Poverty in India", Economic and Political Weekly, January 9, 1971.

the agrarian structure had undergone a change:

- i) Sweeping away the remnants of all village communities;
- ii) Land becoming a saleable commodity;
- iii) Confering of rights in land on the Zamindars;
- iv) Arising a hierarchy of agent collecting intermediaries, in Zamindari areas;
- v) Losing land by the peasants of Raitwari areas, to moneylenders, due to lack of institutional credit.

In the changed conditions, "three distinct classes emerged in India's country side, the landlords, the peasants and the agricultural labourers"⁸. Through capital its concept of private property, the British tried to create the English type of landlords under the zamindari system but "the result ironically turned out to be merely a modification of feudal landlordism"⁹. Further they also tried to create French type of peasant proprietors through Raitwari system. But both these tenures were not conducive to the agricultural development in India. P.C. Joshi observed, "Under the zamindari tenure, the Indian Land lord turned out to be too passive and parasitic in his social and economic role to stand as comparison with British landlord. Under the Raitwari tenure, the peasant was overshadowed by a new class of usurious

8. Bhavani Sen: op.cit. p. 78 & 79.

9. Ibid, p.73.

landlords and had no resemblance with the small-holding peasant proprietors of French type"¹⁰

2.2 Review of Land Reforms:

By the time India became independent, "The Zamindari land revenue system covered 57 per cent of the total area of private holdings in nine states (former provinces of the British India), the Raitwari system 38 per cent and Mahlwari system 5 per cent".¹¹ The British divided the country into provinces and princely states. In nearly 555 princely states, the feudal landholdings would be treated as Zamindari tenure. In this regard, Kotovsky observed, "Before implementation of the land reforms, roughly, two-thirds of all the land in India belonged to landlords and some three quarters of the peasants were landless tenants or agricultural labourers. The chief outcome of the colonialist agrarian policy in India was the impoverishment and dispossession of the peasantry and the strengthening of the dominant position of the class of semi-feudal landlords, who had concentrated in their hands the biggest and best part of the cultivated

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10. P.C. Joshi: "Perspectives of Agrarian Reconstruction-India in Asian Context", Mainstream, Republic Day, 1978.
11. G. Kotovsky: Agrarian Reforms in India, PPH, 1964, p. 13.

land"¹²

"Before World War II, none of the Agrarian Programmes advocated by the Congress had raised the question of radically altering the system of land tenure or land ownership", notes National Commission on agriculture.¹³ Due to feudal and semi-feudal oppression () and exploitation, the peasant struggles started before India became independent, in almost all parts of India. Tebhaga peasant struggle in Bengal and Telangana Peasant Armed struggle of Andhra Pradesh were among such historical struggles. All such peasant struggles were being mobilised by the Communist Parties. This compelled the Congress Party to take up the agrarian question. As such, the Congress Party, in its Election Manifesto of 1945-46, put forward the case for "The removal of intermediaries between the peasant and the state". When the power was transferred to the Congress Party, in 1947, it recognised the importance of landreforms, and subsequently the Congress Agrarian Reforms Committee recommended the following steps:¹⁴

- 1) Immediate abolition of all forms of feudal exploitation of the peasantry, with a moderate compensation.

12. Ibid. p.19.

13. National Commission on Agriculture: Part XV, Agrarian Reforms, Ministry of Agriculture, New Delhi, 1976, p. 20.

14. G. Kotovsky: op.cit. p.45.

ii) To set up small and medium farms by allotting land to the tenants, share croppers and agricultural labourers in opposition to the establishment of landlord type capitalist farms.

iii) There should be no scope for exploitation of one class by another.

The land reforms taken up by the Indian Government were in three spheres namely (i) Abolition of Intermediaries (ii) Tenancy Reforms and (iii) Ceiling on land holdings.

2.2.1 Abolition of Intermediaries:

All the states passed Acts in this respect by 1953. The implementation was under process throughout the decade 1950's. As a result, 20 million tenants were brought into direct relationship with the State.¹⁵ This legislation was implemented quite forcefully and therefore led to some positive changes.

The Congress Party, had taken measures for abolition of Zamindari system, in unavoidable situation prevalent then. It can be understood from the remark made by UP Zamindari Abolition Committee, "Our Scheme of Zamindari Abolition Contemplates payment of equitable compensation. If abolition is held over for a few years, abolition may mean expropriation

15. V.M. Dandekar and Nilakanth Rath: Op.cit.

without compensation and quite possible bloodshed and violence"¹⁶

The bourgeoisie which came to power was dependent on local Zamindars or landlords to win elections. As such, it did not expropriate the lands of the Zamindars, Jagirdars and Inamdars. But the abolition was made by paying good amount of compensation. In 1951, the estimation of compensation was between Rs. 3500-4000 million. But it went upto Rs. 6700 million in 1961, by steps, "as a result of direct encouragement and even pressure by representatives of the Congress High Command"¹⁷ Further, compensation was also paid to the landlords who had lost their rights in the British period.

The Zamindars were allowed to keep lands for self-cultivation, viz, Sir, Khudkhasht and Khas lands. In the wake of impending legislation, the zamindars were alert to extend their sirs, by evicting the tenants. It was easy for the zamindars to manipulate the records due to influential life.

16. G. Kotovsky: Op.cit, p. 65.

17. Ibid, p. 49 and 50.

In the beneficiaries not all were actual tillers of the soil, but there were the upper crust of the peasantry namely, those who had already owned some land or those who were semi-intermediaries living on rent. Actual tenants of the aforementioned upper crust of the peasantry, share-croppers and agricultural labourers were not taken into account for conferring ownership rights. In some parts the land revenue was raised for the beneficiaries so as to make it equal to old rents, as this was used to decide the payment of compensation to Zemindars. In fact, Dandekar and Rath observed, "Abolition of intermediaries was basically a reform of revenue administration rather than a measure of land redistribution"¹⁸ In spite of all these limitations the progressive importance of Zamindari abolition lies in the fact that it has certainly led to a considerable curbing of feudal and semi-feudal exploitation of the peasantry.

2.2.2 Tenancy Reforms.

Tenancy reforms are concerned with the regulation of rent and the security of tenure, for the tenants. These two together should gradually lead to the conferment of ownership rights on the tenants. Tenancy Reform has a long history in India since late nineteenth century. The peasant uprisings in Zamindari and Raitwari areas and the famines gave scope for ensuring some protection to the

18. V.M. Dandekar and Op.cit.
Hilakanth Rath:

peasants in the British period. National Commission on Agriculture (NCA) notes, " It was in Bengal, the classical land of Zamindari tenure, that the most important piece of legislation on tenancy of the nineteenth century, the Bengal Tenancy Act of 1885 was enacted.....The Act conferred occupancy rights on those ryots and underryots who had been in possession of any land for twelve consecutive years. The occupancy right included the right of inheritance, transfer and mortgage"¹⁹. The Act of 1885, did not confer any rights on bhargadars or share croppers.

After independence, Indian Government also passed similar legislations. In these legislations, different states had different methods of regulating rents and of ensuring security of tenure.

A. Regulation of Rent:

There had been no uniform norms for fixing fair rent in all the states. Originally fixed-rents were high in some States. In some States, the fair rent was fixed as a multiple of land revenue (as in Madhya Pradesh), in many states, the rent was as a portion of gross produce. The Planning Commission Report on Progress of Land Reforms

19. National Commission Op.cit.
on Agriculture;

(1963) and Chief Ministers Conference on Land Reforms (1970) insisted to maintain the rent between one fourth to one-fifth of gross produce. After this, the Andhra Pradesh Government reduced fair rent (in Andhra Area) to lie between 25% to 30% of gross produce, by an amendment.²⁰ Even this was not in conformity with the Planning Commission's suggestion. In Tamilnadu, Punjab, Haryana and Jammu & Kashmir, the fair rents fixed were higher than what Planning Commission suggested.²¹

B. Security of Tenure:

Security of tenure depends on five factors. These are: (i) definition of the term tenant, (ii) the circumstances in which landowners are allowed to resume tenanted land for personal cultivation, (iii) Definition of the term personal cultivation, (iv) Provision for regulating voluntary surrender of tenancy and (v) status of land records.²²

The persons cultivating the lands of others on payment of rent in cash or kind are treated as tenants. But the sharecroppers were not treated as tenants in some states.

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20. G.Parthasarthy and K.Suryanarayana: "Andhra Pradesh (Andhra Area) Tenancy (Amendment) Act" Economic and Political Weekly, March 27, 1971.
21. P.S.Appu: "Tenancy Reform in India", Economic and Political Weekly, August, 1975, (Sp 1)
22. Ibid.

Share croppers and sajhis in U.P., Bhargadars in West Bengal, Bagchasis in Orissa; Bataidars in Bihar and Adhiars in Assam are not treated as tenants.²³ From this aspect no difference could be seen between these Acts in Independent India and the Bengal Tenancy Act of 1885 under the British. However in W. Bengal since early 1970's bhargadars have been recognised as tenants, particularly after 'Operation Bharga'.

Resumption of land by the owners for personal cultivation was allowed in all States except Uttar Pradesh and West Bengal (i.e it is inapplicable in respect of Bhargadars). Further ejectment of tenants was permitted on nearly 24 grounds of which one third are flimsy in nature as pointed out by NCA²⁴. In some states the land owners are allowed upto ceiling limit. In several states the tenants are to be left with one half of the tenanted area. In some states, the small farmers are allowed to resume the entire land leased out. In some the resumption was allowed upto some period, after which the tenants would be conferred with ownership rights. However, "In course of time, it was found that even

23. V.M.Dandakar and Op.cit.
Nilekanth Rath;

24. National Commission on Agriculture: op.cit. p. 66.

the limited right of resumption granted to landowners resulted in all tenures being rendered insecure and the tenants being harassed²⁵

Personal cultivation was defined in a way that it was enough for the person or member of his family to supervise the cultivation by hired labour paying wages in cash or kind, but not by share crop. This gives scope for many manipulations and leads to concealed tenancy. Participation, through manual labour, in the field was not insisted.

Voluntary surrenders is another name for forceful eviction of tenants by the landowners. The tenants having weaker bargaining power, want to remain as tenants without rights, however onerous the conditions of tenancy may be, as they feel insecure in the labour market for casual labour. Third Five Year Plan suggested that such voluntary surrenders should not be regarded as valid unless they were registered with the revenue authorities and even if the surrender was valid, the land owner should be allowed resumption upto the ceiling limit. As regards land records, there may not be any entries about the tenants. This is the result of the manipulation of the land owners, in collusion with the

25. P.S. Appu: op.cit.

revenue officials. Unwritten or oral contracts of tenancy were not useful to claim occupancy rights by the tenants, as the burden of proof is on the tenants. N.C.A. notes, ".....Under the peculiar character of landlord-tenant nexus obtaining in India, it is virtually impossible for an ordinary tenant to prove continuous occupation for a number of years. In fact the landlord takes good care that the tenant is unable to do so by manipulating land records, by not issuing rent receipts and by rotating tenancies yearly from plot to plot.....the burden of proof, to the contrary, should be on the landlord"²⁶

V.M. Dandekar, dealing with unsatisfactory implementation of tenancy reform, quotes from A.H. Khusro's study of Hyderabad State, "It appears that out of the originally created protected tenants, in 1951.....24 per cent have been legally evicted, 22 per cent have been illegally thrown out, while 17 per cent have voluntarily surrendered..... The so-called voluntary surrenders are very often a subtle form of illegal evictions and only a portion of those surrenders is genuine. The tendency is for the smaller tenants to be more readily evicted than larger ones and purchase of land

26. National Commission on Agriculture: op.cit, p.70.

have been undertaken by the larger tenants than the smaller ones"²⁷ This holds good in all states. Further the failure of implementation of tenancy reforms could be attributed, as per V.M. Dandekar, to (i) the inherent weakness or loopholes in the legislation, and (ii) a failure of administration in implementation of the legislation.

After Green Revolution, Land productivity increased and hence land value. As such the landowners began to resume lands for personal cultivation, making use of the weaker position of the tenants. A.M. Khusro in 1973, recommended "An early identification of the tenants and a reconstruction of the Record of Rights should therefore be matter of great urgency in the Indian economy"²⁸ in view of the process of evictions going on.

2.2.3 Ceiling on Land Holdings.

Ceiling on land holdings was imposed with a purpose to reduce the inequality in the distribution of land. The objective was to acquire the surplus land and redistribute it among the landless labourers, and marginal and small

27. V.M. Dandekar, "A Review of the Land Reform Studies Sponsored by the Research Programme Committee of the Planning Commission", Arth Vijnana, December 1962.

28. A.M.Khusro, The Economics of Land Reform and Farm Size in India, Mc Millan, Delhi, 1973, p.52.

farmers. Thus at the root of this land reform measure, the objective was to have an equitable distribution of land. However, of all the land reform measures, ceiling on land holdings was the most unsuccessful measure in India.

The First Five Year Plan simply speaks, "in favour of the principle that there should be an upper limit to the amount of land that any individual may hold"²⁹. But no steps were taken. The Agra session of AICC, 1953, asked all the States to take steps in that direction. Again Congress Party in its Election Manifesto, in 1957, emphasised, "The principle of ceilings on land has been accepted.....so as to bring about a better distribution of land"³⁰. The Nagpur session of AICC, held in 1959, had adopted the resolution on ceilings unanimously.

The Congress Party's main intention was to keep peasant masses away from the path of revolutionary disposal of agrarian question. As such, its policies were never genuinely directed towards implementation. To satisfy the reactionary elements within the party, by giving ample time for adjustments, the enactment of ceilings laws took two years or more to pass in the different states.

The Second Five Year Plan suggested a reasonable ceiling should be fixed at three times the family holdings, "A family

29. G. Kotovsky, op.cit, p. 83.

30. Ibid, p.87.

holding was deemed to be capable of yielding an annual income of Rs.1200. Thus the ceiling suggested to be fixed an income level of Rs. 3600 a year³¹. But the states did not follow any uniform procedure in ceiling limits. Generally the ceilings were at higher levels by which no large surplus land could be obtained. Only 2.354 million acres of land was declared surplus, of which 0.903 million acres were distributed,³² This was far below the expectations made. The reasons for the failure in getting more surplus land were as follows:

- (i) The unit of application was individual instead of the family in Andhra Pradesh, Assam, Bihar, Haryana, Himachal Pradesh, Jammu & Kashmir, Orissa, Punjab, Uttar Pradesh and West Bengal. Only in Gujrat, Karnataka, Kerala, Madhya Pradesh, Maharashtra and Tamilnadu the family was the unit. In the former states each individual could have ceiling.
- ii) Nearly 42 categories of land were exempted from the ceilings.³³ For example, lands of religious institutions, tank fisheries, efficiently managed farms etc. Many of

31. National Commission on Agriculture; op.cit. p.72.

32. Subas Chattopadhyaya, "On the Class Nature of Land Reforms in India Since Independence" Social Scientist, November, 1973.

33. National Commission on Agriculture, op.cit, p.73.

these exemptions could be used for manipulations.

iii) The Legislative measures were full of loopholes which were taken advantage of by the big land owners to circumvent the laws, through benami transfers which were fictitious.

iv) Recourse to litigation by big landholders.

It may be noted that the intention of the Congress Party was to demonstrate that land ceilings could not ensure any surplus land, as was made clear, by Nehru in his speech at Nagpur Session: "Though the imposition of ceilings would affect only an infinitesimal minority of landlords and though its actual practical gains would not be much, the sentimental gains would be tremendous"³⁴ Sunil Guha after Nagpur Session, while concurring with Nehru, stated, "It would relieve tension among the landless millions and engender a sense of contentment"³⁵ though no surplus land could be obtained and redistributed. But the expected sentimental gains, sense of contentment, relief of tension etc., among the rural masses did not come true. By May, 1967, the Naxalbari and Srikulam struggles of peasants and agricultural labourers erupted.

34. G. Kotovsky, op.cit., p. 104.

35. Ibid., p.89.

P.C. Joshi says, "The rise of Naxalism and the threat posed by it in the late sixties was one of the main factors responsible for the sense of urgency with the ruling elite revived the question of land reform during the close of sixties and the beginning of Seventies"³⁶ This was confirmed by the "Report on the current Agrarian Tension" released by the Ministry of Home Affairs, in December, 1969.³⁷ As such, again Land Reforms became prominent. In the Conference of Chief Ministers on September, 1970, Prime Minister, Mrs Indira Gandhi stressed "Land Reform is the most crucial test which our political system must pass in order to survive."³⁸ Central Land Reforms Committee was formed to formulate fresh guidelines. In Chief Ministers Conference of 1972, the National Guidelines for ceilings were accepted. They were:³⁹

- i) The limit of ceiling should be between 10-18 acres for best category of land, with assured irrigation and capable of yielding two crops a year. With allowances for

36. P.C. Joshi, Land Reforms in India, Trends and Perspectives, IEG, Allied Publishers, New Delhi, 1982, p.90.

37. Ibid, p.90.

38. Ibid, p.90.

39. National Commission on Agriculture, op.cit, p.40 and 41.

degree of irrigations or no irrigation maximum holding to be allowed was 54 acres.

- ii) The unit of application should be family, with 5 members of family (i.e, wife and husband and 3 minor children) with allowance for more members, the maximum is two ceilings.
- iii) Every major son would be treated as a separate unit.
- iv) Exemptions would be allowed only on a few categories of land, such as plantations and Agricultural Institutions.
- v) Inclusion of ceilings in the Ninth Schedule of the Constitution, to make the process litigant-free.
- vi) Retrospective effect from the date falling not later than 24.1.1971.

All the guidelines were taken into account and retrospective Acts were amended in all the States. However, in these amended Act also, item (iii) and (iv) would give scope for lot of manipulations. Regarding payment of compensation and the date of retrospective effect, they were varying from State to State.

After this second phase ceiling laws, the land declared surplus was 39, 91, 497, acres, of which 26, 53, 651 acres were taken possession. 18, 34, 018 acres of land distributed among 13, 22, 850 beneficiaries.⁴⁰

40. Vivek Ranjan Battacharya: New Face of Rural India, 1982, p.241.

2.2.4 Evaluation of Land Reforms.

As far as failure of land reforms is concerned, it is attributed to lack of political will, even as per official reports.⁴¹ National Commission on Agriculture aptly noted, "It has to be recognised that the lack of political will is not generated in a vacuum but comes about under conditions where anti-land reform or status-quo elements are able to exercise considerable pulls and pressures on political parties as also on the organs of the state".⁴² The Indian ruling class, through the Congress Party, recognised the importance of liberal land reforms for the reasons: (i) the revolutionary peasant struggles would emerge, if no land issue was taken up, (ii) the industrialisation would need cheap food grains and raw-material crops; and (iii) the power (political) could not be captured through election, if the rural poor were not given an indication of land reforms. However, the Indian ruling class propagated radical ideology but its programme was reactionary as pointed out by P.C. Joshi.⁴³

Land reforms did not affect much the Zamindars and

41. National Commission on Agriculture, op.cit. p.87.

42. Ibid, p.80.

43. P.C.Joshi, "Land Reform and Agrarian Change in India and Pakistan since 1947" Journal of Peasant Studies, January, 1974.

ex-princes, as they were given Sir lands and were paid compensation in good sums. The only important beneficiaries of land reforms were the peasant upper crust. This upper peasant crust was anti-feudal so far as zamindari abolition was concerned, but they were against ceiling laws. Thus the three big land owning classes (ex-Zamindars, ex-princes and the upper peasant crust) became powerful in rural life and they circumvented the Tenancy and Ceiling Laws, as they became part of political power in the country. Further the ruling class always gave prior warning to the affected classes to make false adjustments. Land reforms, being the State subject, the process of implementation was a lengthy one: The announcement by the Central Government, the debate on the Bill in the State legislatures, the assent by the President, the publication in the Gazette and then implementation. This would take years and years. Even in the laws, there was scope to escape and avoid implementation, due to double-edged definitions. Thus fore warning and defects in the Laws became helpful to the big-land owning classes. This was pointed out by Thorners (Alice and Daniel)⁴⁴ and Hare Krishna Konar.⁴⁵

44. Daniel and Alice Thorner, Land and Labour in India, Asia Publishing House, 1974, p. 6 & 8.

45. Suhas Chattopadhyaya, op.cit.

Further the potential beneficiaries, i.e land-poor peasants, tenants and agricultural labourers were not involved in the implementation Programme. As far back as 1956, Dr K.S. Gill of Punjab University recommended to the government to implement land reforms, by 'Special Committees of the Tillers of the Soil' in the villages. But no such steps were taken by the government.⁴⁶ As the implementation was entrusted to Revenue officials, they could not go against the local political power. These officials could not function as a change agency, in implementing land reforms, which would involve property rights in land.⁴⁷

Despite all the shortcomings above there have been some successes through land reforms. Zamindari Abolition was fairly efficiently implemented in all the States when compared to tenancy and ceiling Laws⁴⁸. Jammu & Kashmir was the first State to implement all the legislations properly.⁴⁹ After national guidelines were framed, there has been some progress in the implementation of ceilings. In the recent years, West Bengal, Karnataka and Kerala have made progress in implementation of land reforms. West Bengal protected the rights of share croppers through

46. G. Kotovsky, op.cit, p.86.
 47. National Commission on Agriculture, op.cit, p.90.
 48. National Commission on Agriculture, p.87.
 49. G.Kotovsky, op.cit, p.50 & 116.

'operation Bharga; Karnataka conferred occupancy rights of land to the tenants through Land Tribunals; and in Kerala the implementation of Tenancy Laws was effectively done through tenant associations.⁵⁰

2.3 Emerging Agrarian Structure.

In characterising the emerging agrarian structures, P.C. Joshi observed, "For Studying the agrarian structure in India, the terms feudal, semi-feudal and capitalist have been indiscriminately used without always distinguishing between the Western and Indian variants of feudalism".⁵¹ Further while describing the nature of agrarian structure in India, the regional variations in the agrarian structure have to be kept in mind. The distinction has to be made in "the variations between wholly moribund and retrogressive agrarian structure of the Eastern region and the somewhat less retrogressive agrarian structure of North-Western region"⁵² Daniel Thorner also stressed (in 1973) hard to take regional studies, before generalisations on all India level are made.⁵³

It may be appropriate to label the pre-independence

51. P.C. Joshi, Land Reforms in India - Trends and Perspectives, Allied, 1982, p.66.

52. Ibid, p.67.

53. Daniel Thorner: Shaping of Modern India, Allied, 1981, p. 389.

agrarian structure as foudal and semi-feudal. The National Commission on Agriculture also noted that under the British rule the agrarian social structure developed feudal and semi-feudal property relations.⁵⁴ Immediately after independence, Zamindari abolition and Tenancy reform brought in stimulus to break the existing semi-feudal relations so as to transform into capitalist relations. In independent India, there has been huge Plan and Non-plan investment in agriculture which also acted as an agency for capitalist development in agriculture. Further in the pre-green revolution period (i.e. prior to 1965), the agrarian structure was in the phase of weakening semi-feudal relations, giving scope for capitalist sector as a leading one though not a dominant one. In the post-green revolution period, the process of development of capitalism in agriculture has been strengthened due to various factors. As such, the old characterisation of classes of rural India would not be held correct. At the same time, the process of development also need not be overestimated. In this connection, Utsa Patnaik says, "In the concretely given historically evolving agrarian structure, we find that classes do not and cannot exist

54. National Commission on Agriculture, op.cit.
p. 145.

only in their pure form. There are a variety of transitional forms, a complex of interaction of developing capitalism with pre capitalist organisation"⁵⁵

National Commission on Agriculture pointed out that there have been three distinct sectors of Indian Agriculture, coexisting and contending with each other, i.e., three broad classes in the agrarian structure.⁵⁶ They are as follows:

i) The youngest of the three sectors is the developed sector of modern entrepreneur - farming, based on the capitalist mode of production i.e., by employment of wage labour, investment of capital, use of machinery and scientific inputs.

ii) The second sector is of the marginal, small and medium landowning peasants. It is of self-employed peasants. Though market oriented, it is mainly subsistence economy.

iii) The third sector is the oldest of the three sectors. It is under the domination of feudal or semi-feudal landlordism. Though it is in the state of disintegration and decay, it has grip over the vast mass of tenants in the country.

55. Utsa Patnaik, "Capitalist Development in Agriculture - A Note" in Studies in the Development of Capitalism in India, Vanguard Books Ltd., Lahore, 1978, p.63.

56. National Commission on Agriculture, op.cit, pp.152 to 154.

Having reviewed in Chapter I, the studies on agrarian structure, with reference to quantitative aspect, now it is relevant to review the studies with regard to qualitative aspect of the emerging agrarian structure. However the review would be confined to mode of production in Indian agriculture with reference to regional outlook, in the following part of this chapter.

2.3.1 Mode of Production in Indian Agriculture.

The capitalist farming, the first sector suggested by NCA, emerges out of the second and third sectors. In the second sector the differentiation takes place into capitalist farmers on the one hand, and small and marginal farmers on the other. At certain stage, the depeasantisation (or proletarianisation) and/or immiserication within the peasantry may occur depending on the level of development of capitalism in agriculture. In the third sector, the conversion of semifeudal landlords into capitalist farmers (by mere supervision) is easier by adopting wage labour and improved technology (i.e., by evicting tenants). Thus the process of development of capitalism in Indian agriculture has been undergoing for the last two decades (i.e. since mid-sixties) at a faster rate.

Since late sixties, there has been going on debate on the mode of production in Indian agriculture among the

academicians and Left Parties. In view of this a review of the debate is undertaken here. Though the review on mode of production was very neatly made by Alice Thorner⁵⁷ in Economic and Political Weekly, it is thought, important here to take up the review on the regional basis. The review is divided into following parts:

i) The general approach to all India level, as observations from above. For this, the studies of Bhavani Sen, S.C. Gupta and G. Kotovsky are considered.

ii) The general approach to all India level from tour experience and field work of Daniel Thorner and Utsa Patnaik respectively.

iii) Study of Northwest India by A. Rudra, A. Hajid and B.D. Talib (a joint study).

iv) Studies in Eastern India by A. Bhanduri, Pradhan H. Prasad, H.K. Chandra (separate studies) and a Rudra and and P. Burdhan (a joint study).

v) Study of Western India by Jan Breman.

vi) Studies in Southern India by Joan Hencher, and John Harris.

57. Alice Thorner, "Semi Feudalism or Capitalism" Economic and Political Weekly, December 4, 11 & 18, 1982.

It may be appropriate at this stage to consider what is meant by capitalism. This arises because the debate going on is to settle the issue whether the mode of production is of capitalism or semi-feudalism. Utsa Patnaik and Paresh Chattopadhyaya in their debate brought to light Marx's definitions of capitalism. Paresh Chattopadhyaya takes Marx's definition from Capital Vol II, as quoted by Lenin. This definition involves two aspects, one being the generalised commodity production (i.e producing for the market) and the other being human labour-power assuming the form of a commodity.⁵⁸ Utsa Patnaik takes Marx's definition from Capital Vol. III⁵⁹ and says that the generalised commodity production and labour-power becoming a commodity are only necessary conditions but not sufficient. She suggests a sufficient condition, taking from Marx, "accumulation and reinvestment of surplus value in order to generate more surplus value"⁶⁰

58. Paresh Chattopadhyay, "Mode of Production in Indian Agriculture" in Studies in the Development of Capitalism in India, Vanguard Books Ltd., Lahore, 1978, p. 232.

59. Utsa Patnaik, "On the Mode of Production in Indian Agriculture - A Reply" in Studies in the Development of Capitalism in India, Vanguard Books Ltd., Lahore, 1978, pp 211 & 212.

60. Utsa Patnaik, "Capitalist Development in Agriculture A Note", in Studies in the Development of Capitalism in India, Vanguard Books, Ltd., Lahore, 1978, p.60.

(1) Observations from above of Bhavani Sen, S.C. Gupta and G. Kotovsky.

Bhavani Sen, who was associated with peasant movement in India, observed that in 1962, the growth of capitalist relations of production was taking place on weak technical base and for this reason the main obstacle to agricultural progress had been the presence of remnants of feudalism.⁶¹ He recognised (4) four remnants of feudalism. (i) Inferior tenancy with precapitalist ground rent, (ii) unequal exchange between merchant and the peasant, (iii) Usury had its firm grip, and (iv) casteism had its bearing in rural exploitation. However, he also noticed the signs of breaking feudalism through (a) the abolition of Zamindari system, 20 millions tenants became owners of 40% of the land they cultivated and more than 80% land was self-operated, (b) About 1/4 of the cultivated area was operated by employing wage labour and (c) the technique of production was developing through irrigation, fertiliser-use and better implements. Further he accepted that the precapitalist modes of exploitation were also intensified, along with developing capitalist relations, as the government policy was compromising with semi-feudal elements.

61. Bhavani Sen, op.cit, p.47.

S.C. Gupta, in 1962, gave his impressions on penetration of capitalism in India⁶² in the following terms: (1) Ex-zamindars changed from using bonded labour (feudal relations) to wage labour. (2) There was positive association between the size of the farm on the one hand and the output, use of wage labour and use of modern technology (based on Farm Management Studies). (3) In Uttar Pradesh Farm Management Studies, landowners above 20 acres only could obtain surplus. (4) Despite Government's support prices, ceiling laws, subsidies and credit facilities, the land concentration on the the one hand and the de-peasantisation or proletarianisation or immiserisation on the other hand were taking place. Gupta cited Sholapur-gara village data as an example for proletarianisation or immiserisation. Within 4 years from 1954-55 to 1958-59, the cultivators below 12.3 acres were getting less output, net income, output per acre, and net income per acre, whereas the cultivators above 12.3 acres were getting higher amounts. By 1966, he was asserting, "The capitalist mode of production in India has established its supremacy

62. S.C. Gupta, "Some Aspects of Indian Agriculture", in Mode of Production in Indian Agriculture - Whither (in Telugu), George Reddi Publication Trust, Hyderabad, 1982.

with the installation of the Indian bourgeoisie into State power. In a capitalist economy the feudal burden on agriculture proved to be an anachronism and had to be liquidated⁶³. However he did not deny the fact that concealed forms of semi-feudal exploitation was going on in the countryside.

G. Kotovsky also made some observations on the emerging agrarian capitalism in India: (1) Leased in area decreased from 40% in 1950-51 to 20% in 1953-54. Within 3 years, this change was possible after abolition of Zamindari system. Some change might also be due to eviction of tenants due to impending Tenancy Laws. (2) He estimated that 25% to 30% of the total cultivated area was operated by engaging hired labour by late Fifties. Thus, if wage labour was alone taken as criterion, capitalist relations of production could be traced as far back as 1960. However, he did not overestimate the capitalist farming, as seen from his categorising capitalist farming as it was only the leading sector though not dominant one. Further he stated that it was neither capitalist sector nor the

63. S.C. Gupta: India's Agrarian Structure, Main Stream publications, 1966, p.27.

feudal sector that dominated Indian agriculture but "The predominant position both for operated area and labour force, is held by the small scale commodity peasant economy"⁶⁴ However, he accepted that the capitalist sector was still in the process of formation and said "we must not underestimate.....(it).....however anti-diluvian and transitional the forms in which it occurred"⁶⁵ Further he said that capitalist development was taking place on the old technical base.

ii) Tour Experience of Daniel Thorner and Field Work of Utsa Patnaik - Their General Approach.

Daniel Thorner, in 1960, said that what Indian Government was promoting through reforms and cooperatives etc., in the economic field was capitalism, but not socialism,⁶⁶ though Indian ruling classes were preaching socialism. He said that using such an analytical category as capitalism to Indian agriculture was to confuse oneself with the very complicated actuality of real life. But by 1967, he began to use capitalism to Indian agriculture. In his tour notes, he said (in 1967) "Before 1960's there used to be in the plains of India only a few pockets of

64. G. Kotovsky, op.cit, p. 158.
65. Ibid, p. 158 & 159.
66. Daniel Thorner, Land and Labour in India, Asia Publishing House, 1974, p.12.

genuinely capitalist agriculture - parts of the Punjab and Western Uttar Pradesh, Central Gujrat, Coimbatore and Coastal Andhra. Now for the first time there has come into being in all parts of the countryside in India, layer thick in some regions thinner in others, of agricultural capitalists.⁶⁷ He toured the villages in the districts Karnal (Haryana), Meerat (Uttar Pradesh), Kaira and Baroda (Gujrat), Thanjavur (Tamil Nadu), Basirhat (West Bengal, Patna district (Bihar) and Barabanki (Uttar Pradesh) in 1967. He observed the trend towards poultry farms, fruit orchards, vegetable and spice growing farms around the largest cities. He also noticed the gentleman farmers who began to treat agriculture as an industry for investment. He could see the effects of capitalism in agriculture from the reliance on power for mechanical and hydrological technology, changing cropping pattern based on profitability (from food to non-food or vice versa), improvement in the conditions of labourers and peasants through increased meals (to 2½ meals) etc., However he said, "The current emphasis on development in agriculture by purely

67. Daniel Thorner: "Capitalist Stirrings in Rural India", in Shaping of Modern India, Allied, New Delhi, 1981, p. 257.

technological improvements amounts to putting aside the land tenure tenancy problem as if it were not there!⁶⁸ In fact, Thorner noticed this problem in Bihar, West Bengal and even in Tamilnadu. In 1969, while responding to A. Rudra, Thorner reiterated the position that capitalist farming is stirring the rural life, and also recognised the regional variations. "A few pockets of capitalist farmers were to be found in certain regions of India, in the years before 1947. But their emergence as a significant group in every state is one of the facets of Industrial Revolution which is today changing the face of India. There are striking variations from State to State in the pattern and pace of the development of capitalist farming."⁶⁹

Utsa Patnaik took up a small survey in 1969 for 6 months, covering 10 districts scattered over five States in India. The districts are Tanjore and Coimbatore (TN), Mysore and Madya (Karnataka), Guntur and Godavari (Andhra Pradesh), Puri and Sambalpur (Orissa) and Kaira and Ahmedabad (Gujrat). In her survey she included 66 interviewers who were landowners operating more than 20 acres. In her analysis, she categorised them into (a) Landlord capitalists, (b) The dominant landholders, (c) Rich Peasants and (d) Urban

68. Ibid, p.235.

69. Daniel Thorner, "Capitalist Farming in India", in Studies in the Development of Capitalism in India, Vanguard Books Ltd, Lahore, 1978, p.42.

entrants. (a) Landlord capitalists were those who engaged wage labour in cultivating their land and also leased out land to tenants. ~~Misaki~~, the dependence on rental income was still prevalent. However, the shift from rental income was still prevalent. However, the shift from rental income to pure profit income was also noticed. (b) The dominant landholders comprised the big land-holders who traditionally cultivated large areas by hired labour, though with a low level of productivity and capital investment. She says "It is.....rare to find a a pure capitalist among dominant landholders"⁷⁰, as they were still indulging in traditional avenues of investment (Money lending etc). (c) Rich peasants were those peasant capitalists who adopted both modern and traditional techniques and produced for market as well as for consumption. In their cultivation the size of the farm did not stand for the scale of operation, as small farms also could have higher productivity. (d) The urban entrants are those gentleman farmers who invested in agriculture for profit as pure capitalists. In general she says, "capitalist development cannot but

70. Utsa Patnaik, "Development of Capitalism in Agriculture" in Studies in the Development of Capitalism in India, Vanguard Book Ltd., Lahore, 1978.

appear in an impure form carrying strong traces of pre-capitalist attributes"⁷¹ However, though she started with an extreme scepticism about the capitalist development, after complete field work she began to say: "A new class of capitalist farmers is emerging, this is a phenomenon common to every region, in so far as every area has been subjected to the same forces, albeit operating with varying intensity of an expanding market and enhanced profitability of agricultural production"⁷² She recognised that the development process though small cannot be denied.

Regional Studies:

iii) Study in North West India.

Ashok Rudra, A Majid and B.D Talib in their joint study of the most developed agriculture of Punjab, wanted to find capitalist farmers, as the reports of Daniel Thorner and Ladezensky were dependant on stray visits and conversation with some farmers. They surveyed 264 farms, above 20 acres, from 11 districts of Punjab. They said that the reason for their taking up large farms, operating more than 20 acres is "That we have assumed the inter-section

71. Ibid, p.110.

72. Utsa Patnaik, "Capitalist Development in Agriculture - A Note" in Studies in the Development of Capitalism in India, Vanguard Book Ltd., Lahore, 1978, p.55.

of the set of capitalist farms and the set of large farms to contain most of the elements of the set of capitalist farms"⁷³ They expected to observe the following 5 features in a capitalist farmer, as no rigorous definition of him is available:

- "(a) A capitalist farmer will tend to cultivate his land himself rather than give it out on lease;
- b) he would tend to use hired labour in a much greater proportion than family labour;
- c) He would tend to use farm machinery;
- d) he would be market-oriented, i.e. he would tend to market an important share of his produce, and
- e) he would be profit minded; i.e. he would tend to so organise his production as to yield a high rate of return on his investments"⁷⁴

The above features would be seen to reflect in the following variables:

- "(1) Percentage of land rented out to total land owned;
- (2) Wage payment in cash per acre of farm size (X_2)
- (3) Value of modern capital equipment per acre of farm size (X_3)

73. A. Rudra, "In Search of the Capitalist Farmer", in Studies in the Development of Capitalism in India, Vanguard Books Ltd., Lahore, 1978, p.45.

74. Ibid, p.45.

4) Percentage of produce marketed to total produce (X_4); and

5) Cash profit per acre (X_5)⁷⁵

They proceeded to find "The anatomy and philosophy of the animal which has been named capitalist farmer"⁷⁶ This, they thought, could be found, if there is strong positive association between the pairs of variables X_2 and X_3 ; X_2 and X_4 ; X_2 and X_5 ; X_3 and X_4 ; X_3 and X_5 ; and X_4 and X_5 . They said "our data, however, fail to indicate any strong association between any of these pairs"⁷⁷ As such, no capitalist farmer could be found in the Punjab. However, they could find that (i) only 27% of the farmers were leasing out land, which was indication of capitalist agriculture and (ii) there was positive strong association between the output per acre (X_4) and cash profit per acre (X_5). Further Ashok Rudra in response to Utsa Patnaik says "The fact that most of the variables taken in pairs fail to reveal strong positive association indicate that there has not yet been among the farmers of Punjab any strong polarisation and I have expressed doubt whether it serves any important purpose to talk about capitalist

75. Ibid, pp 45-46.

76. Ibid, p. 51.

77. Ibid, p.46.

development before polarisation has reached a sufficiently high degree"⁷⁸ This gives scope for his accepting the process of undergoing capitalist transformation in Punjab's agriculture.

iv) Studies in Eastern India.

In this region, the studies are highly controversial. Amit Bhaduri, Pradhan H. Prasad and N.K. Chandra separately in their studies arrived at semi-feudal relations of production. Pranab Burdhan and Ashok Rudra in their joint study arrived at capitalist relations of production. For all these studies the reference period lies between 1970 and 1975-76.

A. Bhaduri's study was based on the survey of 24 villages of three districts, Birbhum Nadia and Murshidabad of West Bengal, in 1970. He claims that he had studied the interaction between the relations of production and forces of production. As per him, the semi-feudal relations of production were constraining forces of production of agriculture. For him, semi-feudalism was reflected in the four features: (1) share cropping as unregistered

78. A. Rudra, "Capitalist Development in Agriculture - Reply" in Studies in the Development of Capitalism in India, Vanguard Books Ltd., Lahore, 1978, p.80.

tenancy, (ii) perpetual, indebtedness of tenants, as they had to take loan at 150- 200% of interest (iii) landowners acting as lenders of consumptions loans to their tenants, that is the double exploitation from landownership and usury were combined, (iv) Involuntary exchange in rural markets due to lack of credit facilities to the tenants, leading to distress sale of agricultural produce by the tenant as "The existing credit nexus involuntarily involved him as a seller in the market when prices are low and buyer when prices are high"⁷⁹. Bhaduri says that existing semi-feudalism would tend to perpetuate agricultural backwardness, through low level of technology or no technical change. It happens so because the landowners would not allow the tenants to adopt technical progress, by which their economic position would become better so as to keep them indebted and at low level of living. Further the rate of return on the costs of technical application would not be higher than the rate of return on the consumption loans to tenants, so long as the weaker bargaining position of the tenants would remain unchanged.

Pradhan H. Prasad had surveyed 3 districts. The survey of Purnea and Sahara districts in Kosi Command Area

79. A. Bhaduri, "An Analysis of Semi-feudalism in East India", Frontier, September 29, 1973.

was made in January-December, 1970 to evaluate economic benefits. It covered 1597 households of 11 villages. The survey of Monghyur district; covering 760 households of 12 villages, was made in January-June, 1972, with a view to assess the structure of rural unemployment. In his evaluation of relations of production as semi-feudal relations, he dealt with (a) attached labour, (b) indebtedness among labouring household and tenants, due to the practice of usury by landowning class, (c) share cropping of 50:50 in unrecorded tenancies, (d) low wage rate; and (e) the average income of labourer was Rs. 20.2 whereas the required minimum was Rs. 30. Thus the labouring households and tenants had to depend on consumption loans. The landowning class did not allow the share croppers to grow second crop of Rabi (wheat), with a view that share croppers' conditions should not improve. This would lead to agricultural backwardness. He explained his model of semi-feudalism, just as Bhaduri. The land owning class, with its control over land and rural masses, would involve in two modes of appropriation of surplus, share cropping and

usury. This would lead to low level of consumption of the rural masses, low productivity of land and labour and negligible net investment in agriculture.⁸⁰

N.K.Chandra's study⁸¹ was based on the survey of three villeges from Burdwan district in 1974. From his study, he divided the farmers into big, rich and medium as well-to-do farmers on the one hand and small peasants and agricultural labourers, on the other. He found that the top farmers did not invest their surplus in land but they invested in the tertiary operations, such as; buses, mills, hotels, druggist shops etc. Then he arrived at the conclusion that the relations of production were semi-feudal, while agreeing with the explanation of semi-feudalism of A. Bhaduri. But he added that surplus labour in agriculture also is to be taken into account.

Franab Bardhan and A.Rudra took up a study in the East India, with an intention, "Not merely for settling pedantic debates, on the dominant mode of production, but also, in shaping basic directions in agrarian policy and in designing the broad outlines of

80. Pradhan H. Prasad, "Production Relations-Achilles Heel of Indian Planning", Economic and Political Weekly, May 5, 1973.

81. N.K. Chandra, "Agrarian Transition in India", Frontier, November, 22 and 29 and December 6, 1975.

political programmes for the peasantry"⁸² The survey covered 110 villages from West Bengal, 101 from Bihar and 65 from Eastern Uttar Pradesh during the period 1975-76. Their results may briefly be noted as follows:

- (i) The principal occupation of landlords of the tenants was not money-lending. (ii) More than 60% of the landlords of the tenants were self-cultivating. (iii) Villages, where professional money lenders were leasing out land, were technically progressive. (iv) Consumption loans were interest free in West Bengal in 45% cases and rare in Bihar and Uttar Pradesh (v) The landlords gave loans to tenants to meet production needs. (vi) The landlords bore the part of production costs, reported in 64%, 53% and 58% cases of West Bengal, Bihar and Uttar Pradesh. (vii) Obligatory labour as either unpaid or underpaid services by the tenants to landlord was far from being the general pattern. (viii) Bonded labour also seemed to be unimportant. (ix) Indebtedness of agricultural labourers to employers and farm servants taking consumption loans were prevalent in technologically advanced or moderately advanced villages. (x) The occupation of employers of the farm servants was also cultivation. (xi) In regard to relation between

82. P. Bardhan and A. Rudra, "Interlinkage of Land, Labour and Credit Relations: An Analysis of Village Survey Data in East India", Economic and Political Weekly, February, Annual, 1978.

attachement of farm servants and technological development, it was found; "In almost all cases of long term attachment of farm servants the employer thus seems to be technologically progressive". (xii) Eviction of tenants was reported in advanced or highly advanced villages.

From the above results, they criticised the theorists of semi-feudalism, particularly Bhaduri and Prasad. They say "The recent theorists of semi-feudalism would have us believe that in the landlord-tenant relationship, usury dominates as the mode of exploitation and the landlords' considerations of usurious income from the indebted tenants hamper the former's incentive to encourage production and productive investment. Evidence in Eastern India is quite contrary to this hypothesis"⁸³. Further they say that the exploitation was not through extra-economic coercion and "Needless to say, the economic constraints faced by the small share cropper or the attached labourer are much severe and they frequently push him into unequal relationships of mutual dependence with the landlord-creditor-employer. But surely unequal contracts and economic exploitation are not distinguishing features of feudalism

83. Ibid.

as opposed to other modes of production"⁸⁴ This amounts to say that capitalist mode of production was prevalent in Eastern India.

v) Study in Western India.

Jan Beman survey two villages, Chikhligam and Gandevigan of south Gujrat, to know how the hali system was working. The selection of villages was taken consciously their being nearer to a city. The period of study is 1962-63 and further observation in 1971.

Like jajmani system the hali system was also dependent on patron client relationships. The hali system was prevalent in South Gujrat. "Hali was the term applied to a farm servant who with his family was in the permanent employ of a landlord, a dhaniamo"⁸⁵ says Beman. This was prevalent in 19th century, the system was dis-integrating only after Independence, though the process of disintegration started at the turn of this century. This system in nineteenth century, "In South Gujrat was essentially a form of unfree labour that was complicated and mitigated by a relationship of patronage"⁸⁶. The patrons belonged

84. Ibid.

85. Jan Beman, "Patronage and Exploitation-Changing Agrarian Relations in South Gujrat, Manohar Publications, 1979, p.56.

86. Ibid, p.7.

to the caste Anavil Brahmins and the clients (the halls) belonged to the caste, Dublas.

In his survey, Breman, dealt with only these two castes. The Anavil Brahmins were the big landowners and the Dublas the agricultural labourers, attached to the landowners. There was concentration of land in the two villages studied. In Chikhligam 7% Anavils owned 37% of land and in Gandovigam 22% Anavils owned 71% of land. The Dubals formed 10% and 43% of the total population in these villages respectively. The Anavils, with their influence in social life of the villages in addition to their economic position as land owners, subjected the Dublas to semi-feudal exploitation even in 1962 -63, as made clear by Breman". The difference between past and present is more than one of degree"⁸⁷ Further "The living standard of the agricultural labourers, low to begin with, deterioriated further when allowances in kind were replaced by money wages. Most of them are continually indobted and this is the main p reason why in budget calculations of households of agricultural labourers, expenditure always turns out to exceed income. The dobt binds the Dublas and provides the landlords with a

87. Ibid, p.225.

means of pressure. In the long term it is cheaper and safer for the landlords to give a limited loan to a farm servant than to hire day-labourers. Moreover, they select the most industrious and obedient labourers for farm services".⁸⁸ Though the resistance developed against Anvils the Dublas could not escape the control of the dominant landowners, as the Dublas depended on them for their livelihood.⁸⁹ The green revolution had aggravated the situation of the Dublas, due to (i) increasing economic gap and (ii) disintegrating patron-client relationship, leaving them in isolation. As such Breman says "Improvements of the condition of the Dublas can be expected only if there is a fundamental change in the relationships of power and property, but possibility of this is remote".⁹⁰

After 1971 visits to those villages, Breman noticed the fundamental shift in the mode of production to capitalism as the base of agriculture, due to the effects of mechanisation and green revolution. But "The economic situation of the Dublas, miserable as it was, had deteriorated even more.....they have been forced further into corner".⁹¹ In his subsequent investigations, he

88. Ibid, p.225.

89. Ibid, p.227.

90. Ibid, p.229.

91. Ibid, pp.255 & 256.

found that there was going on the expulsion of the unwanted members of the rural community from the agricultural system. These unwanted members formed neither part of urban system nor of rural system and hence were called sub proletariat.⁹²

vi) Studies in Southern India.

Joan Mancher in her study of 10 villages of Chingleput district of Tamilnadu in the years 1966-67 and 1970-71, brought out a very rough socio-economic classification. She believes that it is the landless labourers, unconstrained by ties to the land, who have been the main agitators or strikers. Her division of classes depends on the possession of land by the operators of land: (i) The landless population, deriving livelihood from working in agriculture, as day-labourers, attached permanent servants and share croppers; (ii) Poor peasants, owning small pieces of land between 1 and 2.5 acres, also depending on wage labour; (iii) Middle peasants, owning land above 2.5 acres, also employing wage labour, who were self-sufficient, (iv) Rich farmers owning land between 7.5 and 15 acres, who were not only self-sufficient

92. P.C.Joshi, "Poverty, Land Hunger and Emerging Class Conflicts in Rural India", in S.Jones et.al; (ed) Rural Poverty and Agrarian Reform, Allied, 1982, p.77.

but producers for the market; (v) Rich farmers, capitalist farmers and traditional landlord, owning and land between 15 and 30 acres. Only traditional landlords leased out lands under various tenancies. Others depended on wage labour. (vi) Intermediate class of large landholders, owning more than 30 acres.⁹³

She further found that the class and caste hierarchies overlapped. Poor peasants and landless labourers belonged to the lower castes and untouchables. All the big landowners belonged to higher castes, viz Brahman, Raddiar and Mudaliar. However, within the same caste, the classes could be seen minority owning large lands and majority owning small lands or no lands. As such, the class antagonism was being mitigated by caste relations. It amounts to say that her study recognises that the relations of production were of capitalism in agriculture.

John Harris also made a village survey in Eastern North Arcot District of Tamilnadu. The village is called Random by the author. He also made use of the results of the survey of 12 villages randomly selected by the Cambridge project. His village study pertains to the period 1973-74. He claims that his study is different from structural-functional analysis of encapsulation, and

93. Alice Thorner, op.cit.

in his study "village and state are joined in a dialectical unity"⁹⁴ ignored in the notion of encapsulation. He had divided the agricultural classes on the basis of Livelihood Farm Unit (LFU) and the dependence on merchant and usurers' capital, as follows:

i) Big farmers/capitalist farmers: They owned more than 4 LFUs. They managed with attached labourers, i.e. without personal labour.

ii) Rich Peasants/Independent Middle Peasantry:

They owned 2 to 4 LFUs. They used to operate land with attached labourers or family labour or hired labour. Any one or more would be engaged.

iii) Middle peasants/Dependent middle peasantry:

They owned 1-2 LFUs. In this, the land is operated with attached labourers, or with wagelabour and family labour. Some would be owner-tenants and some would engage in wage labour.

iv) Small peasants and agricultural labourers:

Small peasants owned less than 1 LFU. They engaged in wage labour or worked as tenants. Further agricultural labourers were fully dependent on wage labour.

94. John Harris: Capitalism and Peasant Farming-Agrarian Structure and Ideology in Northern Taminadu, Oxford U.P., Delhi, 1982, p17.

The first two classes were called "Substantial Household producers" and the latter two classes were "Dependent Household producers". As per him, "The major distinction that should be made perhaps is that between dependent household producers - whose reproduction is predicated upon the layer of merchant capitalists in the economy - and the substantial households which do not exhibit this kind of dependence"⁹⁵

In his study, he classified the mode of production to be of intermediate forms of capitalism as explained by Marx in Grundrisse. He says "While this (the introduction of pump sets), with introduction of HIV has brought about some entrenchment of capitalism in production, the dependence of the mass of the rural population upon money-lending, merchant capital still persists"⁹⁶ He accepts that the contradiction lies between the dominant class of landowner/rich peasant/merchant/moneylenders on the one hand and the mass of rural population.⁹⁷ As such, he says "so long as the agrarian structures of acres like eastern North Arcot remain unreformed with

95. Ibid, p. 208.

96. Ibid, p.210.

97. Ibid, p.287

large numbers of marginal holdings, capitalist transformation (according to classical model) will remain incomplete!⁹⁸

From the review of the debate on mode of production in Indian agriculture, it is clear that the capitalist mode of production is rising to the level of dominant mode. Yet the agricultural sector has not completely been free from the merchants and money lenders's capital. However, the exploitation in agriculture is not by extra-economic coercion. The development of capitalism in agriculture assumes diverse forms, as made clear by Lenin. The gradual transformation of agriculture into capitalism on the one hand and increased dependence of population (due to increased population and less speedy industrial development) on agriculture, on the other, would take some more time.

98. Ibid, p. 210.

CHAPTER III

CHAPTER III

INTER-STATE VARIATIONS AND TEMPORAL CHANGES IN HOUSEHOLD OWNERSHIP HOLDINGS

The distribution of household ownership holdings has a great bearing on the economic life of farming community. In fact for finding any association with poverty, the use of ownership holdings is more relevant. As such the distribution of ownership holdings is taken up first, leaving the discussion on operational holdings to the next chapter.

Depending on the availability of data, five aspects of ownership holdings are examined. These five aspects are the inter-State variations in (a) Percentage of landless households, (b) Average size of holdings, (c) Inequalities in ownership holdings measured through Gini coefficient value, and (d) Variations in the distribution of ownership holdings by farm size and also (e) Changes in the distribution of holdings.

3.1 Percentage of Landless Households

The inter-State variations and changes in the percentage of landless households are examined for three periods

viz., 1953-54, 1960-61 and 1970-71. In order to bring out the variations, the States have been divided into 3 categories depending on the level of landless households. The categories are the levels of the percentage of the landless households in the States. They are (i) Low level - the percentage being less than 10 per cent, (ii) Medium level - the percentage being between 10 to 20 per cent, and (iii) High level - the percentage being above 20 per cent. Table 1 gives the relevant figures of States.

3.1.1 All India

In 1953-54, at all India level the percentage of landless households was 23.09 per cent. In 1960-61 it has reduced to 11.68 and further to 9.64 per cent in 1970-71. Thus, between 1953-54 and 1960-61, there was an appreciable decrease in the percentage of landless households. It had reduced almost by half. However, the period between 1960-61 and 1970-71 noticed a marginal decline in the percentage of landless households in India.

Table-I : The Percentage of Landless Households in the total Households of Household ownership Holdings in States - 1953-54, 1960-61 & 1970-71

Range of % Landless Household	1953-54		1960-61		1970-71	
	States with percentages		States with percentages		States with percentages	
< 10% (Low)	Uttar Pradesh	(9.36)	Uttar Pradesh	(2.78)	Jammu & Kashmir	(0.96)
			Andhra Pradesh	(6.84)	Rajasthan	(2.91)
			Orissa	(7.84)	Bihar	(4.34)
			Bihar	(8.63)	Uttar Pradesh	(4.55)
			Madhya Pradesh	(9.14)	Andhra Pradesh	(6.95)
					Runjab	(9.10)
					Madhya Pradesh	(9.58)
				West Bengal	(9.78)	
10-20% (Medium)	Orissa	(12.25)	Jammu & Kashmir	(10.93)	Orissa	(10.57)
	Bihar	(16.56)	Rajasthan	(11.84)	Karnataka	(12.46)
	Jammu & Kashmir	(17.31)	Runjab	(12.34)	Gujrat	(13.44)
			West Bengal	(12.56)	Kerala	(15.74)
			Gujrat	(14.74)	Maharashtra	(15.83)
			Maharashtra	(16.03)	Tamilnadu	(17.09)
			Karnataka	(18.64)		
> 20% (High)	West Bengal	(20.24)	Tamilnadu	(24.20)	Assam	(24.99)
	Karnataka	(21.42)	Assam	(27.77)		
	Rajasthan	(24.85)	Kerala	(30.90)		
	Andhra Pradesh	(26.53)				
	Maharashtra	(28.25)				
	Madhya Prad.	(29.61)				
	Gujrat	(30.50)				
	Tamilnadu	(33.36)				
	Runjab	(33.36)				
	Kerala	(36.94)				
Assam	(41.58)					

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3.1.2 Inter-State Variations - 1953-54

There were considerable variations in the percentage of landless households among the States. The regional pattern is as follows:

- (i) Low Level States There was only one State with lowest percentage of landless households (9.36 per cent). It was Uttar Pradesh.
- (ii) Medium Level States There were three States in the Medium category wherein the percentage of landless households varied between 10 to 20 per cent. The States were Orissa, Bihar and Jammu and Kashmir. Two of the three States were from Eastern India. The percentages of landless households ranged between 12.29 to 17.31 per cent.
- (iii) High Level States The rest of the States in the country (eleven in number) had high level of landless households in 1953-54. The percentage of landless households ranged from 20.54 per cent for West Bengal to 41.58 per cent for Assam. The other nine States came from Southern, Central and North-West India. The percentages of landless households were relatively high in Tamil Nadu, Punjab, Kerala and Assam.

3.1.3 Inter-State Variations 1960-61

In 1960-61, since the all India average of the landless households had reduced, there was a general shift in the composition of States from high to low and medium level range. The range-wise composition is as follows:

- (i) Low Level States: There were 5 States in Low range category. These States were Uttar Pradesh, Andhra Pradesh, Orissa, Bihar and Madhya Pradesh. The proportion of landless households varied from 2.78 to 9.14 per cent.
- (ii) Medium Level States: There were as many as seven States in the middle category, viz., Jammu and Kashmir, Rajasthan, Punjab, West Bengal, Gujarat, Maharashtra and Karnataka. Among these States, three States were from Western India and one from Northern India. The percentages of landless households in this category ranged between 10.93 and 18.64. All States, except Jammu and Kashmir, had the percentages above all India average (11.63 per cent).
- (iii) High Level States: The high level percentage of landless households was noted in Tamil Nadu, Assam and Kerala. In Kerala, it was the highest (30.90 per cent). In all these States the percentage of landless households was higher than all-India average.

3.1.4 Inter-State Variations: 1970-71

In 1970-71, at all India, there was a further decline in the percentage of landless households. Fortunately the fall in proportion of landless households was accompanied by a shift of some more States into low level category of landless households. The category-wise pattern is as follows:

(i) Low Level States: In 1970-71, more than 50 per cent of the States (eight) had low level of landless households. These were Jammu and Kashmir, Rajasthan, Bihar, Uttar Pradesh, Andhra Pradesh, Punjab, Madhya Pradesh and West Bengal. In these States, the percentage of landless households varied between 9.96 and 9.78 per cent.

(ii) Medium Level States: There were 6 States in middle range category wherein the percentage of landless households varied between 10.57 and 17.09. The States included were Orissa, Karnataka, Gujarat, Kerala, Maharashtra and Tamil Nadu.

(iii) High Level States: Only one State of Assam had the highest percentage of landless households (24.99) in 1970-71.

3.1.5 Changes Between 1953-54 and 1960-61
and 1960-61 to 1970-71

Coming to the changes, at all India level there was a considerable fall in percentage of landless households between 1953-54 and 1960-61 and further between 1960-61 and 1970-71. The decline was shared by all the States in 1960-61. Between 1960-61 and 1970-71, except for four States most of the States experienced a decline in percentages of landless households. The States which had shown increases were Andhra Pradesh, Madhya Pradesh, Orissa and Utter Pradesh.

The drastic decrease in the percentages of landless households may be attributed to the factors, such as successful implementation of abolition of zamindari system, the definitional change in regard to the ownership of land; in 16th, 17th and 26th rounds of NSSS, wherein, "Besides pure ownership of 8th round, it also included land held in owner like possession, e.g., land held on long-term lease etc."¹; and successful distribution of land (10.7 million

1 S.K. Sanyal, "A Review of the Conceptual Framework of Land Holdings Surveys", IJAE, July-Sept., 1976.

acres of cultivable waste) to the landless agricultural labourers in the first three Plan periods.²

3.2 Average Size of the Household Ownership Holding (Excluding Landless Households)

In this section the purpose is to examine the State-wise variations in average size of ownership holdings. To bring out inter-State variations, the States have been divided into three categories, viz., Low level - average size, its being less than 1.5 ha., (ii) Medium level - average size, between 1.5 to 3.00 ha. and (iii) High level - average size, greater than 3.00 ha. The data has been presented in the Table II.

3.2.1 All India - Average Size and Changes

In 1953-54, the average size of the holdings in India was 2.53 ha. It has reduced to 2.01 ha. in 1960-61 and to 1.69 ha. in 1970-71. So there was a gradual decline in the average size of ownership holdings in India.

2 P. Burdhan, "Trends in Land Relations - A Note", EPW, Annual, 1970.

**Table- II : Average Size of Ownership Holdings
1953-54 , 1960-61 and 1970-71**

Range in Hectares	1953-54		1960-61		1970-71	
	States		States		States	
< 1.5 Ha. (Low)	Kerala	(0.82)	Kerala	(0.74)	Kerala	(0.50)
	West Bengal	(1.22)	Tamilnadu	(0.95)	West Bengal	(0.78)
	Tamilnadu	(1.39)	West Bengal	(1.07)	Tamil Nadu	(0.89)
	Bihar	(1.43)	Assam	(1.17)	Bihar	(0.93)
	Jammu & Kashmir	(1.45)	Bihar	(1.23)	Orissa	(1.07)
			Jammu & Kashmir	(1.27)	Jammu & Kashmir	(1.09)
			Orissa	(1.42)	Uttar Pradesh	(1.14)
			Uttar Pradesh	(1.43)	Assam	(1.18)
1.50 -3.00 Ha. (Medium)	Uttar Pradesh	(1.52)	Andhra Pradesh	(1.84)	Andhra Pradesh	(1.59)
	Orissa	(1.67)	Punjab	(2.23)	Punjab	(1.68)
	Assam	(2.06)			Karnataka	(2.34)
	Andhra Pradesh	(2.69)			Gujrat	(2.69)
> 3.00 Ha. (High)	Punjab	(3.62)	Karnataka	(3.22)	Maharashtra	(3.03)
	Karnataka	(3.63)	Madhya Pradesh	(3.39)	Madhya Pradesh	(3.06)
	Maharashtra	(4.17)	Gujrat	(3.44)	Rajasthan	(4.52)
	Madhya Pradesh	(4.44)	Maharashtra	(3.57)		
	Gujrat	(5.46)	Rajasthan	(4.97)		
	Rajasthan	(6.21)				

3.2.2 Inter-State Variations 1953-54

In 1953-54 there were 5, 4, and 6 States in low, medium and high range respectively. So the number of States in high level range was comparatively high. The State-wise pattern is as follows:

- (i) Low Level States: There were 5 States in the Low category, viz., Kerala, West Bengal, Tamil Nadu, Bihar, and Jammu & Kashmir. In these States the average size of holdings varied between 0.82 to 1.45 ha.
- (ii) Medium Level States: There were 4 States in this category which included Uttar Pradesh, Orissa, Assam, and Andhra Pradesh. The lowest average size in this group was 1.52 ha. and the highest was 2.69 ha.
- (iii) High Level States: As many as 6 States had a large average size of ownership holdings. The average size varied between 3.62 to 6.21 ha. The States were Punjab, Karnataka, Maharashtra, Madhya Pradesh, Gujarat, and Rajasthan.

3.2.3 Inter-State Variations 1960-61

Since the average size of ownership holdings had declined in 1960-61 it had led to rise in the number of States in the low range category.

(i) Low Level States: There were 8 States in low range category, viz. Kerala, Tamil Nadu, West Bengal, Assam, Bihar, Jammu and Kashmir, Orissa, and Uttar Pradesh. The average size varied in this group between 0.74 to 1.43 ha.

(ii) Medium Level States: There were only 2 States in this category. They were Andhra Pradesh and Punjab, with sizes of 1.84 and 2.23 ha. respectively.

(iii) High Level States: There were 5 States in this category, viz. Karnataka, Madhya Pradesh, Gujarat, Maharashtra and Rajasthan. The sizes ranged in 3.22 and 4.97 ha.

3.2.4 Inter State Variations 1970-71

In 1970-71, there was a further shift in the States towards low and medium average size categories as would be clear from the description given below.

(i) Low Level States: As many as 8 States had a low average size. These were Kerala, West Bengal, Tamil Nadu,

The inequality in ownership of area in relation to holdings has been measured with the help of Gini coefficient which gives the value of coefficient of concentration. Gini coefficient can also be conveniently used for cross-sectional comparison and for the temporal changes in the States. The formula of Gini-coefficient used, has been given in the Methodology in Chapter I.

Table III shows the Gini coefficient values for the States during 1953-54, 1960-61 and 1970-71. In order to bring out the inter-State variations, the States have been divided into 5 categories, depending on the value of Gini coefficient. The categories are as follows:

- i) Very Low Concentration Level : Less than 0.50
- ii) Low Concentration Level : 0.50 to 0.55
- iii) Moderate Concentration Level : 0.55 to 0.60
- iv) High Concentration Level : 0.60 to 0.65
- v) Very High Concentration Level : Greater than 0.65

3.3.1 All India Level and Changes

The Gini Coefficient in 1953-54 at all India level was 0.6764. Its value in 1960-61 and 1970-71 were 0.6801 and 0.6748 respectively. Gini Coefficient showed very

**Table -III : Gini Coefficient values of Ownership Holdings
in States 1953-54, 1960-61 and 1970-71**

Range of Gini value	1953-54 States	1960-61 States	1970-71 States
< 0.50 (Very Low)	Nil	Jammu & Kashmir (0.4741) Assam (0.4855)	Jammu & Kashmir (0.4109) Assam (0.4949)
0.50-0.55 (Low)	Jammu & Kashmir (0.5067) Assam (0.5438)	Nil	Nil
0.55-0.60 (Moderate)	Madhya Pradesh (0.5725) Rajasthan (0.5892) Gujrat (0.5976)	Karnataka (0.5854) Madhya Pradesh (0.5999)	Madhya Pradesh (0.5810) Orissa (0.5887) Rajasthan (0.5946)
0.60-0.65 (High)	Uttar Pradesh (0.6141) Punjab (0.6157) Maharashtra (0.6333) Orissa (0.6381) Kerala (0.6396) Bihar (0.6439)	Uttar Pradesh (0.6060) Rajasthan (0.6102) West Bengal (0.6130) Gujrat (0.6264) Kerala (0.6450)	Uttar Pradesh (0.6076) Kerala (0.6080) Karnataka (0.6128) West Bengal (0.6178) Maharashtra (0.6195) Gujrat (0.6420)
70.65 (Very High)	West Bengal (0.6566) Karnataka (0.6585) Tamil nadu (0.6856) Andhra Pradesh (0.7283)	Maharashtra (0.6500) Orissa (0.6529) Tamil nadu (0.6622) Bihar (0.6666) Punjab (0.7109) Andhra Pradesh (0.7937)	Bihar (0.6630) Tamil nadu (0.6839) Andhra Pradesh (0.7050) Punjab (0.7407)

Bihar, Orissa, Jammu & Kashmir, Uttar Pradesh and Assam. These States had low average size in 1960-61 also. In this group, the range varied between 0.50 and 1.18 ha.

(ii) Medium Level States There were 4 States in this category, viz. Andhra Pradesh, Punjab, Karnataka and Gujarat. So there was an increase in the number of States in middle level category in 1970-71. The average size varied between 1.59 to 2.69 ha.

(iii) High Level States There were only 3 States in high level category. These were Maharashtra, Madhya Pradesh and Rajasthan. The sizes varied between 3.03 and 4.52 ha. There was no great difference in the average sizes of Madhya Pradesh and Maharashtra.

3.2.6 Changes Between 1953-54 and 1960-61 and 1960-61 to 1970-71

We have noticed that the average size of ownership holdings has shown a continuous decline between 1953-54 and 1970-71. The decrease in average size was shared by all the States in 1960-61, and the decreases were sharp in Gujarat (6.46 - 3.44 ha.), Rajasthan (6.21 - 4.97 ha.), Punjab (3.62 - 2.23 ha.), Madhya Pradesh (4.44 - 3.39 ha.), Assam (2.06 - 1.17 ha.) and Andhra Pradesh (2.69 - 1.84 ha.).

Between 1960-61 and 1970-71 also, all the States, with exception of Assam, had experienced declines in their average size of holdings. However, the decreases in this period were not sharp as it was observed in period I. The decreases were somewhat high in Gujarat (3.57 - 3.03 ha.), Karnataka (3.22 - 2.34 ha.), Maharashtra (3.57 - 3.03 ha.) and Punjab (2.23 - 1.68 ha.). The average size of holdings had almost remained constant in Assam.

The continuous decreases in the average size of holdings could be attributed to the factors like (i) Increase in population leading to sub-division of holdings, (ii) Fragmentation of holdings as transfer from one generation to the other, (iii) the adjustment of lands on the names of relatives and friends so as to avoid the applicability of ceiling laws, as by 1960-61 itself, the ceiling laws were being enacted, debated and discussed everywhere.

3.3 Inequality in the Distribution of Ownership Holdings

In this section, the purpose is to study the inter-State variations in the distribution of ownership holdings.

high concentration in the ownership holdings. But surprisingly there was no substantial change in the concentration of ownership holdings over the period 1953-54 to 1970-71. In fact it had increased marginally between 1953-54 to 1960-61. The level of concentration in 1970-71 was the same (almost) as was found in 1953-54.

3.3.2 Inter-State Variations: 1953-54

In 1953-54, the inter-State pattern revealed great variations in the concentration ratios. The Gini Coefficient values varied from 0.5067 for Jammu and Kashmir to 0.7283 for Andhra Pradesh. Five States had shown low to medium concentration while the concentration ratio was high and very high in ten States. The state-wise pattern is follows:

(i) Very Low Concentration Level: There were no States in very low concentration category.

(ii) Low Concentration Level: In this category there were two States, viz. Jammu and Kashmir and Assam. These States together covered only 2.18 per cent net sown area in India.

(iii) Moderate Concentration Level: In this category, there were 3 States, viz. Madhya Pradesh, Rajasthan and Gujarat. These three States together covered nearly 28 per cent net sown area in the country.

(iv) High Concentration Level: Six States had shown high concentration ratios. These were Uttar Pradesh, Punjab, Maharashtra, Orissa, Kerala, and Bihar. The Gini Coefficient values in this group varied from 0.6141 to 0.6439. All these States together covered nearly 45 per cent net sown area in the country. So the States wherein the concentration in ownership holdings was high, covered a little less than fifty per cent of the net sown area in the country in 1953-54.

(v) Very High Concentration Level: There were 4 States in this category, viz. West Bengal, Karnataka, Tamil Nadu and Andhra Pradesh. Andhra Pradesh had the highest concentration. All these ⁴ states together covered 25 per cent net sown area in the country.

Thus, Regionally speaking in 1953-54, two thirds of the States (10), which covered the three-fourths of the net sown area (70 per cent) had a High and Very High

concentration in ownership holdings. Most of these States came from Southern, Eastern, Northern and North-Western India.

3.3.3 Inter-State Variations 1960-61

In 1960-61 the concentration at all India level had almost remained constant. But there were some changes in the position of States. There had been a shift towards high and very high concentration ratios with regard to some States.

(i) Very Low Concentration Level: There were 2 States in this category, viz. Jammu and Kashmir and Assam. They had Gini values of 0.4741 and 0.4855 respectively. But they together covered only 2.18 per cent of net sown area in the country.

(ii) Low Concentration Level: There were no States in this category.

(iii) Moderate Concentration Level: Two States had indicated moderate level of concentration. These were Karnataka and Madhya Pradesh. As compared to Karnataka,

Madhya Pradesh had a higher concentration ratio with Gini value 0.5999. These two States together covered 19.72 per cent net sown area in the country.

(iv) High Concentration Level: There were 5 States in high level category. These were Uttar Pradesh, Rajasthan, West Bengal, Gujarat and Kerala. Gini values in this group varies between 0.6060 and 0.6450. All these States together accounted for 35.53 per cent net sown area in the country.

(v) Very High Concentration Level: There were as many as 6 States in this category, viz. Maharashtra, Orissa, Tamil Nadu, Bihar, Punjab and Andhra Pradesh with Gini coefficient values varying between 0.6500 for Maharashtra and 0.7437 for Andhra Pradesh. All these States together covered 42.00 per cent of the net sown area.

If the comparison between 1953-54 and 1960-61 is of some importance, it may be said that during this period no trend towards reduction of inequalities was observed in the ownership holdings. As many as 11 States which covered 77.53 per cent of the net sown area in the country had shown high to very high concentration in the

ownership holdings in 1960-61. Only four States which covered only 22 per cent of net sown area in the country had a low and moderate level of concentration.

3.3.4 Inter-State Variations: 1970-71

In 1970-71, there was not significant change in the concentration ratios at all India level as well as in the States. In fact, the distribution of the States in different ranges had remained almost constant. The pattern is as follows:

(i) Very Low Concentration Level: There were two States in very low category, viz. Jammu & Kashmir and Assam. Jammu & Kashmir had the lowest value (0.4109) in all the States and Assam had its value nearer to the upper bound of very low category. These States together covered only 2.11 per cent of net sown area in the country.

(ii) Low Concentration Level: There were no States in low concentration level.

(iii) Moderate Concentration Level: Three States had indicated Medium level concentration. These include Madhya Pradesh, Orissa and Rajasthan. All these States accounted for 27.7 per cent of net sown area in the country.

(iv) High Concentration Level: Coming to high concentration ratios, six States had high concentration in ownership holdings. These were Uttar Pradesh, Kerala, Karnataka, West Bengal, Maharashtra and Gujarat. In this group the Gini values varied between 0.6076 and 0.6420. All these States together covered 44.8 per cent net sown area in the country.

(v) Very High Concentration Level: There were 4 States in this category, viz. Bihar, Tamil Nadu, Andhra Pradesh and Punjab. All these 4 States together covered 24.1 per cent net sown area in the country.

Thus, in 1970-71 the regional pattern had remained more or less constant. Two thirds of the States, covering nearly 70 per cent of the net sown area in the country, had high to very high concentration levels in the ownership holdings. Alternatively only five States had low to moderate level of concentration levels and these States covered only 30 per cent of the net sown area in the country.

3.3.5 Changes between 1953-54 and 1960-61 and 1960-61 to 1970-71

During 1953-54 to 1960-61, the Gini values had decreased in 6 States, viz. Assam, Jammu & Kashmir,

Karnataka, Tamil Nadu, Uttar Pradesh and West Bengal, while in 9 other States the Gini values had increased. However, the decreases were quite sharp in four States only. These were Assam (0.5438 - 0.4855), Jammu & Kashmir (0.5027 - 0.4741), Karnataka (0.6585 - 0.5854) and West Bengal (0.6566 - 0.6130) and the increase in the Gini value were high in Punjab (0.6157 - 0.7113), Gujarat, Bihar and Andhra Pradesh.

Between 1960-61 and 1970-71, concentration ratio had decreased in 8 States. These States were Andhra Pradesh, Bihar, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Orissa and Rajasthan. The decreases were quite substantial in Andhra Pradesh (0.7437 - 0.7050), Jammu & Kashmir (0.4741 - 0.4109), Kerala (0.6450 - 0.6080), Maharashtra (0.6500 - 0.6195) and Orissa (0.6529 - 0.5887). In the seven States the Gini values had increased and the increases were more in Punjab (0.7113 - 0.7409), Karnataka (0.5854 - 0.6128) and Gujarat (0.6264 - 0.6420).

In the end, the following important observations may be made: (a) In all the periods, majority of the States (10 to 11), which covered more than 70 per cent of net sown area in the country, had High or Very High

concentration in ownership holdings. And only 4 or 5 States, covering only about 30 per cent of the net sown area, had shown Very Low to Moderate concentration.

(b) In all the periods, Andhra Pradesh and Tamil Nadu, U.P. and Kerala had shown Very High to High concentration in ownership holdings. Assam and Jammu & Kashmir States had shown Very Low or Low Concentration level (Low only in 1953-54) in ownership holdings in all the periods under study.

3.4 Distribution of Area and Holdings - By Farm Size

In this section the main purpose is to examine the inter-state variations in the percentages of area owned and the number of holdings by farm-size-wise. NSS gives the distribution of area and holdings for eleven categories. In our efforts to bring out the inter-state variations in area and holdings by farm-size and for three periods, we realised that it was operationally very difficult to handle the variations for so many farm-size groups. In order to make the analysis operational and at the same time revealing, firstly the eleven size-

classes have been grouped into five size-classes which are as follows:

- i) Marginal famers class (0.002 - 1.00 ha.)
- ii) Small famers class (1.01 - 2.02 ha.)
- iii) Semi-Medium famers class (2.03 - 4.04 ha.)
- iv) Medium famers class (4.05 - 10.12 ha.)
- v) Large famers class (10.13 ha. and above)

In the second step, the different States were arranged into three groups depending on the domination of Small, Medium and Large famers in ownership of area and holdings. In this analysis the minimum purpose was to note the inter-State variations in the pattern of domination, in ownership of area and holdings in certain size-classes. The three typologies which are used in the analysis are as follows:

- i) States where Large and Medium famers had High level ownership of area holdings (more than 25 per cent of total area holdings).
- ii) States where Marginal and Small famers had High level ownership of area holdings (more than 25 per cent of total area holdings).

iii) States where Semi-Medium and Medium farmers had High level ownership of area/holdings (more than 25 per cent of total area holdings).

In this classification, States with a higher percentage of area/holdings in Large/Medium class would have low percentage of area/holdings either in Marginal/Small class or Semi-medium/Medium class. Similarly, states with high percentage of area/holdings in Marginal/Small class would have low percentage of area/holdings in Large/Medium class. And in some cases, the states may show different levels in other classes.

3.4.1 The Distribution of Area By Fam-Size

3.4.1.1 All India

The distribution of area for the three periods is shown in the statement given below:

PERCENTAGE DISTRIBUTION OF AREA AT ALL INDIA

Year	Marginal	Small	Semi-Medium	Medium	Large
1953-54	6.22	10.09	18.40	29.12	36.17
1960-61	7.59	12.40	20.54	31.23	28.24
1970-71	9.76	14.68	21.92	30.73	22.91

In 1953-54, at all India level, Marginal farmers owned a Low level area which was less than 10 per cent, while Large and Medium farmers had high level area which was 25 per cent and above of the total area. In 1960-61 similar pattern continued... In 1970-71, some changes had occurred. There was general decline in the percentage area of Large farmers, and as a result there was a general increase in the percentage of area in Marginal, Small and Semi-medium classes. The area under Medium farm group had remained constant. However, over time, the area owned by Marginal, Small, and Semi-medium groups had gradually increased.

3.4.1.2 Inter-State Variations 1953-54

Table IV gives the details of the percentages of area in the five broad size-classes in the three ranges, viz. (a) Less than 10 per cent, (b) Between 10 to 25 per cent and (c) more than 25 per cent. However, for simplification the three typologies have been presented in the Table V.

(1) The Table V revealed that in 1953-54, in as many as 7 States (around 50 per cent of the States) the percentages of area owned was High (more than 25 per cent)

TABLE IV : Percentage of Area owned in Five Broad Classes in Low, Medium and High Ranges, 1953-54, 1960-61 and 1970-71 - States.

Percentage Range of Owned Area	1	2	3	4	5
	Marginal	Small	Semi-Medium	Medium Large	Large
Less than 10% (Low)	RJS (1.47) GR (1.71) MP (2.29) MHR (2.65) KRN (3.19) PNJ (3.29) AP (5.27) AS (7.98) ORS (9.82)	GR (3.42) RJS (4.02) MHR (5.36) MP (5.62) PNJ (6.23) KRN (6.92) AP (7.90)	GR (8.87) RJS (9.71)		J&K (0.00)
10-25% (Medium)	UP (12.48) BH (12.66) TN (13.03) WB (15.90) J&K (16.39)	KRL (15.59) TN (16.33) BH (18.04) ORS (18.15) WB (18.59) UP (19.33) AS (21.04)	MHR (14.34) MP (15.15) AP (15.20) KRN (16.73) KRL (16.74) PNJ (17.29)	KRL (19.93) TN (21.84) AS (22.78)	WB (11.26) UP (12.48) BH (13.69) KRL (16.16) AS (18.01) ORS (19.16) TN (22.79)
Greater than 25% (High)	KRL (31.58)	J&K (25.78)	ORS (25.30) WB (25.51) TN (26.01) BH (26.25) J&K (28.49) UP (29.08) AS (29.99)	AP (26.30) UP (26.61) ORS (27.57) RJS (27.77) WB (28.74) J&K (29.34) BH (29.36) KRN (30.26) GR (30.56) MHR (31.19) MP (33.40) PNJ (35.81)	PNJ (37.38) KRN (42.96) MP (43.54) AP (45.03) MHR (46.52) GR (55.44) RJS (57.03)

Percentage Range of Opened Area	1 9 6 0 - 6 1				
	Marginal	Small	Semi Medium	Medium	Large
Less than 10% (Low)	RJS (1.80)	RJS (4.83)			AS (0.80)
	MHR (2.80)	MHR (5.50)			J&K (2.73)
	MP (3.03)	GR (5.66)			WB (3.38)
	GR (3.15)	PNJ (6.99)			TN (8.35)
	KRN (3.49)	KRN (7.30)			
	PNJ (3.88)	MP (7.46)			
	AP (8.17)	AP (9.69)			
10-25% (Medium)	ORS (11.39)	ORS (19.19)	RJS (12.86)	KRL (15.75)	UP (11.14)
	UP (12.34)	KRL (20.20)	MHR (13.41)	J&K (16.32)	KRL (13.48)
	BH (13.75)	BH (20.25)	GR (15.62)	AS (16.58)	BH (13.60)
	AS (15.49)	TN (21.67)	AP (16.97)	TN (22.95)	ORS (17.07)
	WB (17.54)	UP (22.61)	MP (18.21)	WB (24.30)	
	TN (20.00)		KRL (20.20)		
	J&K (20.34)				
Greater than 25% (High)	KRL (30.37)	WB (25.97)	BH (25.96)	ORS (25.58)	PNJ (30.28)
		J&K (28.62)	ORS (26.77)	BH (26.44)	KRN (31.18)
		AS (33.44)	TN (27.03)	UP (26.66)	MP (32.82)
			UP (27.65)	RJS (29.15)	AP (33.89)
			WB (28.81)	AP (31.28)	GR (37.90)
			J&K (31.99)	KRN (34.47)	MHR (42.51)
			AS (33.69)	MHR (35.78)	RJS (51.36)
				GR (37.67)	
				MP (38.48)	
				PNJ (38.53)	

Percentage Range of Owned Area	Marginal	Small	Semi Medium	Medium	Large
Less than 10% (Low)	RJS (2.03) MP (3.34) MHR (3.48) GR (4.53) PNJ (4.94) KRN (5.74) AP (9.92)	RJS (6.78) PNJ (8.22) MHR (8.59) MP (9.16) GR (9.94)		J&K (8.06)	J&K (0.00) WB (0.70) AS (1.64) KRL (2.96) ORS (6.00) UP (6.07) BH (6.67) TN (9.75)
10-25% (Medium)	UP (17.49) BH (18.20) TN (20.28) ORS (20.45) AS (22.15)	KRN (11.81) AP (13.16) TN (21.84) BH (23.43) KRL (24.32)	RJS (13.15) GR (16.73) MHR (18.34) KRL (19.95) AP (21.19) UP (24.65) MP (21.36) PNJ (22.31) KRN (24.84)	KRL (11.89) AS (15.20) WB (18.61) ORS (20.72) TN (22.97) BH (23.63) UP (23.85)	KRN (22.42) PNJ (22.93)
Greater than 25% (High)	WB (27.28) J&K (27.41) KRL (40.88)	WB (25.69) ORS (26.95) AS (30.22) J&K (39.38)	J&K (25.20) TN (25.21) ORS (25.88) WB (27.72) UP (27.94) BH (28.07) AS (30.79)	AP (30.15) RJS (32.89) KRN (35.19) MHR (35.45) GR (36.15) MP (37.80) PNJ (42.00)	AP (25.58) MP (28.34) GR (32.65) MHR (34.14) RJS (45.15)

Abbreviations used :

- | | | |
|----------------------|-----------------------|----------------------------------|
| AP = Andhra Pradesh, | AS = Assam | BH = Bihar |
| GR = Gujarat | J&K = Jammu & Kashmir | |
| KRN = Karnataka | KRL = Kerala | MP = Madhya Pradesh |
| MHR = Maharashtra | ORS = Orissa | PNJ = Punjab (including Haryana) |
| RJS = Rajasthan | TN = Tamil Nadu | |
| UP = Uttar Pradesh | WB = West Bengal | |

TABLE V : Classification of States into three Groups (Typologies) depending on the Percentage of Area owned, 1953-54, 1960-61 and 1970-71.

Groups (Typologies)	1953-54	1960-61	1970-71
i) Large and/ Medium Farmers owning High share of Area (More than 25 Percent)	Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, Karnataka, Punjab and Andhra Pradesh	Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, Karnataka, Punjab and Andhra Pradesh	Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, Karnataka, Punjab and Andhra Pradesh
ii) Marginal and/ Small Farmers owning High Share of Area	Kerala and Jammu & Kashmir	Kerala, Jammu & Kashmir, West Bengal and Assam	Kerala, Jammu & Kashmir, West Bengal Assam and Orissa
iii) Semi-medium and/ Medium farmers owning High Share of Area	Bihar, Orissa, Uttar Pradesh, West Bengal, Assam and Tamil Nadu	Bihar, Orissa, Uttar Pradesh and Tamil Nadu	Bihar, Uttar Pradesh and Tamil Nadu

among Large and Medium farmers. With the result in these 7 States the proportion of area owned by Small and Marginal farmers was Low (viz. less than 10 per cent). These seven states were: Punjab, Karnataka, Madhya Pradesh, Andhra Pradesh, Maharashtra, Gujarat and Rajasthan. These States came from Western, North, Western, Central and Southern India. Surprisingly, there was no state from Eastern India.

ii) In only two States, namely, Kerala and Jammu & Kashmir, the proportion of area owned by Marginal or Small farmers was high (more than 25 per cent). In the former State, only in Marginal farmers class the percentage was High which in the latter it was high in Small farmers class. Interestingly in Jammu & Kashmir, in Semi-medium class also there was High level area. However, in both the States, the distribution of owned area was biased towards Semi-medium and Medium classes.

iii) There were 6 States, wherein the percentage of area owned in Semi-medium and Medium classes was comparatively large i.e. High level with more than 25 per cent area. These States were: Bihar, Orissa, Uttar Pradesh, West Bengal, Assam and Tamil Nadu. In the first

four States, there had been High level area share in both Semi-Medium and Medium farmers classes. The other two States had High level area share only in Semi-Medium farmers class.

So in 1953-54, in most of the States, High percentage of area was shared by Large and Medium farmers classes followed by Semi-medium and Medium farmers classes. In only two States, viz. Jammu & Kashmir and Kerala, the percentage area owned by Small or Marginal farmers class was high. Here Jammu and Kashmir would fall in both the patterns (ii) and (iii), as an inter-section of the two sets.

3.4.1.3 Inter-State Variations 1960-61

In 1960-61, as it would be clear from the following discussion, there was no much change in the inter-state variations.

1) The same seven States, viz. Punjab, Karnataka, Madhya Pradesh, Andhra Pradesh, Gujarat, Maharashtra and Rajasthan had High percentage share in area (i.e. more than 25 per cent area). In all these States, there was Medium level area (between 10 to 25 per cent) in the Semi-medium farmers class. Gujarat and Rajasthan which had Low

percentage ^{of} area in Semi-medium class in 1953-54, had shifted to Medium level area.

ii) As far as the number of states, with High percentage of area being owned by Small/Marginal farmers is concerned, it had shown some change. In addition to Kerala and Jammu & Kashmir, there was an addition of two more States, viz. West Bengal and Assam. In respect of Kerala, High level area was found in Marginal class and percentage of area owned ^{was} high in all other 3 States in Small class. Further the latter 3 States had High level area in Semi-Medium farmers class also.

iii) There were 4 States, wherein the percentage of area owned by Semi-medium and Medium farmers class was relatively High (i.e. more than 25 per cent). These were Bihar, Orissa, Uttar Pradesh and Tamil Nadu. In the first 3 States, there was High level area in both Semi-medium and Medium classes and in Tamil Nadu, it was only in Semi-medium class. The number in the group had reduced from six in 1953-54 to four in 1960-61.

It may be noted that in 1960-61, there were 3 States, which would fall in both the patterns (ii) and (iii), as an intersection of the two sets.

3.4.1.4 Inter-State Variations 1970-71

In 1970-71 also, the state-wise pattern had not deviated much from that of 1960-61.

- i) Taking the States, wherein Large and/Medium farmers held High level share of owned area, it was found that the same seven states continued to bear the domination of Large and/Medium farmers. However, two states, viz. Karnataka and Punjab had lost dominance in Large farmers class and shifted to Medium level area (10 to 25 per cent area)
- ii) The number of States, wherein Marginal and/Small farmers enjoyed High share (greater than 25 per cent) in area had undergone some change. There were 5 States in this pattern. These were: West Bengal, Jammu & Kashmir, Kerala, Orissa and Assam. The first two States had High level area in the classes upto Semi-medium farmers and in the last 2 States, it was in Small and Semi-Medium classes.
- iii) In the third typology, where Semi-medium and/Medium farmers had High share of area (i.e. more than 25 per cent), there were only these States, viz. Tamil Nadu Uttar Pradesh and Bihar. As a matter of fact all these States had this level of area only in Semi-medium farmers class.

The increase in number of the States in the typology (ii) gradually from 2 in 1953-54 to 4 in 1960-61 and further to 6 in 1970-71, was simultaneously caused by the decrease in the typology (iii). Actually this happened so, because of the fact that those States had their presence in both the typologies (ii) and (iii) as the inter-section of the two sets. But the states were given place in the second typology.

The other important points to be noted from the Table IV could be the following.

- a) A group of seven States had shown high percentage of area in Large and/Medium farmers classe in all the periods under study. These ~~states~~ had Medium level area (10 to 25 per cent) in Semi-Medium classes in all the periods, with exception of Gujarat and Rajasthan for 1953-54. During 1953-54 these two States had Low level area (less than 10 per cent) in Semi-Medium class.
- b) All the seven States, referred to in (a), had Low level area in both Marginal and Small farmers classes, with the exception of Karnataka and Andhra Pradesh in Small class for 1970-71. In 1970-71, these two States had Medium level area in Small farmers class.

- c) The other seven States, which had Medium level area in Large farmers class in 1953-54, had gradually shifted to Low level area by 1970-71.
- d) Further, while there was reduction in the percentage of area in Large class of the States, where Large farmers had High share, the percentages in Medium farmers class had somewhat improved, overtime.
- e) All the seven States which had High level area in Semi-medium farmers class, remained in the same level for the three-periods.

3.4.2 The Distribution of Holdings by Farm-Size

After having examined the inter-state variations in the percentages of area, we now examined, the variations in the percentages of holdings by farm-size classes. In analysing the variations by farm-size wise, the same methodology as used for the percentages of area was also used here. The variations in the distribution of holdings for all India and States is discussed below.

3.4.2.1 All India - Distribution of Holdings

The distribution of holdings at All India level for the three periods is as follows

Year	% Distribution of Holdings				
	Marginal	Small	Semi-Medium	Medium	Large
1953-54	49.61	17.84	16.24	11.92	4.69
1960-61	54.79	17.16	14.56	10.27	3.82
1970-71	58.63	17.14	13.22	8.67	2.34

In 1953-54, at all India level, the proportion of holdings accounted for by Marginal class was Higher (more than 25 per cent), while the share of Large farmers class was Low (less than 10 per cent). The three intermediate classes held Medium level of holdings, varying between 10 to 25 per cent. In 1960-61, the same pattern was observed. In 1970-71, there was a decrease in the percentage of holdings in Semi-medium, Medium and Large classes, while the percentages of holdings had increased in Marginal class. The percentage in Small farmers class remained same throughout the period.

3.4.2.2 Inter-State Variations

The Table VI gives the figures on the distribution of States in three ranges (levels) of the percentage of holdings in the States.

TABLE : VI : Percentage of Number of Holdings of Ownership Holdings in Five Broad Classes in Low, Medium and High Ranges, 1953-54, 1960-61 and 1970-71 - States.

Percentage Range of Number of Holdings	1	2	3	4	5
	Marginal	Small	Semi Medium	Medium	Large
Less than 10% (Low)		KRL(8.76)	KRL(4.96)	KRL(2.73) TN(5.09) WB(5.81) J&K(6.74) UP(6.86) BH(7.13) ORS(7.69) AS(8.27)	J&K(0.00) KRL(0.53) WB(0.94) BH(1.13) UP(1.23) AS(1.47) TN(1.70) ORS(1.95) AP(5.77) PNJ(7.18) KRN(7.89) MHR(9.73) MP(9.97)
10-25% (Medium)	RJS(19.14)	GR(12.65) PNJ(14.71) AP(14.95) MHR(13.20) TN(15.48) WB(15.87) RJS(16.70) MP(16.96) KRN(17.26) BH(17.81) UP(20.30) ORS(20.51)	WB(10.77) TN(12.91) BH(13.17) AP(14.32) ORS(14.87) J&K(15.35) UP(15.72) GR(16.39) MHR(20.47) RJS(20.64) KRN(20.82) PNJ(21.58) AS(21.76) MP(23.12)	AP(11.24) KRN(17.44) PNJ(20.52) MHR(20.58) MP(23.89)	RJS(16.17) GR(16.54)
Greater than 25% (High)	MP(26.06) GR(28.45) MHR(34.02) PNJ(36.01) KRN(36.59) AS(39.40) J&K(51.87) AP(53.72) UP(55.89) BH(60.76) TN(64.82) WB(66.61) KRL(82.82)	J&K(26.04) AS(29.10)		GR(25.47) RJS(27.15)	

Percentage Range of Number of Holdings	1 9 6 0 6 1				
	Marginal	Small	Semi Medium	Medium	Large
Less than 10 % (Low)			KRL (5.57) TN (9.54)	KRL (1.98) AS (3.46) J&K (3.53) TN (3.82) WB (4.45) BH (5.70) ORS (6.43) UP (6.56) AP (9.25)	AS (0.06) WB (0.28) KRL (0.35) J&K (0.37) TN (0.51) BH (1.01) UP (1.07) ORS (1.40) AP (3.23) PNJ (4.25) KRN (5.76) MP (6.33) GR (7.97) MHR (8.85)
10-25 % (Medium)		PNJ (10.51) KRL (10.68) AP (12.30) GR (12.96) MHR (13.57) TN (14.61) KRN (15.89) RJS (16.05) MP (16.97) BH (17.33) ORS (18.70) WB (19.22) UP (22.00)	BH (10.88) WB (11.22) AP (11.78) ORS (13.97) UP (14.12) AS (14.47) J&K (15.24) PNJ (15.58) MHR (16.64) GR (18.37) UP (21.36) RJS (21.82)	PNJ (13.61) KRN (17.88) MHR (20.15) GR (20.72) MP (20.90) RJS (22.94)	RJS (12.64)
Greater than 25 % (High)	RJS (26.55) KRN (34.29) MP (34.44) GR (39.26) MHR (40.77) AS (48.85) J&K (54.84) PNJ (56.05) UP (56.25) ORS (59.50) AP (63.84) WB (64.83) BH (65.08) TN (71.52) KRL (81.42)	J&K (26.02) AS (33.16)	KRN (25.98)		

Percentage Range of Number of Holdings	Marginal	Small	Semi Medium	Medium	Large
Less than 10% (Low)		KRL(8.6) PNJ(9.47)	KRL(3.57) WB(8.09) TN(8.14) BH(9.57)	KRL(1.08) J&K(1.63) WB(2.54) AS(3.1) TN(3.51) BH(3.84) ORS(3.93) UP(4.69) AP(8.14)	J&K(0.00) WB(0.05) KRL(0.10) AS(0.14) BH(0.38) ORS(0.48) UP(0.51) TN(0.56) AP(0.43) PNJ(2.56) KRN(3.20) MP(5.36) GR(5.87) MHR(6.46)
10-25% (Medium)	RJS(24.77)	TN(13.72) WB(14.02) AP(14.6) BH(15.79) GR(17.61) MHR(17.74) KRN(18.59) MP(18.76) UP(19.49) ORS(20.22) RJS(20.46) AS(24.27)	J&K(10.09) ORS(10.10) UP(11.36) AP(12.06) AS(12.97) PNJ(13.51) GR(13.75) MHR(19.34) KRN(20.71) RJS(21.11) MP(22.72)	PNJ(11.84) KRN(13.54) GR(15.93) MHR(17.8) MP(19.04) RJS(23.30)	RJS(10.36)
Greater than 25% (High)	MP(33.92) MHR(38.64) KRN(43.96) GR(44.84) J&K(58.79) AS(59.43) PNJ(62.62) AP(62.70) UP(63.95) ORS(65.27) BH(70.42) TN(73.97) WB(75.20) KRL(86.58)	J&K(29.49)			

Abbreviations used:

- AP = Andhra Pradesh
- GR = Gujarat
- KRL = Kerala
- ORS = Orissa
- RJS = Rajasthan
- UP = Uttar Pradesh
- AS = Assam
- J&K = Jammu & Kashmir
- MP = Madhya Pradesh
- PNJ = Punjab (including Haryana)
- TN = Tamil Nadu
- WB = West Bengal
- BH = Bihar
- KRN = Karnataka
- MHR = Maharashtra

The Table shows that in 1953-54, in almost all the States in Marginal farm class the percentage of holdings was High (more than 25 per cent) and it was Low (less than 10 per cent) among the Large farmers. In Small and Semi-medium farmers classes, in almost all the States, the percentage of holdings was in Medium range (10 - 25 per cent). In Medium farmers class, however, the pattern varied between the States. There, eight States had Low level of Medium holdings, five States had Medium level while the other two had High Level of Medium size holdings.

In 1960-61, the pattern had remained almost the same. The only change was that in Medium farmers class, there was no state with High level of holdings, the holdings were confined to Low and Medium level range.

In 1970-71, in all the States except Rajasthan, the percentage of holdings in Marginal farmers class was relatively High. In, nine states the percentage of holdings in Small and Semi-medium farmers classes was in Medium level range. In fact, in Medium farmers class the position was the same as in 1960-61.

3.5 Changes in the Distribution of Area and Holdings

In the preceding section, we have examined the inter-State variations in the distribution of area and holdings by farm-size wise. In this section we propose to study the changes in the area in relation to the holdings in different States of India by farm-size.

In order to bring out the change in the position of each farm-size class, Inter-Class Concentration Ratio (ICCR) has been used. ICCR is a useful technique which helps in bringing out the changes in the inequalities in area owned in particular class, in relation to the number of holdings in that class. In other words, with the help of ICCR, we can note whether the percentage of area owned by a particular farm-size class is in proportion to its share in total holdings. Numerically speaking, if the value of ICCR is 100 per cent (i.e. ratio should be equal to unity), the percentage of area owned is in proportion to holdings in that particular class (i.e. equitable distribution across the classes); if it is more than 100, then it indicates that the area share is more than percentage share in holdings and vice versa. Thus,

the ICGR shows the inequalities in the distribution among the classes in a particular State, at a particular point of time. Changes in the value ICGR of a particular class, reveal the shift in favour or against the class. By looking at the ICGR of the two points, we can analyse the changes in its relative position in area with respect to holdings. Such change can also be tested by Chi-square for each class.

In order to examine the changes in the relative position of the classes, the ICGRs have been calculated for 11 farm-size classes given by NSS for all the States in India. To maintain the comparability between the States and the classes, some adjustments were made for the last classes (by clubbing together) in Jammu & Kashmir, Kerala, Assam and West Bengal. Finally, the ICGRs for three periods (1953-54, 1960-61, and 1970-71) and the Chi-square values for the Phase I (1953-54 to 1960-61) and the Phase II (1960-61 to 1970-71) were prepared and they were shown in the Table VII.

It may be noted that the decreases in the ICGRs of higher size-classes and their significance and the increases in the ICGRs of Lower size-classes and their

Andhra Pradesh					Assam					
I C C R			Chisquare		I C C R			Chi-Square		
53-54	60-61	70-71	Phase I	Phase II	53-54	60-61	70-71	Phase I	Phase II	
1)	3.31	3.36	5.11	0.0008	0.9115	8.79	13.43	13.62	2.4493	0.0027
2)	23.62	34.65	40.41	5.1508*	0.9575	33.26	56.89	53.57	16.7882**	0.0496
3)	52.84	78.78	89.71	12.7344**	1.5164	72.30	100.84	124.52	11.2660**	5.5607*
4)	91.27	130.22	153.38	16.6221**	4.1191*	120.52	209.93	206.98	66.3305**	0.0415
5)	130.00	187.27	219.70	25.2296**	5.6160*	171.20	302.23	297.25	100.2854**	0.0821
6)	183.33	261.80	301.81	33.5872**	6.1146*	240.93	435.94	402.84	157.8421**	2.5132
7)	260.83	371.72	426.28	47.1441**	11.2127**	337.50	571.43	573.33	162.1429**	0.0063
8)	333.66	478.71	568.32	63.0567**	16.7741**	440.63	784.62	774.19	268.5453**	0.1387
9)	407.53	606.90	684.81	97.5349**	10.0016**	1225.17	1333.33	1171.43	9.5485**	19.6588**
10)	565.50	837.23	933.91	130.5697**	11.1642**	(a)	(a)	(a)	(a)	(a)
11)	1432.95	1731.31	1924.49	62.1227**	21.5551**	(a)	(a)	(a)	(a)	(a)
				33.8573**	5.7483				47.6693**	1.9906

* Significant at 95% level
 ** Significant at 99% level

(a) combined in 9th class

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Table- VII: The Inter-Class Concentration Ratios (ICCRs) for the three periods and the Chi-square values for Phase I (1953-54 to 1960-61) and Phase II (1960-61 to 1970-71)- All India and States (ownership holdings).

Size-class in Hectares	All India				
	I C C R			Chi-square	
	53-54	60-61	70-71	Phase I	Phase II
1) 0.002-0.40	4.33	4.32	5.31	0.0000	0.2269
2) 0.41-1.00	26.75	33.43	39.12	1.6681	0.9685
3) 1.001-2.02	57.53	72.26	85.65	3.7715*	2.4812
4) 2.03-3.03	98.03	123.22	145.48	6.4729*	4.0213*
5) 3.04-4.04	138.82	173.50	205.35	8.6638**	5.8468*
6) 4.05-6.07	194.97	242.53	285.13	11.6016**	7.4826**
7) 6.08-8.09	276.88	345.00	409.73	16.7594**	12.1449**
8) 8.10-10.12	355.26	444.44	530.77	22.3866**	16.7691**
9) 10.13-12.14	440.00	549.48	648.65	27.2406**	17.8982**
10) 12.15-20.24	600.47	750.32	891.30	37.3957**	26.4892**
11) 20.25 & above	1414.52	1636.76	1746.67	34.9169**	7.3806**
				11.4625	6.1242

* Significant at 95% level

** Significant at 99% level.

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	Bihar					Gujrat				
	I C C R			Chisquare		I C C R			Chi-Square	
	53-54	60-61	70-71	Phase I	Phase II	53-54	60-61	70-71	Phase I	Phase II
1)	8.52	8.07	9.34	0.0238	0.1999	1.58	1.70	2.31	0.0091	0.2189
2)	47.43	53.82	68.69	0.8669	4.1085*	12.70	20.76	25.55	5.1152*	1.1052
3)	101.29	116.85	148.39	2.3903	8.5132**	27.04	43.67	56.45	10.2277**	3.7401*
4)	173.66	216.58	262.71	10.6077**	9.8254**	46.14	72.31	92.66	14.8433**	5.6933*
5)	247.28	283.52	360.33	5.3111*	20.8090**	64.99	100.36	130.78	19.2497**	9.2206**
6)	345.80	388.13	505.35	5.1817*	35.4019**	92.68	142.99	178.97	27.3101**	9.0535**
7)	485.95	562.10	741.41	11.9330**	57.1999**	129.35	199.53	260.57	38.0768**	18.6733**
8)	623.68	710.45	954.76	12.0720**	84.0135**	164.63	257.73	330.22	52.6490**	20.3888**
9)	791.49	897.44	1178.57	14.1826**	88.0661**	203.58	320.16	400.50	66.7595**	20.1603**
10)	1068.09	1214.29	1570.59	20.0118**	164.5464**	282.08	437.06	572.90	85.1489**	42.2196**
11)	2605.26	2500.00	3357.14	4.2528*	293.8756**	579.90	895.28	964.06	171.5202**	5.2840*
				4.5420	21.3375*				47.0583**	11.8146

* Significant at 95% level
** Significant at 99% level

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	Jammu & Kashmir					Karnataka				
	I C C R			Chisquare		I C C R			Chisquare	
	53-54	60-61	70-71	Phase I	Phase II	53-54	60-61	70-71	Phase I	Phase II
1)	11.82	12.40	15.40	0.0285	0.7258	1.97	2.65	2.45	0.2347	0.0151
2)	45.49	53.56	64.27	1.4316	2.1416	19.29	21.76	29.92	0.3163	3.0600
3)	99.00	109.99	133.37	1.2200	4.9698*	40.09	45.94	63.53	0.8536	6.7350**
4)	168.25	189.33	222.64	2.6411	5.8604*	68.49	77.19	103.96	1.1051	9.2840**
5)	228.51	266.06	317.30	6.1540*	9.8893**	97.21	108.60	144.93	1.3346	12.1535**
6)	321.27	370.77	421.71	7.6268**	6.9986**	136.56	152.48	201.87	1.8559	15.9980**
7)	467.14	580.36	711.11	27.4410**	29.4568**	192.25	215.70	291.02	2.8604	26.3009**
8)	727.34	832.43	837.50	15.1840**	0.0309	248.01	280.24	382.59	4.1884*	37.3805**
9)	(a)	(a)	(a)	(a)	(a)	307.66	347.20	469.77	5.0816*	43.2702**
10)	(a)	(a)	(a)	(a)	(a)	419.26	464.14	635.40	4.8042*	63.1921**
11)	(a)	(a)	(a)	(a)	(a)	996.73	923.66	1116.44	5.3567*	40.2357**
				3.5838	4.4269				2.2098	17.7634

* Significant at 95% level
 ** Significant at 99% level

(a) combined in 8th class

	Kerala			Madhya Pradesh						
	I C C R			Chisquare		I C C R			Chisquare	
	53-54	60-61	70-71	Phase I	Phase II	53-54	60-61	70-71	Phase I	Phase II
1)	21.02	20.38	25.07	0.0195	1.0793	2.69	1.92	2.26	0.2204	0.0602
2)	79.25	84.84	123.18	0.3943	17.3262**	15.61	20.81	22.57	1.7322	0.1489
3)	174.00	189.14	280.51	1.3174	44.1391**	33.14	43.96	48.83	3.5327	0.5395
4)	299.08	328.64	483.91	2.9216	73.3592**	56.07	73.44	80.91	5.3811*	0.7598
5)	411.83	459.31	694.49	5.4740*	120.4190**	78.64	103.05	113.57	7.5769**	1.0732
6)	597.96	661.26	971.25	6.7009**	145.3192**	110.56	145.51	159.95	11.0483**	1.4330
7)	803.57	922.41	1369.57	17.5753**	216.7714**	157.48	207.05	224.04	15.6032**	1.3942
8)	1045.24	1055.17	1940.00	0.0943	741.9886	202.27	264.18	299.31	18.9492**	4.6715*
9)	1442.86	1681.82	2120.00	39.5755**	114.1631**	251.02	324.59	358.06	21.5622**	3.4512*
10)	4103.13	4845.83	3800.00	134.4348**	225.7117**	345.65	442.94	491.29	27.3842**	5.2777*
11)	(a)	(a)	(a)	(a)	(a)	833.74	1036.75	924.47	49.4316**	12.1599**
				10.6592	50.2673**				14.0084	2.1722

* Significant at 95% level
 ** Significant at 99% level

(a) combined in 10th class.

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Maharashtra					Orissa					
I C C R			Chisquare		I C C R			Chisquare		
53-54	60-61	70-71	Phase I	Phase II	53-54	60-61	70-71	Phase I	Phase II	
1)	2.05	1.41	1.92	0.1998	0.1845	6.61	5.43	10.02	0.2107	3.8799*
2)	16.42	19.46	20.59	0.5628	0.0656	38.94	46.76	61.63	1.5704	4.7288*
3)	35.26	40.47	48.42	0.7698	1.5617	88.49	102.62	133.28	2.2563	9.1604**
4)	59.83	68.17	82.09	1.1623	2.8424	149.24	167.71	227.18	2.2859	21.0881**
5)	84.39	97.19	115.93	1.9415	3.6134*	211.65	244.70	321.54	5.1609*	24.1291**
6)	118.55	137.79	159.24	3.1225	3.3392	290.00	344.49	447.08	10.2385**	30.5516**
7)	168.17	194.66	228.83	4.1727*	5.9981*	426.01	482.54	626.39	7.5013**	42.8831**
8)	215.98	250.12	296.22	5.3965*	8.4968**	541.38	612.70	842.55	9.3955**	86.2266**
9)	265.53	305.86	361.68	6.1255*	10.1873**	673.68	767.50	986.96	13.0658**	62.7527**
10)	365.51	422.47	497.25	8.8765**	13.2366**	872.37	1017.46	1365.00	24.1309**	118.7114**
11)	856.32	863.04	965.71	0.0527	12.2140**	1723.26	2051.35	2000.00	62.4648**	1.2854
				<u>2.7452</u>	<u>5.0185</u>				<u>6.6024</u>	<u>17.7542</u>

* Significant at 95% level
 ** Significant at 99% level

(a) combined in 10th class.

	Punjab					Rajasthan				
	I C C R			Chisquare		I C C R			Chisquare	
	53-54	60-61	70-71	Phase I	Phase II	53-54	60-61	70-71	Phase I	Phase II
1)	2.68	2.19	1.70	0.0896	0.1096	2.64	1.42	1.88	0.5638	0.1490
2)	19.29	30.39	39.41	6.3872*	2.6772	11.28	14.29	14.89	0.8032	0.0252
3)	42.35	66.51	86.80	13.7829**	6.1898*	23.79	30.09	33.14	1.6684	0.3092
4)	68.80	113.29	144.95	28.7698**	8.8477**	39.79	49.96	54.73	2.5994	0.4554
5)	98.19	155.00	206.80	32.8687**	17.3112**	56.01	71.99	79.60	4.5592*	0.8044
6)	135.69	221.61	286.27	54.4052**	18.8661**	79.72	98.97	107.62	4.6483*	0.7560
7)	194.48	309.44	405.52	67.9546**	29.8325**	113.18	140.03	153.48	6.3697*	1.2919
8)	248.35	401.26	516.34	94.1472**	33.0046**	144.96	182.05	203.57	9.4900**	2.5439
9)	302.04	500.00	648.04	129.7449**	43.8317**	178.81	220.53	243.91	9.7341**	2.4787
10)	422.71	681.55	890.32	158.4967**	63.9497**	246.47	307.78	337.29	15.2510**	2.8294
11)	1062.82	1543.48	1760.00	217.3783**	30.3735**	591.02	729.33	707.56	31.3319**	0.6498
				59.2888**	17.3958				10.2486	1.0408

* Significant at 95% level
 ** Significant at 99% level

(a) combined in 10th class.

	Tamilnadu					Uttar Pradesh				
	I C C R			Chisquare		I C C R			Chisquare	
	53-54	60-61	70-71	Phase I	Phase II	53-54	60-61	70-71	Phase I	Phase II
1)	6.99	8.58	8.49	0.3617	0.0009	7.09	7.03	9.63	0.0005	0.9616
2)	48.00	71.59	73.29	11.5935**	0.0404	45.05	46.26	58.34	0.0325	3.1545
3)	105.49	148.25	159.18	17.3894**	0.7952	95.32	100.95	126.48	0.3325	6.4565*
4)	176.11	256.65	277.87	36.8332**	1.7545	162.64	173.15	216.64	0.6792	10.9233**
5)	251.73	366.38	385.83	52.2171**	1.0325	229.17	243.52	305.90	0.8986	15.9792**
6)	349.51	491.02	536.78	57.2947**	4.2645*	322.48	339.38	426.30	0.8857	22.2614**
7)	492.65	718.29	782.56	103.3460**	5.7506*	458.18	481.55	609.09	1.1952	33.7794**
8)	658.82	914.55	984.85	99.2651**	5.4038*	588.10	630.43	788.24	3.0617	39.5032**
9)	784.31	1057.14	1178.95	94.9066**	14.0357**	723.08	760.47	975.00	1.9334	60.5193**
10)	1050.67	1637.04	1715.38	327.2481**	3.7489*	965.71	1036.54	1210.71	5.1950*	29.2658**
11)	2479.55	2450.00	2772.73	0.3522	42.5121**	2071.42	2066.67	2433.33	0.0109	65.0513**
				35.8712**	0.508309**				0.6658	11.2506
					1.9027					

* Significant at 95% level

** Significant at 99% level

West Bengal					
	I C C R			Chisquare	
	53-54	60-61	70-71	Phase I	Phase II
1)	9.39	9.32	13.18	0.0005	1.5987
2)	55.44	64.85	87.43	1.5972	7.8621**
3)	117.14	135.12	183.24	2.7598	17.1367**
4)	206.59	228.45	308.39	2.3131	27.9729**
5)	289.34	328.71	438.50	5.3570*	36.6702**
6)	402.01	450.00	607.89	5.7288*	55.3988**
7)	577.12	657.14	880.77	11.0951**	76.1031**
8)	740.00	852.38	1127.27	17.0656**	88.6512**
9)	1197.87	1207.14	1400.00	0.1771	30.8125**
10)	(a)	(a)	(a)	(a)	(a)
11)	(a)	(a)	(a)	(a)	(a)
				2.9718	20.0386*

* Significant at 95% level
 ** Significant at 99% level

(a) combined in 9th class

significance are of importance and should be treated as an indication of positive distribution across the classes.

Inter-Class Concentration Ratio (ICCR) Analysis

All India Changes in ICCRs

Table VII shows the ICCR value for eleven farm size. It revealed that in case of Marginal and Small farmers, the proportion of area owned was less than their share in total holdings. For rest of the farm-size classes, the ICCR was more than 100, indicating that share-in area was more than the percentage share in holdings. Further, as we move from the Lower Semi-medium class to the Upper Large farmers class, the ICCR values go on increasing, revealing a positive relationship between farm-size and ICCR, i. e. the share in the area, in relation to percentage share in holdings goes on increasing, along with the increase in farm size. This is true for all the years. For instance, in 1953-54 the ICCRs varied from 98.03 to 1414.52 in the classes from lower Semi-medium farmers onwards and in 1970-71, it varied between 145.48 to 1746.67 in the same size classes.

Coming to the changes, it was observed that between 1953-54 and 1960-61 the ICCR has increased in all classes except 1st size class (lower Marginal class) and between 1960-61 and 1970-71 it had increased in all the classes. As seen from the Chi-square values and their significance, it could be noted that in both Phase I and Phase II, the increases were significant in the classes starting from lower Semi-medium class onwards (4 to 11 classes). In Phase I, the increase was significant even in Small farmers class (3rd class). Thus, it is clear that in the first two classes (lower and upper Marginal class), the percentage share in area in relation to holdings was not only low, but overtime, it had not shown any improvement.

State-wise Changes in ICCRs

Changes Between 1953-54 and 1960-61

During this period it was observed that in all States, most of the fam-sizes had experienced an increase in ICCRs, except for two fam-size groups. Interestingly these exceptions were at the two ends of the classes, viz. the lower Marginal class (1st size-class) and the Upper large class (11th size-class). In seven States, viz. Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab,

Rajasthan and West Bengal, the ICCR had declined in the Lower Marginal Farmers class (1st class). In two states, viz. Karnataka and Tamil Nadu, the ICCR decreased in the Upper Large farmers (11th class). And in Bihar and Uttar Pradesh, the ICCRs decreased in both 1st and 11th classes. While the decline in the ICCR of Upper Large farmers class was a positive sign, the decline in the Lower Marginal class was a matter of concern.

Further, in the remaining 4 states, the ICCRs increased in all the size classes. These were Andhra Pradesh, Assam, Gujarat and Jammu & Kashmir.

Considering the results of Chi-square and their significance, the following observations could be made.

- i) In Uttar Pradesh only in one class, viz. middle large farmers class (10th size-class) the increase was significant, although the ICCRs had increased in all the classes except 1st and last classes.
- ii) In West Bengal although all the classes except 1st class had experienced an increase, the increases were significant only in the classes between 5th to 8th class (viz. Semi-medium and Medium classes).
- iii) In Jammu & Kashmir, Kerala, Orissa and Rajasthan, the increases were significant in all the classes from

Upper-Semi-medium class onwards (i.e. in 5th to last class), although ICCRs had increased in all classes except in 1st class.

iv) In Bihar, the ICCR has increased in all classes except 1st class, but the increases were significant in 4th to 10th class. The decrease in last class, was also significant.

v) In Maharashtra, the increases were significant in 7th to 10th class, although these were increases in all the classes except 1st class.

vi) In Karnataka, although there had been an increase in ICCRs up to 10th class, the increases were significant in 8th to 10th class. Interestingly in the last class, the decrease in ICCR was also significant.

vii) In Tamil Nadu, the increases were significant except in the 1st class upto 10th class. The decrease in the last class was not significant.

viii) In Andhra Pradesh, Assam, Gujarat, Madhya Pradesh and Punjab, the increases in ICCRs were significant in all classes except 1st and 2nd classes. (In the first 3 States, the ICCRs had increased in all classes and in the other two States, the ICCRs had increased except in 1st class).

Interestingly, only in 5 States, referred to in (vii) and (viii), where the increases were significant in almost all classes, the weighted* Chi-square was also significant. These were Andhra Pradesh, Assam, Gujarat, Punjab and Tamil Nadu. Among these States, except in Assam, the Gini value had increased.

The result of the Chi-square test this shows that in most of the States, the positive changes in the ICCR of all farm-size classes starting from Semi-medium classes (Lower or Upper) to Large farmers classes were found to be significant. Of the four States, which had experienced decline in the ICCR of Upper Large farmers class (11th class), it was only in case of two States, viz. Bihar and Karnataka, the change was significant. In as many as nine States, the ICCR of lower Marginal farmers class (1st class) had declined. Since the decline was quite small, it was found to be insignificant. The increases in ICCR of upper Marginal (2nd class) and Small (3rd class) farmers had become significant in only 5 States, viz. Andhra Pradesh, Assam, Gujarat, Punjab and Tamil

* Weightage obtained by adding the 4 percentages of the holdings and area in each class and dividing by 400, for each class, for each phase.

Nadu. In Madhya Pradesh, the increase in Small farmers class (3rd class) had become significant.

Changes Between 1960-61 and 1970-71

It was seen that at all India level, between 1960-61 and 1970-71, the ICCRs increased for all classes and the increases were significant from the lower Medium farmers class onwards (i.e. 4 to 11 classes). Thus, although there was increase in Marginal and Small farmers classes, the increases (1 to 3 classes), were not significant. Coming to the State-level position, the ICCRs increased in all classes of 7 States. These States were Andhra Pradesh, Bihar, Gujarat, Jammu & Kashmir, Maharashtra, Uttar Pradesh, and West Bengal. The ICCR decreased in the lower Marginal class (1st class) in three States, viz. Karnataka, Punjab and Tamil Nadu, while in other four States, viz. Kerala, Madhya Pradesh, Orissa and Rajasthan, the ICCR had shown decrease in last class. In Assam, the ICCRs had increased upto 3rd class and in 7th class, and in the rest of the classes, it had shown decline.

The test of significance of these changes by Chi-square shows the following results:

- (i) In Rajasthan, the increases in the ICCRs had been insignificant in all the classes.
- (ii) In Bihar, Kerala and West Bengal, the changes in ICCRs had been significant for all classes except 1st class. In the first two States, the ICCRs had increased in all classes, whereas in Kerala there had been a decrease in the last class (combined class). It may be noted that the decrease in the last class of Kerala had been significant. Interestingly in these three States only, the weighted Chi-square also had become significant.
- (iii) In Gujarat, Karnataka, Punjab and Uttar Pradesh, the increases in the ICCRs had been significant in all the classes from Small farmers class onwards (3 to 11 classes). In fact in Karnataka and Punjab the ICCR had decreased in the first class, though the decrease was insignificant.
- (iv) In Andhra Pradesh and Maharashtra, where the ICCRs had increased for all the classes, the increases in ICCRs had been significant for the classes from 4th to

11th class. The only exception had been the 5th class in Maharashtra.

(v) In Orissa, the increases in ICCRs had been significant in all classes from 1st to 10th class. The decrease in the ICCR of last class was insignificant.

(vi) In Tamil Nadu, the increases in the ICCRs had been significant from 6th to 11th class. In this State the ICCR for 1st class had decreased and it, being very small, had become insignificant.

(vii) In Madhya Pradesh, the increases in the ICCRs had been significant in the classes from 7th to 10th class. In the last class the decrease in the ICCR had become significant. It was definitely a positive sign.

(viii) In Jammu & Kashmir although ICCR had increased in all classes, the increase was significant for the classes from 3rd to 7th class. The distributional changes in Jammu & Kashmir had benefited the small and middle Medium farmers classes. This was a favourable sign.

(ix) In Assam, the increase in ICCR in Small farmers class (3rd class) and the decrease in ICCR of combined Large farmers class (last class in this State) was significant.

Thus during the period 1960-61 to 1970-71, the following important changes had occurred.

- (a) In the three States where the Marginal farmers had experienced decrease in ICCR, the decreases were insignificant.
- (b) In only two of the four States, where the ICCR decreased in the last class, the decreases were significant. Those two states were Kerala and Madhya Pradesh.
- (c) Although there was not a significant deterioration in the relative position of Marginal farmers classes (lower and upper) there was no improvement either.
- (d) There was a significant improvement in the position of Semi-medium and Medium farmers classes.

Summary

1. Percentage of Landless Households

At all India level, the percentage of landless households was as high as 23.09 per cent in 1953-54 and it reduced to 11.68 per cent and in 1960-61 further to 9.64 per cent by 1970-71. However, the decline was quite

sharp in the period between 1953-54 and 1960-61. It had declined nearly by half. Coming to the State-wise position, in 1953-54 the lowest and highest percentages were 9.36 per cent for Uttar Pradesh and 41.58 per cent for Assam. In 1960-61, these positions were assumed by Uttar Pradesh (2.78) and Kerala (30.90) respectively. In 1970-71, Jammu & Kashmir (0.96) and Assam (24.99) had such positions respectively. In the period between 1953-54 and 1960-61 the percentages of landless households had decreased considerably in all the States. During 1960-61 and 1970-71, as many as eleven States had shown a decline. However, the fall in the percentages of landless households was not as great as in Period I.

2. Average Size of the Holdings

At all India level, the average size of the holdings gradually declined from 2.53 ha. in 1953-54 to 2.01 ha. in 1960-61 and further to 1.69 ha. in 1970-71. Coming to the State-wise average sizes, interestingly it was found that in all the three periods, Kerala and Rajasthan had assumed the lowest and highest positions

respectively. The lowest and highest sizes of these States were 0.82 and 6.21 ha. in 1953-54, 0.74 and 4.97 ha. in 1960-61; and 0.50 and 4.52 ha. in 1970-71 respectively. In the period between 1953-54 and 1960-61, the average size had decreased in all the States - the decrease was sharp in six States only. And between 1960-61 and 1970-71, it decreased in all States except Assam. However, the decreases were not as sharp as in the period I. In Assam the average size remained almost constant.

3. Concentration Ratios (Gini Coefficient Values)

At all India level, the concentration ratio had assumed Very High level in all the three periods under study. In 1953-54 it was 0.6764 and increased marginally to 0.6801 in 1960-61. But it decreased to 0.6748 in 1970-71. Thus, the inequality in the land holdings had not decreased much overtime, at all India level. Looking at the State-wise pattern it was observed that Jammu & Kashmir had shown the lowest level of inequality in the three periods. Andhra Pradesh had the highest Gini value in 1953-54 and 1960-61, and in

1970-71 the highest level was assumed by Punjab. The lowest and highest values were 0.5067 and 0.7283 in 1953-54; 0.4741 and 0.7437 in 1960-61, and 0.4109 and 0.7407 in 1970-71 respectively. In the period between 1953-54 and 1960-61, the Gini values had increased in nine States and the increase was sharp only in Punjab. In six other States the Gini values decreased and the decreases were comparatively more in four States. In the period II (1960-61 to 1970-71), inequality had decreased in eight States and in five of them, the decreases were sharp. In the remaining seven States the concentration had ratios increased and the increases were more only in three States. Here, an important point to be noted is that in all the periods under study as many as 10 of 11 States had shown Very High and High Concentration levels, covering nearly 70 per cent of the net sown area.

4. Distribution of Area and Holdings

In all the periods, under study, in the same seven States, viz. Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Punjab and Rajasthan, High percentage of owned area (greater than 25 per cent), was accounted for by Large and Medium farmers. Further these

States had Low level area (less than 10 per cent) in Marginal and Small farmers classes. In 1953-54, only Kerala and Jammu & Kashmir had the High level area in Marginal and/Small farmers class. By 1960-61, two other States viz. West Bengal and Assam assumed this level and by 1970-71 another State, Orissa, also joined this group. In 1953-54, there were six States with High level area in Semi-medium and/Medium farmers classes. These States were: Bihar, Orissa, Uttar Pradesh, West Bengal, Assam and Tamil Nadu. In 1970-71 also (including 1960-61) these States continued to be in this category. However, of these States, West Bengal, Orissa and Assam had also shown relatively High level area in the Marginal and/Small farmers class. Thus, these three States had High level area in both the categories. Further, all the 7 States with Medium level area, in Large farmers class in 1953-54 had gradually shifted to Low level area by 1970-71. In all the seven States the concentration of land had decreased in Large farmers class overtime although they remained in the High level area. This was a positive aspect of distributional change in owned area.

As regards the distribution of holdings in all the periods, 11 to 15 States had shown high percentages of

households (more than 25 per cent) in the Marginal farmers class, Medium level in the Small and Semi-medium farmers class; and the Low level holdings in Large farmers class. The important point to be noted is that in almost all the States the percentage of Marginal farmers was increasing from one period to another.

5. Changes in the Distribution of Area and Holdings through Inter Class Concentration Ratio (ICCR) Analysis

During 1953-54 and 1960-61 at all India level the ICCRs increased in all the classes except 1st class. In the first class the ICCR remained constant. The increases in ICCRs were significant from 3rd class onwards. In the period between 1960-61 and 1970-71, although the ICCRs increased in all the classes, the increases were significant only from the class 4th. Thus, during both periods, the ICCR of first three farm size categories (viz. Marginal and Small classes) was not only less than 100, but it had not shown any improvement in the distribution of area vis-a-vis holdings over the periods under study.

Coming to the State-wise position in 1953-54, in seven States the ICCRs increased in all classes except 1st class, (in) two States it increased in all classes except last class, and two other States the ICCRs increased except in first and last class. In the remaining four States the ICCRs increased in all the classes. In three of the last four States the increases in ICCRs were significant from upper Marginal class (2nd class) onwards. In majority of the remaining States, the increases became significant in Semi-medium farmers to Large farmers classes (in between 4 to 11 classes). However, the improvement was heavily biased towards Semi-medium and Medium farmers classes. Further, the decrease in the ICCR of last class (viz. large farm) noticed in respect of the four States, was significant only in two States viz. Bihar and Karnataka. The decrease in the ICCR of 1st class, noticed in 9 States, was not significant in any State.

In the period between 1960-61 to 1970-71, the ICCRs increased in all classes of seven States. In three States ICCR increased in all except 1st class and in four other States, it increased in all except last class. In the remaining State, Assam, the ICCRs increased upto

3rd class and 7th class. The test of significance showed that there was significant improvement in the position of Semi-medium and Medium classes, just as in the period I. In only two of the four States, where the ICCR decreased in the last class, the decrease became significant.

The weighted Chi-square was significant in five States in the period I. They were Andhra Pradesh, Assam, Gujarat, Punjab and Tamil Nadu. In the period II, the weighted Chi-square was significant only in three States viz. Bihar, Kerala, and West Bengal.

The overall impression that one gets from the ICCR analysis is that the Semi-medium and Medium farmers classes improved their relative position overtime. Thus, the decline in the area of Large farmers had benefited the Semi medium and Medium classes, but in the process the Marginal and Small farmers were neglected, because their position either remained constant or in some cases deteriorated over time.

CHAPTER IV

CHAPTER IV

INTER-STATE VARIATIONS AND TEMPORAL CHANGES

IN THE OPERATIONAL HOLDINGS

After having examined the inter-State variations in the distribution of ownership holdings, in this Chapter, we propose to study the distribution and other aspects of Operational holdings in India and States. The main emphasis is placed on the analysis of inter-State pattern and changes in the relevant aspects of Operational holdings for the three points of time, i.e 1953-54, 1960-61 and 1970-71.

The Chapter is divided into five Sections. The first Section deals with inter-State pattern of the percentages of Households operating no land (of Household operational Holdings). The second deals with the average size of Operational Holdings. The third examined the inequality in the distribution of area and holdings through the Gini Coefficient. The fourth deals with the distribution of Operational holdings. The fifth analyses the changes in the distribution of area and holdings between the periods. Except in the first section, all other sections are concerned with Operational Holdings.

4.1 The Percentage of Households Operating No Land and of those owning but not Operating Land, in the Total Households.

The House holds operating no land is discussed in

two aspects, in two subsections. The first sub-section deals with the Total Households operating no land in the Rural areas. In the total households operating no land, there are combined two categories (a) Households owning but not operating land and (b) Households ^{neither} owning nor operating land. In the second sub-section, the households owning but not operating land is taken up (i.e the first category). Though these aspects are not directly related to the Operational holdings but related to Households Operational holdings, here we are interested to know how there are variations between the States in regard to non-dependence on agriculture from the point of view of cultivation (operation) of land.

4.1.1. Percentage of Total Operating No land.

In this sub-section, the inter-State variations and changes are examined in the percentage of Households operating no land. To bring out inter-State variations, the States have been divided into three categories (i) Low Level (< 10%) (ii) Medium Level (10-20%) and (iii) High level (> 20%). The data have been presented in the Table I.

4.1.1.1 All India: Levels and Changes.

At all India Level, the percentage of households operating no land was only 10.87 per cent in 1953-54. It was 26.86 and 27.42 per cent respectively in 1960-61 and 1970-71. The increase between 1953-54 and 1960-61, was

TABLE I : Percentage Holdings operating No land in 1953-54, 1960-61 and 1970-71 in States.

Range of Percentage	1953 - 54	1960 - 61	1970 - 71
	States	States	States
Less than 10%	West Bengal (0.89)		Jammu & Kashmir (6.64)
	Bihar (3.59)		Rajasthan (7.88)
	Tamil Nadu (3.91)	— Nil —	
	Orissa (4.53)		
	Assam (4.99)		
	Uttar Pradesh (5.14)		
	Jammu & Kashmir (7.12)		
10-20 %	Karnataka (12.54)	Jammu & Kashmir (11.09)	Kerala (11.70)
	Rajasthan (13.25)	Rajasthan (11.84)	Madhya Pradesh (16.95)
	Madhya Pradesh (19.10)		
	Maharashtra (19.64)		
Greater than 20%	Kerala (21.33)	Uttar Pradesh (20.76)	Bihar (20.65)
	Gujarat (22.09)	Bihar (21.71)	Uttar Pradesh (24.26)
	Andhra Pradesh (22.92)	Madhya Pradesh (27.65)	Orissa (25.13)
	Punjab (28.97)	Kerala (29.76)	Assam (28.38)
		Karnataka (24.11)	Karnataka (29.77)
		Maharashtra (26.29)	West Bengal (30.95)
		Gujarat (31.74)	Maharashtra (30.97)
		Orissa (32.59)	Gujarat (33.75)
		West Bengal (33.88)	Andhra Pradesh (36.05)
		Assam (36.22)	Tamil Nadu (41.95)
		Andhra Pradesh (37.95)	Punjab (54.25)
		Punjab (39.09)	
		Tamil Nadu (44.91)	

quite high i.e by two and half times. Such a drastic change within a span of seven years casts some doubts on the reliability of data. However, the increase was only marginal between 1960-61 and 1970-71.

4.1.1.2 Inter-State Variations 1953-54.

In 1953-54, there were considerable variations in the percentage of households operating no land. The regional pattern is as follows:

- i) Low Level: There were seven States in this category where the percentage of households operating no land is less than 10 per cent. These States were West Bengal, Bihar, Tamilnadu, Orissa, Assam, Uttar Pradesh and Jammu and Kashmir. In West Bengal the percentage was very low (0.89). In Jammu and Kashmir, it was 7.12 per cent.
- ii) Medium Level: There were four states in this category viz Karnataka, Rajasthan, Madhya Pradesh and Maharashtra. The percentage of households operating no land varied between 12.54 and 19.64 respectively.
- iii) High Level: There were four States in this category where the percentage is more than 20 per cent. The States were Kerala, Gujrat, Andhra Pradesh and Punjab. The percentages varied between 21.53 and 28.97.

The all India level percentage (10.87) was exceeded in all the States in the Medium and High Levels of range (i.e in 8 States).

4.1.1.3 Inter-State Variations 1960-61.

Since the percentage of households operating no land increased drastically at all India, in 1960-61, there were sharp increases in the percentages in many States. As a result many States shifted to High level in 1960-61.

i) Low Level: In this category, there were no states.

ii) Medium Level: There were only two states in middle category, viz Jammu and Kashmir and Rajasthan. In these states, the percentages of households operating no land were 11.09 and 11.84 per cent respectively.

iii) High Level: In this category there were 13 states. These include Uttar Pradesh, Bihar, Madhya Pradesh, Kerala, Karnataka, Maharashtra, Gujarat, Orissa, West Bengal, Assam, Andhra Pradesh, Punjab and Tamilnadu. In the first 6 states, the percentages ranged in 20.76 to 26.29 per cent and in the other 7 states, it ranged in 31.74 to 44.91 per cent.

4.1.1.4 Inter-State Variations 1970-71.

At all India, the increase was quite small in 1970-71 over 1960-61. In this period majority of the States had shown some decreases. As such, two States to the low level range.

i) Low Level: In this category, there were two states: Jammu and Kashmir and Rajasthan with percentages 6.64 and 7.83 respectively.

ii) Medium Level: There were two States in middle category;

These were Kerala and Madhya Pradesh. In these States, the percentages were 11.70 and 16.95 respectively.

iii) High Level: There were eleven States in this category; viz. Bihar, Uttar Pradesh, Orissa, Assam, Karnataka, West Bengal, Maharashtra, Gujrat, Andhra Pradesh, Tamilnadu and Punjab. The percentages of the households operating no land varied between 20.65 and 54.25. In the first 5 states, the percentage ranged in 20-30 per cent and in the other 6 states they were in the range greater than 30 per cent.

The all India level percentage (27.42) was exceeded in 8 states which were in the High Level range (i.e., except the first 3 states in that level).

4.1.1.5 Changes Between 1953-54 and 1960-61 and 1960-61 to 1970-71.

i) Changes in the Period I (1953-54 to 1960-61).

During first period (1953-54 to 1960-61) at all India level, there was drastic increase in the percentage of households operating no land and. This increase was shared by all States except, Rajasthan. In many States the increases were quite sharp. In West Bengal (0.89 - 33.88) and Tamilnadu (3.91 - 44.91) the increases were very high. As a matter of fact, such increases is indicative of the *Structural change in the whole economy of the country.*

ii) Changes Between 1960-61 and 1970-71.

In this period at all India only marginal increase

was noticed in the percentage of households operating in land and the percentages increased in only 5 States viz. Gujarat, Karnataka, Maharashtra, Punjab and Uttar Pradesh. The increases were somewhat sharp in all States except Gujarat. In the remaining 10 States there were decreases. The decreases were more in Assam (36.22 - 28.38) Kerala (23.76 - 11.70) Madhya Pradesh (22.65 - 16.75) and Orissa (32.59 - 25.13).

It may be noted that interestingly in the period between 1953-54 and 1960-61 the percentage of Households operating no land had increased drastically, whereas the percentage of land-less households had decreased rapidly. Between period 1960-61 to 1970-71 both the percentages had shown a decreasing trend in majority States (10 or 11).

4.1.2 Percentage of Households Owning But not Operating Land.

Since NSS reports provides data on number of Households owning land but not operating land, the inter-State analysis is confined to two periods only namely 1960-61 and 1970-71. The details have been shown in the Table II.

4.1.2.1 All India Level and Changes:

At all India Level the percentages of households not operating owned land in 1960-61 and 1970-71 were 17.42 and 20.51 respectively. This indicates the increasing tendency of households owning but not operating land. However the increase was marginal.

TABLE II : Percentage Households owning but not operating land.

Range of Percentage	1960 - 61		1970 - 71	
	States		States	
Less than 10%	Jammu & Kashmir	(5.30)	Kerala	(4.44)
	Kerala	(8.91)	Rajasthan	(5.52)
	Rajasthan	(9.64)	Jammu & Kashmir	(6.07)
10-20 %	Karnataka	(10.51)	Madhya Pradesh	(12.09)
	Maharashtra	(12.41)	Assam	(13.75)
	Assam	(15.27)	Orissa	(17.30)
	Bihar	(15.28)	Bihar	(17.52)
	Madhya Pradesh	(16.66)		
	Gujarat	(18.11)		
	Uttar Pradesh	(18.49)		
Greater than 20%	Tamil Nadu	(23.03)	Karnataka	(20.28)
	West Bengal	(24.21)	Uttar Pradesh	(20.42)
	Orissa	(26.22)	Maharashtra	(21.09)
	Punjab	(30.51)	West Bengal	(23.10)
	Andhra Pradesh	(32.03)	Gujarat	(25.47)
			Tamil Nadu	(27.86)
			Andhra Pradesh	(29.68)
		Punjab	(48.04)	

4.1.2.2 Inter-State Variations 1960-61.

In 1960-61, there were 12 States with more than 10 per cent of households owning but not operating land. Further the percentages varied between 5.30 for Jammu and Kashmir and 32.03 for Andhra Pradesh. The Statewise pattern is as follows:

- i) Low Level: In low category there were three States, viz. Jammu and Kashmir, Kerala and Rajasthan. The percentages varied between 5.30 and 9.64.
- ii) Medium Level: There were seven States in this category, viz. Karnataka, Maharashtra, Assam, Bihar, Madhya Pradesh, Gujarat and Uttar Pradesh. The the percentage households operating varied between 10.51 and 18.49.
- iii) High Level: There were five States in high range category. These were Tamilnadu, West Bengal, Orissa, Punjab, and Andhra Pradesh. The percentage of households operating no land ranged in 23.03 - 32.03 per cent in these States.

The all India level (17.42) was exceeded in seven States.

4.1.2.3 Inter-State Variations 1970-71.

In 1970-71 at all India level, the percentage of household owning but not operating land had shown an increase. Just more than 50 per cent of the States (8) shared the increases in the percentage and as a result

three States had shifted to High level from Medium range.

i) Low Level: There were three States in Low category viz, Kerala Rajasthan and Jammu and Kashmir. The States had ranged between 1.44 and 6.07 per cent.

ii) Medium Level: There were four States in this category. These were Madhya Pradesh, Assam, Orissa and Bihar. Here the percentages varied between 12.09 and 17.52.

iii) High Level: While there were eight states in high category, viz Karnataka, Uttar Pradesh, Maharashtra, West Bengal, Gujrat, Tamilnadu, Andhra Pradesh and Punjab. In all the States, except Punjab, the range was 20.28 - 29.68 per cent. But in Punjab percentage of housed owning and operating no land was very high (48.04). Six States had shown a percentage range above the all India average.

4.1.2.4 Changes Between 1960-61 and 1970-71.

Although data for 1953-54 is not available on this aspect, it could be said that between 1953-54 and 1960-61, there had been an increases in the percentage of households owning but not operating land in as many as 10 States, viz; Andhra Pradesh, Assam, Bihar, Jammu & Kashmir, Madhya Pradesh, Orissa, Punjab, Tamilnadu, Uttar Pradesh and West Bengal. This was possible to say because in these 10 States, the percentage of households owning but not operating land in 1960-61 was more than the percentage of households operating no land (total) in 1953-54.

In the period between 1960-61 and 1970-71, for which data was available the percentages decreased in 7 states, viz. Andhra Pradesh, Assam, Kerala, Madhya Pradesh, Orissa, Rajasthan and West Bengal. The decreases were quite sharp only in Orissa and Kerala. In the remaining 8 States indicate marginal increases. Among those States, which has experienced considerable increase were Gujrat, Karnataka, Maharashtra, Punjab and Tamilnadu.

4.2 Average Size of the Operational Holdings.

In this section, we examine the State-wise variations in the average size of operational holdings. To bring out inter-State variations the States have been divided into three categories: (i) Low Level (< 1.5ha), (ii) Medium Level (1.5 - 3.0 ha) and (iii) High Level (> 3.0 ha). The detailed data has been presented in the Table III.

4.2.1 All India Sizes and Changes.

At all India level the average size of Operational holdings in 1953-54 was 3.05 ha. It had reduced to 2.63 ha in 1960-61 and further to 2.20 ha in 1970-71. Thus there had been a gradual decline in the average size of operational holdings in India.

4.2.2 Inter-State Variations 1953-54.

In 1953-54, there were 2, 6 and 7 States in Low, Medium and High Level range respectively indicating that the number of States in High level range was comparatively high. The state-wise pattern is as follows:

TABLE III : Average Size of Operational Holdings, 1953-54, 1960-61 and 1970-71 in States.

Range of Size	1953-54		1960-61		1970-71	
	States		States		States	
Less than 1.5 Ha.	Kerala	(0.74)	Kerala	(0.75)	Kerala	(0.51)
	West Bengal	(1.45)	Jammu & Kashmir	(1.43)	West Bengal	(1.12)
			Assam	(1.46)	Jammu & Kashmir	(1.21)
			Tamil Nadu	(1.49)	Bihar	(1.25)
					Assam	(1.28)
					Tamilnadu	(1.33)
					Orissa	(1.38)
1.5-3.0 Ha.	Jammu & Kashmir	(1.61)	Bihar	(1.53)	Uttar Pradesh	(1.55)
	Bihar	(1.68)	West Bengal	(1.56)	Andhra Pradesh	(2.30)
	Tamil Nadu	(1.68)	Uttar Pradesh	(1.80)		
	Uttar Pradesh	(1.96)	Orissa	(1.98)		
	Orissa	(2.06)	Andhra Pradesh	(2.87)		
	Assam	(2.19)				
Greater than 3.00 Ha.	Andhra Pradesh	(3.57)	Punjab	(3.85)	Karnataka	(3.19)
	Karnataka	(4.32)	Madhya Pradesh	(3.99)	Madhya Pradesh	(3.47)
	Punjab	(4.73)	Karnataka	(4.11)	Gujarat	(3.67)
	Madhya Pradesh	(4.94)	Gujarat	(4.49)	Maharashtra	(3.64)
	Maharashtra	(5.04)	Maharashtra	(4.65)	Punjab	(3.96)
	Gujarat	(6.14)	Rajasthan	(5.55)	Rajasthan	(4.17)
	Rajasthan	(6.86)				

i) Low Level: There were 2 States in this category: Kerala and West Bengal. Their sizes were 0.74 and 1.45 ha respectively.

ii) Medium Level: There were six States in this category. These were Jammu and Kashmir, Bihar, Tamilnadu, Uttar Pradesh, Orissa and Assam. The average size varied between 1.61 and 2.19 ha. Bihar and Tamilnadu had the same average size (1.68 ha).

iii) High Level: In high size category, there were seven States: namely Andhra Pradesh, Karnataka, Punjab, Madhya Pradesh, Maharashtra, Gujrat and Rajasthan. The average size varied between 3.57 and 6.86 ha.

4.2.3 Inter-State Variations 1960-61.

In 1960-61, at all India the average size had declined. It had ^{lead} to rise in the number of States in Low or Medium range. The State-wise pattern is as follows:

i) Low Level: In low category, there were four States viz. Kerala, Jammu and Kashmir, Assam and Tamilnadu. The sizes varied between 0.75 and 1.49 ha. Except Kerala, the other States had the sizes nearer to 1.5 ha.

ii) Medium Level: There were five States in this category, viz; Bihar, West Bengal, Uttar Pradesh, Orissa and Andhra Pradesh. Here, the first 4 states had the sizes less than 2 ha and only Andhra Pradesh had somewhat higher size (2.87 ha.) The lowest size in this group was in Bihar (1.53 ha).

iii) High Level: There were six States in high size category, viz Punjab, Madhya Pradesh, Karnataka, Gujrat, Maharashtra and Rajasthan. The the sizes varied between 3.85 and 5.55 ha.

4.2.4 Inter-State Variations 1970-71

In 1970-71, there was a further shift in the states towards Low category as it is clear from the regional pattern discussed below.

i) Low Level: There were seven States in low category viz. Kerala, West Bengal, Jammu and Kashmir, Bihar, Assam, Tamilnadu and Orissa. Kerala had very small farm size. Size (0.51 ha) and all other states ranged in 1.12 - 1.38 ha.

ii) Medium Level: There were two States in this category, viz Uttar Pradesh and Andhra Pradesh. Uttar Pradesh had the size (1.55 ha) almost equal to the least bound of the level and Andhra Pradesh had the size (2.30 ha) at the middle of the interval of the level.

iii) High Level: There were six States, in high category, viz, Karnataka, Madhya Pradesh, Gujrat, Maharashtra, Punjab and Rajasthan. These were the same States as in 1960-61.

4.2.5 Changes Between 1953-54 and 1960 and 1960-61 to 1970-71.

The average size of operational holdings had shown a continuous decline between 1953-54 and 1970-71. It has decreased in all States except Kerala and West Bengal in the period between 1953-54 and 1960-61. The decreases

were sharp in Andhra Pradesh (3.57 - 2.87 ha) Gujrat (6.14 - 4.49 ha) Madhya Pradesh (4.94 - 3.99 ha), Punjab (4.73 - 3.85 ha) and Rajasthan (6.86 - 5.55 ha). The increase in Kerala (0.74 - 0.75 ha) was negligible and somewhat more in West Bengal (1.45 - 1.56).

In the period between 1960-61 and 1970-71, the average size in the holdings decreased in all States except Punjab. The decreases were somewhat sharp in Andhra Pradesh (2.87 - 2.30 ha) Gujrat (4.49 - 3.67 ha) Karnataka (4.11 - 3.19 ha), Madhya Pradesh (3.99 - 3.47 ha), Maharashtra (4.65 - 3.84 ha) and Rajasthan (5.55 - 4.17). The increase in the average size of Punjab^e (3.85 - 3.96 ha), was not that high.

In all the three periods, Kerala and Rajasthan had the lowest and highest sizes respectively. Further in the same 7 States, the average size was more than the average size of all India.

4.3 Inequality in the Distribution of Operational Holdings.

In this section, the purpose is to study the inter-state variations in the Distribution of Operational Holdings. The inequality in operated area in relation to holdings has been measured with the help of Gini Coefficient. As was made clear in the previous chapter (3.3) the Gini Coefficient can be conveniently used for cross-

^e Even this may be due to the changes in boundaries of the State by 1970-71.

sectional comparison and to note the temporal change.

In order to bring out inter-State variations, the States have been divided into 5 categories, just as in case of ownership holdings, depending on the Gini Coefficient values. The categories are as follows:

- i) Very Low Concentration Level: Less than 0.50.
- ii) Low Concentration Level: 0.50 - 0.55.
- iii) Moderate Concentration Level: 0.55 - 0.60.
- iv) High Concentration Level: 0.60 - 0.65.
- v) Very High Concentration Level: More than 0.65.

The State-wise details of Gini values in these ranges have been presented in the Table IV.

4.3.1 All India Levels and Changes.

The Gini-coefficient at all India level in 1953-54 was 0.6213. Its values in 1960-61 and 1970-71 were 0.5832 and 0.5879 respectively. In the Phase I (1953-54 to 1960-61) the inequality has decreased but in Phase II (1960-61 to 1970-71) it has remained almost the same. In all the years Gini values were less than those of Ownership Holdings, indicating that the inequality in operational holdings was less than ownership holdings.

4.3.2 Inter-State Variations 1953-54.

In 1953-54, inter-State pattern revealed considerable variations in the concentration ratios. The Gini

TABLE IV : Gini Coefficient Values of Operational Holdings 1953-54, 1960-61 and 1970-71 in States.

Range of the Gini Value	1953-54		1960-61		1970-71	
	States		States		States	
Less than 0.50	Jammu & Kashmir (0.4236)		Assam (0.3811)		Jammu & Kashmir (0.3986)	
	Assam (0.4586)		Jammu & Kashmir (0.4174)		Assam (0.4155)	
			West Bengal (0.4626)		Punjab (0.4417)	
			Tamil Nadu (0.4955)		West Bengal (0.4819)	
			Punjab (0.4980)		Uttar Pradesh (0.4951)	
				Orissa (0.4984)		
0.50-0.55	Punjab (0.5162)		Uttar Pradesh (0.5067)		Madhya Pradesh (0.5128)	
	Uttar Pradesh (0.5220)		Orissa (0.5140)		Tamil Nadu (0.5149)	
	Gujarat (0.5441)		Gujarat (0.5177)		Karnataka (0.5235)	
			Madhya Pradesh (0.5198)		Maharashtra (0.5346)	
			Karnataka (0.5275)		Gujarat (0.5369)	
0.55-0.60	Madhya Pradesh (0.5569)		Maharashtra (0.5550)		Bihar (0.5503)	
	West Bengal (0.5614)		Rajasthan (0.5565)			
	Bihar (0.5705)		Bihar (0.5586)			
	Rajasthan (0.5739)					
	Orissa (0.5786)					
	Karnataka (0.5799)					
	Maharashtra (0.5833)					
Tamil Nadu (0.5976)						
0.60-0.65	Kerala (0.6228)		Kerala (0.6105)		Andhra Pradesh (0.6028)	
			Andhra Pradesh (0.6157)		Kerala (0.6069)	
					Rajasthan (0.6237)	
Greater than 0.65	Andhra Pradesh (0.6524)		Nil		Nil	

coefficient values varied between 0.4236 for Jammu and Kashmir to 0.6524 for Andhra Pradesh. Interestingly little more than 50 per cent of the States were in the moderate Concentration level. The State wise as follows:

i) Very Low Concentration Level: There were two States in this category viz Jammu and Kashmir and Assam. Their Gini values were 0.4236 and 0.4536 respectively.

ii) Low Concentration Level:

There were three States in low category. These were Punjab, Uttar Pradesh and Gujrat. The Gini values varied between 0.5162 and 0.5441.

iii) Medium Concentration Level: In medium range there were eight States. These were Madhya Pradesh, West Bengal, Bihar, Rajasthan, Orissa, Karnataka, Haharashtra and Tamilnadu. The Gini values varied between 0.5569 and 0.5976.

iv) High Concentration Level: There was only one state in High Concentration range. It was Kerala, with G value of 0.6228, lying at the middle of the least and Upper bounds of this level.

v) Very High Concentration Level: There was only one State of Andhra Pradesh with highest Gini value 0.6524, almost lying at the least bound of this level.

4.3.3 Inter-State Variations 1960-61.

In 1960-61, the concentration ratio at all India

had decreased. Decrease at all India level was shared by almost all the States. Gini values varied between 0.3811 for Assam to 0.6157 for Andhra Pradesh. Nearly two-thirds of the States were confined only to Low and Very Low levels of concentration.

i) Very Low Concentration Level: There were five States in this category viz. Assam, Jammu and Kashmir, West Bengal, Tamilnadu and Punjab. Assam and Jammu and Kashmir had the lowest values, 0.3811 and 0.4174 respectively. The last two States had the values nearer to the upper bound of this level.

ii) Low Concentration Level: There were five States in lower category viz Uttar Pradesh, Orissa, Gujrat, Madhya Pradesh, and Karnataka. The Gini values varied between 0.5067 and 0.5275.

iii) Medium Concentration Level: In medium range there were three States only. They were Maharashtra, Rajasthan and Bihar. The Gini value did not vary much between these States, it being 0.5550 to 0.5586.

iv) High Concentration Level: While there were only two States in High category viz Kerala and Andhra Pradesh. Their Gini values were 0.6105 and 0.6157.

v) Very High Concentration Level: No State had shown very high concentration.

4.3.4 Inter-State Variations 1970-71.

Coming to the last period in 1970-71, at all India

level, the Gini value had increased very marginally. As a result, the inequalities had increased in five states (one-third of the States) and in the rest of the States, it had decreased. As many as eleven States were confined to low and very low level of concentration. The State-wise pattern is as follows:

i) Very Low Concentration Level: There were six States in very low category viz Jammu and Kashmir, Assam, Punjab, West Bengal, Uttar Pradesh and Orissa. The Gini values varied between 0.3906 and 0.4984.

ii) Low Concentration Level: Five States had shown low level of concentration. These were Madhya Pradesh, Tamilnadu, Karnataka, Maharashtra and Gujrat. The Gini values varied between 0.5128 and 0.5369.

iii) Medium Concentration Level: There was only one State, namely Bihar, with Gini value of 0.5503. This was at the lower bound of medium level.

iv) High Concentration Level: There were three States in this category viz Andhra Pradesh, Kerala and Rajasthan. The Gini values varied between 0.6028 and 0.6237.

v) Very High Concentration Level: However there was no State in very high category.

4.5.5 Changes Between 1953-54 and 1960-61 and 1960-61 to 1970-71.

Coming to the changes it was observed that between 1953-54 and 1960-61 the inequalities (G values) had decreased in all States. The decrease was very sharp in

Assam (0.4586 - 0.3811), Tamilnadu (0.5976 - 0.4955) and West Bengal (0.5614 - 0.4626) and moderate in Andhra Pradesh, Karnataka, Madhya Pradesh and Orissa.

In the period between 1960-61 and 1971 G values have increased in 5 States of Assam, Gujrat, Rajasthan, Tamilnadu and West Bengal. The increase in the Gini value was more in Rajasthan (0.5565 - 0.6237). In the remaining 10 States, there was a overall decline in inequalities of land holding. The decrease was sharp in Punjab (0.4980 - 0.4417).

In the period between 1953-54 and 1970-71, the important observations that could be made are as follows:

- a) In 1960-61 and 1970-71, there were 10-11 States in the very low and low concentration levels, whereas only 5 states had shown low concentration in 1953-54.
- b) In 1953-54; one state, viz. Andhra Pradesh had Very high concentration in land holdings while in 1960-61 and 1970-71, there was none.
- c) The inequalities in land holdings had continuously decreased in 10 states in both the periods. These States were Andhra Pradesh, Bihar, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab and Uttar Pradesh.
- d) Jammu & Kashmir had the lowest inequality in 1953-54 and 1970-71 and while Assam had this position in 1960-61. Andhra Pradesh had the highest inequality in 1953-54 and 1960-61 and Rajasthan had this position in 1970-71.

4.4 Distribution of Area and Holdings - By Farm-size.

After having examined the variations in the overall inequality in Operational holdings, in this Section we propose to study the inter-state variations in the percentages of area operated and the number of holdings by farm-size. In order to bring out the variations, same method as used in the case of ownership holdings was applied. The inter-state differences were analysed for five broad size classes. Subsequently different States were arranged into three groups depending on the domination of Small, Medium and Large farmers in operated area and holdings. In this analysis, the purpose was to identify the inter-State variations in the pattern of domination of these classes in operated area and holdings. These typologies which are used in the analysis are as follows:

i) States where Large and /Medium farmers had High level operated area/holdings (more than 25 per cent of total area/holdings).

ii) States where Marginal and/Small farmers had High level operated area/holdings (more than 25 per cent total area or holdings) and

iii) States where Semi-medium and /Medium farmers had High level operated area/holdings (more than 25 per cent area or holdings.)

In this classification, States with a higher percentage of area/holdings in Large and Medium class would

have low percentage of area/holdings either in Marginal and Small class or Semi-medium and Medium class. Similarly states with high percentage of area/holdings in Marginal and Small class would have low percentage of area/holdings in Large and Medium class. And in some cases, the States may show different levels in other classes.

4.4.1 The Distribution of Area By Farm-size.

4.4.1.1 All India.

The distribution of area for the three periods is shown in the following Table.

Percentage Distribution of Operational Area at all India

Year	Marginal	Small	Semi-medium	Medium	Large
1953-54	5.43	10.01	18.62	29.32	36.62
1960-61	6.86	12.32	20.70	31.17	28.95
1970-71	9.21	14.80	22.52	30.49	22.52

In 1953-54 and 1970-71, at all India level, Marginal farmers owned a Low level area which was less than 10 per cent, while Large and Medium farmers had high level area which was 25 per cent and above of the total area. However, in 1970-71, some changes had occurred. There was general decline in the percentage area of Large farmers, and as a result there was a general increase in the percentage of area in Marginal, Small and Semi-medium classes.

The area under Medium farm group had almost remained constant. However overtime, the area operated by Marginal, Small, Semi-medium group had gradually increased, and it was mainly at the cost of Large farmers.

4.4.1.2 Inter-State Variations 1953-54.

Table V gives the details of the percentages of area in the five broad classes in the three ranges, viz(a) Less than 10 per cent (b) Between 10 to 25 per cent, and (c) More than 25 per cent, while Table VI shows the relative position of Small, Medium and Large farm classes.

1) The Table VI revealed that in as many as seven States the percentage of area operated by Large and Medium farms was High (more than 25 per cent). With the result in these 7 States the proportion of area operated by Small and Marginal farmers was Low (less than 10 per cent). These seven States were Punjab, Karnataka, Madhya Pradesh, Andhra Pradesh, Maharashtra, Gujrat and Rajasthan. All these States came from Western Central and Southern India.

ii) In only two States, namely, Kerala and Jammu & Kashmir the proportion of area operated by Marginal or Small farmers was High (more than 25 per cent). In Kerala the High percentage was assumed by Marginal farmers class while in Jammu & Kashmir it was shared by Small farmers class. Interestingly, Jammu & Kashmir had also shown a relatively High level of area in Semi-Medium class.

TABLE V : Percentage of Area Operated in Five Broad Classes, in Low, Medium and Higher Ranges 1953-54, 1960-61 and 1970-71 - States.

Percentage Range of Area Operated	1	9	5	3	-	5	4	Large
	Marginal	Small			Saml-Medium		Medium	
Less than 10% (Low)	RJS (1.24)	RJS (3.21)			GR (9.07)			J&K (0.00)
	GR (1.61)	GR (3.44)			RJS (9.90)			WB (6.54)
	PNJ (1.64)	MP (4.32)						KRL (8.74)
	MP (1.75)	MHR (4.71)						
	MHR (2.20)	PNJ (4.72)						
	KRN (2.80)	KRN (6.42)						
	AP (9.76)	AP (7.34)						
	AS (5.95)							
10-25 % (Medium)	ORS (8.71)							
	UP (10.81)	ORS (17.02)	MHR (13.08)		KRL (20.45)		AS (11.17)	
	BH (11.84)	TN (18.19)	MP (14.73)		J&K (21.63)		BH (11.52)	
	TN (12.49)	KRL (16.70)	PNJ (15.28)		TN (23.51)		UP (13.0)	
	WB (13.81)	UP (19.37)	AP (15.51)		TN		TN (17.75)	
	J&K (14.45)	BH (19.74)	KRN (16.63)				ORS (20.10)	
		WB (22.56)	KRL (17.77)					
		AS (23.9)						
Greater than 25% (High)	KRL (34.39)	J&K (27.90)	ORS (25.56)		WB (25.28)		PNJ (38.11)	
			BH (27.73)		AS (25.46)		MP (45.07)	
			TN (28.06)		AP (25.61)		AP (46.78)	
			UP (28.63)		RJS (26.22)		MHR (49.39)	
			WB (31.81)		UP (28.18)		GR (55.79)	
			AS (33.50)		ORS (28.61)		RJS (59.43)	
			J&K (36.02)		BH (29.17)			
					GR (30.07)			
					KRN (30.48)			
					MHR (30.62)			
					MP (34.13)			
				PNJ (40.25)				

Percentage Range of Area Operated	1960				Large
	Marginal	Small	Semi- Medium	Medium	
Less than 10 % (Low)	RJS (1.66)	RJS (4.62)			AS (0.54)
	GR (2.40)	GR (5.01)			JBK (1.71)
	PNJ (2.48)	PNJ (5.08)			WB (2.77)
	MHR (2.55)	MHR (5.61)			TN (6.71)
	KRN (2.61)	KRN (6.17)			KRL (7.61)
	MP (2.90)	MP (7.12)			
	AP (6.76)	AP (9.31)			
	ORS (9.40)				
10-25 % (Medium)	UP (11.27)	ORS (20.63)	RJS (12.25)	AS (12.78)	UP (11.10)
	AS (13.70)	UP (20.94)	MHR (12.88)	KRL (17.08)	BH (11.26)
	WB (13.90)	BH (21.53)	GR (15.10)	JBK (17.55)	ORS (14.72)
	BR (14.86)	KRL (22.96)	AP (17.83)	TN (23.27)	
	TN (17.22)	TN (23.08)	PNJ (18.34)	WB (23.30)	
	JBK (18.55)		MP (18.46)		
			KRN (21.24)		
			KRL (21.45)		
Greater than 25% (High)	KRL (30.90)	WB (27.92)	BH (26.34)	BH (26.0)	PNJ (31.05)
		JBK (29.0)	ORS (28.11)	ORS (27.14)	MP (32.96)
		AS (37.03)	UP (28.22)	UP (28.47)	AP (35.50)
			TN (29.22)	RJS (29.07)	KRN (37.42)
			WB (32.11)	AP (30.60)	GR (37.42)
			JBK (33.12)	KRN (32.56)	MHR (44.12)
			AS (35.94)	MHR (34.84)	RJS (52.40)
				GR (35.88)	
				MP (38.56)	
				PNJ (43.05)	

Percentage Range of Area Operated	Marginal	Small	Semi-Medium	Medium	Large
Less than 10 %	PNJ (1.95)	RJS (5.79)		J&K (9.59)	J&K (0.00)
	RJS (2.01)	PNJ (6.84)			WB (0.64)
	MHR (3.06)	MHR (8.38)			AS (0.72)
	MP (3.42)	GR (8.55)			KR (2.86)
	GR (3.90)	MP (8.86)			ORS (5.46)
	KRN (5.10)				BH (5.71)
	AP (9.28)				UP (5.97)
					TN (6.30)
10-20 %	UP (15.64)	KRN (10.69)	RJS (14.19)	AS (12.20)	PNJ (21.99)
	BH (18.14)	AP (11.74)	GR (17.41)	KRL (12.26)	
	ORS (18.60)	BH (22.73)	MHR (17.59)	WB (14.58)	
	AS (21.64)	KRL (24.75)	KRL (20.08)	BH (21.01)	
	TN (21.93)		MP (21.15)	ORS (21.56)	
	WB (24.80)		AP (21.91)	TN (21.72)	
	J&K (24.90)		PNJ (22.25)	UP (23.33)	
		KRN (22.97)			
Greater than 20%	KRL (40.05)	UP (25.30)	ORS (27.06)	AP (31.32)	AP (25.75)
		BH (26.22)	TN (27.32)	RJS (33.23)	KRN (26.95)
		ORS (27.32)	J&K (28.08)	KRN (34.29)	MP (28.58)
		WB (28.92)	BH (28.92)	MHR (35.29)	GR (34.19)
		AS (34.90)	UP (29.76)	GR (35.95)	MHR (35.68)
		J&K (37.43)	AS (30.54)	MP (37.99)	RJS (44.78)
			WB (31.06)	PNJ (46.97)	

Abbreviations Used.

AP = Andhra Pradesh
 GR = Gujarat
 KRL = Kerala
 ORS = Orissa
 RJS = Rajasthan
 WB = West Bengal

AS = Assam
 J&K = Jammu & Kashmir
 MP = Madhya Pradesh
 PNJ = Punjab (including Haryana)
 TN = Tamil Nadu
 BH = Bihar
 KRN = Karnataka
 MHR = Maharashtra
 UP = Uttar Pradesh

TABLE VI : Classification of States into three Groups (Typologies) depending on the percentage of Area Operated - 1953-54, 1960-61 and 1970-71.

Group Typologies	1953 - 54	1960 - 61	1970 - 71
i) Large and/ Medium farmers operating High share of Area (More than 25 Percent)	Rajasthan, Gujarat, Punjab, Madhya Pradesh Maharashtra, Karnataka and Andhra Pradesh	Rajasthan, Gujarat, Punjab, Madhya Pradesh, Maharashtra, Karnataka and Andhra Pradesh	Rajasthan, Gujarat, Punjab, Madhya Pradesh, Maharashtra, Karnataka and Andhra Pradesh
ii) Marginal and/ Small farmers operating High Share of Area	Kerala and Jammu & Kashmir	Kerala, Jammu & Kashmir, Assam and West Bengal	Kerala, Jammu & Kashmir, Assam, West Bengal, Bihar, Orissa and Uttar Pradesh
iii) Semi-medium and/ Medium farmers operating High Share of Area	Orissa, Bihar, Tamil Nadu, Uttar Pradesh, West Bengal and Assam	Bihar, Orissa, Uttar Pradesh and Tamil Nadu	Tamil Nadu

iii) There were six States in the pattern where the percentage of area operated by Semi-medium and/Medium classes was High (more than 25 per cent). These States were Bihar, Orissa, Tamilnadu, Uttar Pradesh, West Bengal and Assam. Except Tamilnadu in all other States there had been High share in area in Semi-medium and Medium farmers classes. Tamilnadu had High level area only in Semi-medium farmers class.

Thus in 1953-54, in most of the States, High percentage of area was shared by Large and/Medium farmers classes followed by Semi-medium and/Medium farmers classes. In only two States, viz Jammu & Kashmir and Kerala, High percentage of area was operated by small or Marginal farmers. However in Jammu and Kashmir had shown a fair distribution of operational area among Small and/Marginal farmers and Semi-medium and/Medium farmers. It may be pointed out that these two States had shown a similar pattern in case of owned area in the ownership Holdings, also.

4.4.1.3 Inter-State Variations 1960-61.

In 1960-61, as it would be clear from the following discussion, there was no much change in the inter-State variations.

1) The same seven States, viz. Punjab, Karnataka, Madhya Pradesh, Andhra Pradesh, Maharashtra, Gujrat and Rajasthan, had High percentage ^{Share in} area was operated by

Large and Medium farmers. In all these States, there was Medium level of area (between 10 to 25 per cent) in the Semi-medium farmers class. Gujrat and Rajasthan which had a Low percentage of area in Semi-medium class in 1953-54, had shifted to Medium level area in 1960-61.

(i) In the second typology, where Small and Marginal farmers operated High level area, the number of States had increased from 2 in 1953-54 to 4 in 1960-61. In addition to Kerala and Jammu & Kashmir, West Bengal and Assam joined this category. In Kerala, High percentages of area was found in Marginal class while in other States, the percentage of area operated in Small class was high. Further the last three States had High level area in Semi-medium farmers class also.

(ii) In the third typology states like Bihar, Orissa, Uttar Pradesh and Tamilnadu had shown a high percentage of area being operated by Semi-medium and Medium farmers. In the first three States, High level area was found in both Semi-medium and Medium classes, while in Tamilnadu, it was confined to Semi-medium class only. The number of States in this typology had reduced to four from 6 in 1953-54.

It may be noted that in 1960-61, there were 3 States which would as a matter of fact, fall in the second and third typologies. The States were Jammu & Kashmir, West

Bengal and Assam. This happened because of an intersection of two sets, indicating that although in these Semi-medium States Marginal/Small class operating High percentage of area, the Semi-medium and Medium class had also a substantial share in operated area.

4.4.1.4 Inter-State Variations 1970-71.

In 1970-71 also, the State-wise pattern had not deviated much from that of 1960-61.

i) In the first typology, wherein the Large and Medium farmers hold High share of operated area, it was found that the same seven States continued to bear the domination of Large and Medium farmers. However, Punjab had changed its position in large farmers class from High Level percentage to Medium percentage (i.e more than 25 per cent level to 10-25 per cent level).

ii) In the second typology, wherein the Small and Marginal farmers accounted for High level of operated area, the number of States increased from 4 in 1960-61 to 7 in 1970-71. These were Kerala, Bihar, Orissa, West Bengal, Assam, and Jammu & Kashmir. In Kerala Marginal farmers held the major share of area, while in rest of the State, small farmers accounted for the major share of area. Except Kerala, the other States had shown a relatively higher share in area in Semi-medium farmers class also.

iii) Lastly, Tamilnadu was the only State, where the percentage of area operated by Semi-medium and Medium

farmers class was High. It had a Low level of area in Large farmers class and in the remaining classes it held a Medium level of area.

To sum up the following points may be noted regarding the distribution of operational area among different States:

a) A group of seven States had shown High percentage of operated area in Large and Medium farmers classes in all the periods under study. With the exception of Gujrat and Rajasthan in 1953-54 these States had Medium level area (10 to 25 per cent) in Semi-medium class in all the periods. In 1953-54 these two States had Low level area (less than 10 per cent) in Semi-medium class.

b) All the seven States referred to in (a) had Low level area in both Marginal and Small farmers classes. The only exception ^{being} Karnataka and Andhra Pradesh because they had Medium level of area in Small farmers class in 1970-71.

c) The five States which had a Medium percentage of area in Large farmers class in 1953-54 had gradually shifted to Low level area by 1970-71.

d) The large farmers had experienced a decline in area share in the States of their dominance, while the Medium farmers had improved their position overtime.

e) The Seven States where the percentage of area operated was High in the Semi-medium farmer class, had

remained in the same position in all the three periods under study.

4.4.2 The Distribution of Holdings By Farm-Size.

After having examined the inter-State Variations in the percentages of area, we now examined the variations in the percentages of holdings by farm-size classes. In analysing the variations by farm-size, the same methodology as used for the area, was also used here. The variations in the distribution of holdings for all India and States is discussed below.

4.4.2.2 All India Distribution of Holdings.

The distribution of holdings at all India level for the three periods is as follows:

Year	% Distribution of Holdings.				
	Marginal	Small	Semi Medium	Medium	Large
1953-54	39.14	20.86	19.73	14.40	5.87
1960-61	39.07	22.62	19.80	13.99	4.52
1970-71	45.77	22.38	17.66	11.11	3.08

The Statement reveals that in all the periods the percentage of operational holdings in Marginal farmers class was High (more than 25 per cent) while the percentage was Low (less than 10 per cent) in large farmers class. In the remaining three intermediate classes, there was a

Medium percentage of operational holdings (between 10 to 25 per cent). It may be noted that the percentage of holding in Marginal/Small class farmers had increased between 1953-54 and 1970-71. The increase was quite large for marginal farmer while it was marginal in case ^{of} small farmers. Further there was a decreasing tendency in the percentages of holdings in Large and Medium farmers classes overtime. Semi-medium class had almost remained same between the periods.

44.2.2 Inter-State Variations.

The Table VII gives the classification of the States in three groups - depending on the percentage of holdings in five farm-size classes.

i) The Table shows that in 1953-54, in two thirds of the States (10 States), the percentage of holdings in Marginal farmers class was high (more than 25 per cent) and it was Low (less than 10 per cent) in Large farmers class in the same 10 States. In Small and Semi-medium farmers classes, in almost all the States (11 to 15 States), the percentage of holdings was in Medium range (10 to 25 per cent). In Medium farmers class, however, the pattern varied between the States. Seven States had Low level of holdings four States had Medium level and the remaining four States had High level of holdings.

ii) In 1960-61, the pattern remained more or less the same as in 1953-54.

TABIE VII : Percentage Number of Operational Holdings in Five Broad Classes in Low, Medium and High Ranges, 1953-54, 1960-61 and 1970-71 - States.

Percentage Range of Number of Holdings	9 5 3 = 5 4				
	Marginal	Small	Semi-Medium	Medium	Large
Less than 10% (Low)		KRL(9.77)	KRL(4.71)	KRL(2.39) J&K(6.16) WB(6.24) TN(6.61) BH(8.36) UP(9.24) ORS(9.91)	J&K(0.00) KRL(0.45) WB(0.65) AS(0.94) BH(1.23) TN(1.62) UP(1.69) ORS(2.62) AP(8.36) KRN(9.99)
10-25% (Medium)	RJS(15.61) GR(19.36) PNJ(20.78) MP(21.99) MHR(24.65)	PNJ(14.30) MHR(14.44) MP(14.45) RJS(15.06) MHR(16.17) AP(18.32) KRN(19.22) TN(20.96) WB(22.38) BH(22.76) ORS(23.64)	WB(16.34) BH(16.47) TN(16.89) GR(18.67) ORS(18.86) AP(19.16) UP(19.97) J&K(20.50) MHR(22.14) RJS(22.68) PNJ(23.63) KRN(24.54) MP(24.73)	AS(10.04) AP(14.33) KRN(20.87) MHR(24.14)	PNJ(10.98) MP(12.07) MHR(12.90) RJS(18.16) GR(19.18)
Greater than 25% (High)	KRN(25.38) AS(28.16) AP(39.83) J&K(42.22) UP(43.13) ORS(44.97) BH(51.18) TN(50.92) WB(54.39) KRL(82.68)	UP(25.98) J&K(31.12) AS(34.65)	AS(26.21)	MP(26.76) GR(28.15) RJS(28.49) PNJ(30.31)	

Percentage Range of Number of Holdings	Marginal	Small	Semi-Medium	Medium	Large
Less than 10% (Low)			KRL(6.07)	KRL(2.23) AS(3.42) J&K(4.71) TN(6.17) WB(6.43) BH(7.08) UP(9.46) ORS(9.70)	AS(0.08) J&K(0.19) KRL(0.28) WB(0.43) TN(0.62) BH(1.06) UP(1.51) ORS(1.82) AP(5.61) MP(7.85) PNJ(8.96) KRN(9.17)
10-25% (Medium)	RJS(16.03) GR(19.76) KRN(20.55) MP(21.72)	KRL(12.14) PNJ(14.20) GR(15.80) KRN(17.45) PNJ(23.42) MHR(23.56)	BH(14.59) TN(16.30) J&K(17.81) WB(18.43) RJS(17.71) MHR(18.04) AP(18.59) MP(19.34) BH(22.89) TN(24.47)	AP(14.80) KRN(21.97) AP(19.10) UP(19.16) AS(19.83) ORS(20.33) MHR(20.76) RJS(24.13) GR(24.44) PNJ(24.89)	GR(11.74) MHR(12.07) RJS(14.78)
Greater than 25% (High)	AS(38.73) ORS(39.95) AP(41.90) UP(43.39) WB(44.98) J&K(47.96) TN(52.44) BH(54.38) KRL(79.28)	UP(26.54) ORS(28.80) WB(29.73) J&K(29.75) AS(37.94)	MP(25.78) KRN(30.86)	MP(25.31) MHR(25.57) RJS(27.35) GR(28.26) PNJ(28.53)	

Percentage Range of Number of Holdings	Marginal	Small	Semi-Medium	Medium	Large
Less than 10% (Low)		KRL(8.90)	KRL(3.66)	KRL(1.13) J&K(2.22) WB(2.98) AS(2.99) BH(4.52) TN(4.93) ORS(5.25) UP(6.20)	J&K(0.00) WB(0.07) AS(0.08) KRL(0.10) BH(0.45) ORS(0.55) TN(0.58) UP(0.65) AP(3.47) KRN(5.40) PNJ(5.81) MP(6.11) GR(8.23) MHR(8.67) RJS(9.53)
10-25% (Medium)	PNJ(14.41) MHR(23.71)	RJS(16.40) PNJ(18.35) AP(19.15) MP(20.29) GR(20.70) TN(21.26) MHR(21.74) WB(22.80) KRN(22.81) BH(23.32)	J&K(12.41) BH(12.85) WB(12.94) TN(13.17) ORS(13.90) AS(14.30) UP(16.45) AP(18.23) RJS(21.30) GR(22.24) MHR(23.44)	AP(11.87) KRN(17.59) GR(21.64) MP(21.64) RJS(21.77) MHR(22.44)	
Greater than 25% (High)	MP(26.11) GR(27.19)	ORS(25.78) UP(26.92) KRN(28.76) RJS(31.00) AP(47.29) UP(49.78) AS(52.40) J&K(54.52) ORS(54.52) BH(58.80) TN(60.06) WB(61.21) KRL(86.21)	KRN(25.44) MP(25.77) AS(30.23) J&K(30.85)	PNJ(30.76) PNJ(30.64)	

Abbreviations Used

AP= Andhra Pradesh, AS= Assam, BH= Bihar, GR= Gujarat, J&K= Jammu & Kashmir
 KRN= Karnataka, KRL= Kerala, MP= Madhya Pradesh, MHR= Maharashtra,
 ORS= Orissa, PNJ= Punjab (including Haryana), RJS= Rajasthan, TN= Tamil Nadu
 UP= Uttar Pradesh, WB= West Bengal

iii) In 1970-71, all the 15 states, in Large farmers class were in the Low level of holdings. Except Punjab and Maharashtra, all other States were in the High level of Holdings in Marginal farmers class. In Medium farmers class, only Punjab had High level holdings. The position of States in Small and Semi-medium classes remained the same almost.

In all the periods, Kerala had the highest percentage of Marginal farmers (around 80 per cent). As such, in all other classes they had Low level holdings. Further in, Marginal farmers class, the percentages had an increasing tendency in almost all the States.

4.5 Changes in the Distribution of Operated Area and Holdings.

In the preceding section, we have examined the inter-State variations in the distribution of area and holdings by farm-size wise. In this section, we study the changes in the area in relation to holdings in different States of India.

The changes have been brought out by Inter-Class Concentration Ratio (ICCR) analysis. The relevance of ICCR was already explained in the previous chapter (3.5). In order to bring such changes the ICCRs were worked out for eleven farm size classes. For Assam, Jammu & Kashmir and West Bengal ICCRs were calculated for eight to nine classes. The ICCRs for three periods (1953-54, 1960-61 and

1970-71) and the Chi-square values for the Phase I (1953-54 to 1960-61) and the Phase II (1960-61 to 1970-71) have been shown in the Table VIII for India and States.

All India: Changes in ICCRs.

At all India level, the value of ICCR was less than 100 for one to four farm-size class, thereby indicating that the area share of these classes which mostly include small and Marginal farmers, was less than their share in holdings. It is after 5th farm-size class that the ICCR really exceeded 100. After 5th farm-size class ICCR had shown a positive relationship with farm-size. As the farm-size increases the percentages of area share vis-a-vis the holdings share goes on increasing. Coming to the changes in ICCR between 1953-54 and 1960-61, the ICCRs had increased in all the classes, but the increases were significant only in 9th and 10th classes. In the period between 1960-61 and 1970-71, the ICCRs had also increased in all classes and the increases were significant from 4th class onwards (i.e. lower Semi-medium class). The results clearly show that in the Phase I (1953-54 - 1960-61) distributional changes had gone in favour of Large farmers only, without any significant improvement in the Status of Marginal to Medium farmers class (1st to 8th class). However in the Phase II, the Semi-medium and Medium classes improved their position significantly in addition to Large farmers. But Marginal and Small farmers classes

TABLE VIII - INTER CLASS CONCENTRATION RATIOS OF OPERATIONAL HOLDINGS FOR
 1953-54, 1960-61 AND 1970-71 AND CHI SQUARE VALUES FOR PHASE I
 (1953-54 TO 1960-61) AND PHASE II (1960-61 TO 1970-71) INDIA & STATES

S. No.	Size Class in Hectares	I N D I A				
		C C R			C H I S Q U A R E	
		1953-54	1960-61	1970-71	Phase I	Phase II
1.	0.002-0.40	5.43	7.41	7.95	0.1220	0.0394
2.	0.41-1.00	22.44	25.48	30.67	0.4118	1.0572
3.	1.01-2.02	47.99	54.47	66.13	0.9750	2.4960
4.	2.03-3.03	81.35	91.36	111.98	1.2317	4.6540*
5.	3.04-4.04	115.34	128.88	158.57	1.5895	6.8397**
6.	4.05-6.07	161.68	178.62	220.87	1.7749	9.9936**
7.	6.08-8.09	229.56	255.47	315.54	2.9244	14.1246**
8.	8.10-10.12	295.26	322.71	403.33	2.5520	22.7163**
9.	10.13-12.14	363.13	404.59	498.97	4.7314*	22.0215**
10.	12.15-20.24	505.50	552.75	680.52	4.7165*	29.5345
11.	20.25 and above	1104.55	1126.21	1343.86	0.4248	42.0628**
					1.5882334	9.5520711

S. NO.	Size Class in Hectares	ANDHRA			PRADESH		A S S A M						
		I	C	C	R	CHITRAONE		I	C	C	R	CHITRAONE	
		1953-54	1960-61	1970-71	Phase I	Phase II	1953-54	1960-61	1970-71	Phase I	Phase II		
1.	0.002-0.40	4.94	5.91	8.54	0.1905	1.1704	8.95	15.70	18.49	5.0908*	0.4958		
2.	0.41-1.00	18.22	22.39	28.36	0.9544	1.5918	31.84	46.61	56.08	6.8515**	1.5392		
3.	1.01-2.02	40.67	50.08	61.34	2.5006	2.5317	69.03	97.63	115.45	11.8493**	3.2526		
4.	2.03-3.03	69.17	81.54	105.75	2.2122	7.1882**	112.42	163.72	185.71	23.4095**	2.9536		
5.	3.04-4.04	97.95	116.95	151.84	3.6813*	10.4088**	159.95	238.12	278.56	38.2029**	6.8679**		
6.	4.05-6.07	136.82	162.44	211.59	4.7974*	14.7507**	221.99	332.81	354.15	55.3226**	1.3683		
7.	6.08-8.09	197.43	225.77	300.00	4.0681*	24.4058	307.09	472.86	539.58	89.4842**	9.4141**		
8.	8.10-10.12	258.21	302.53	389.01	8.7739	24.7208	387.04	593.75	681.62	110.3995**	13.0633**		
9.	10.13-12.14	309.09	373.73	471.85	13.5182**	25.7607	1187.23	675.00	900.00	221.0015**	75.0000**		
10.	12.15-20.24	427.53	502.94	640.94	13.3012	37.8654	(a)	(a)	(a)	(a)	(a)		
11.	20.25 and above	980.58	1018.13	1360.27	1.4399	114.9953	(a)	(a)	(a)	(a)	(a)		
					4.044564	18.839208				29.4382**	2.9120934		

S. NO.	Size Class in Hectares	B I H A R					G U J A R A T				
		I C C R			CHIRQUARE		I C C R			CHIRQUARE	
		1953-54	1960-61	1970-71	Phase I	Phase II	1953-54	1960-61	1970-71	Phase I	Phase II
1.	0.002-0.40	10.25	13.08	13.34	0.7814	0.0052	2.87	5.15	5.98	1.8113	0.1338
2.	0.41-1.00	40.63	44.31	53.82	0.3333	2.0411	11.43	15.35	18.39	1.3444	0.6021
3.	1.01-2.02	86.73	94.06	112.44	0.6195	3.5916*	23.82	31.71	41.30	2.6134	2.9003
4.	2.03-3.03	147.05	158.17	198.48	0.8409	10.2731**	41.22	53.35	68.21	3.5696*	4.1391*
5.	3.04-4.04	209.63	228.05	277.91	1.6186	10.9012**	57.90	71.12	96.92	3.0185	9.3594**
6.	4.05-6.07	291.15	305.74	384.62	0.7311	20.3508**	80.93	97.81	131.69	3.5208*	11.7356**
7.	6.08-8.09	411.21	446.45	563.64	3.0200	30.7616**	114.74	148.53	191.33	9.9509**	12.3331**
8.	8.10-10.12	539.56	568.67	708.89	1.5705	34.5748**	145.29	177.57	240.94	7.1719**	22.6151**
9.	10.13-12.14	639.62	729.41	847.06	12.6047**	18.9763**	180.65	242.51	305.28	21.1827**	16.2471**
10.	12.15-20.24	710.64	922.45	1171.43	0.1532	67.2026**	253.05	331.17	417.77	24.1167**	22.6457**
11.	20.25 and above	1673.91	1852.17	2585.71	18.9835	290.5138	483.66	644.50	724.18	53.4870**	9.8509**
					1.4481071	13.260336				13.509356	10.408014

S. No.	Size Class in Hectares	JAMMU AND KASHMIR					KARNATAKA				
		I C C R			CHIDUARE		I C C R			CHIDUARE	
		1953-54	1960-61	1970-71	Phase I	Phase II	1953-54	1960-61	1970-71	Phase I	Phase II
1.	0.002-0.40	12.07	16.78	18.25	1.8380	0.1288	3.20	3.96	5.91	0.1805	0.9602
2.	0.41-1.00	42.87	48.36	57.33	0.7031	1.6638	16.39	16.81	21.25	0.0108	1.1727
3.	1.01-2.02	89.65	97.71	121.33	0.7246	5.7098*	33.40	35.36	46.87	0.1150	3.7466*
4.	2.03-3.03	156.91	166.31	199.71	0.5631	6.7318**	57.15	60.23	79.03	0.1660	5.8682**
5.	3.04-4.04	214.69	237.79	284.97	2.4855	9.3610**	81.66	82.15	107.31	0.0029	7.7057**
6.	4.05-6.07	277.93	324.19	393.89	7.6997**	14.9853	113.53	117.96	155.66	0.1729	12.0489**
7.	6.08-8.09	403.25	437.23	589.47	2.8533	53.0088**	161.68	169.67	216.56	0.3949	12.0585**
8.	8.10-10.12	883.65	729.82	650.00	26.7858**	8.7299**	210.40	216.45	276.68	0.1740	16.7598**
9.	10.13-12.14	(a)	(a)	(a)	(a)	(a)	257.68	271.53	345.56	0.7498	20.1526**
10.	12.15-20.24	(a)	(a)	(a)	(a)	(a)	356.38	356.28	465.37	0.00008	33.4025**
11.	20.25 and above	(a)	(a)	(a)	(a)	(a)	764.89	684.86	851.46	8.3735**	40.5274**
					2.162278	6.0248824				0.9784176	12.375085

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S. No.	Size Class in Hectares	KERALA				MADHYA			PRADESH		
		C C R			CHIROUARE	C C R			CHIROUARE		
		1953-54	1960-61	1970-71	Phase I	Phase II	1953-54	1960-61	1970-71	Phase I	Phase II
1.	0.002-0.40	21.02	21.68	25.58	0.0207	0.7016	2.58	4.80	4.14	1.9102	0.0908
2.	0.41-1.00	86.65	83.36	123.36	0.1249	19.1936**	14.00	17.86	20.25	1.0643	0.3198
3.	1.01-2.02	191.40	189.13	278.09	0.0269	41.8436**	29.90	36.81	43.67	1.5969	1.2785
4.	2.03-3.03	336.47	318.86	478.66	0.9217	80.0854	50.69	61.67	71.69	2.3784	1.6280
5.	3.04-4.04	471.83	444.31	680.32	1.6051	125.3645**	70.56	87.16	99.79	3.9053*	1.8302
6.	4.05-6.07	670.42	661.59	971.77	0.1163	145.4249**	103.89	120.57	140.71	3.8389*	3.3642
7.	6.08-8.09	990.57	838.00	1395.83	23.4992**	371.3297**	140.70	172.16	200.34	7.0343**	4.6126*
8.	8.10-10.12	1290.91	1318.18	1625.00	0.5761	71.4155**	181.51	218.40	260.78	7.4973**	8.2237**
9.	10.13-12.14	1777.77	1816.67	2000.00	0.8512	18.5008**	224.03	270.50	317.05	9.6641**	7.9883**
10.	12.15-20.24	1870.37	1590.91	3450.00	41.7553**	2172.4771**	310.87	359.73	425.81	7.6974**	12.1385**
11.	20.25 and above	2322.22	4336.36	3900.00	1746.9317**	43.9101**	687.32	774.85	831.35	11.1469**	4.1228*
					32.597306**	54.338103**				5.0696269	3.7056668

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S. No.	Size Class in Hectares	MAHARASHTRA					ORISSA				
		I C C R			CHIROUARE		I C C R			CHIROUARE	
		1953-54	1960-61	1970-71	Phase I	Phase II	1953-54	1960-61	1970-71	Phase I	Phase II
1.	0.002-0.40	2.91	3.77	5.03	0.2542	0.4211	7.26	9.71	12.67	0.8268	0.9023
2.	0.41-1.00	13.76	14.60	16.74	0.0786	0.2843	39.21	32.57	48.81	0.0123	8.0976**
3.	1.01-2.02	29.13	31.10	38.55	0.1332	1.7846	72.00	71.63	105.97	0.0019	16.4629**
4.	2.03-3.03	50.33	52.56	65.63	0.0988	3.2501	119.82	119.10	175.15	0.0043	26.3779**
5.	3.04-4.04	69.74	74.39	90.94	0.3100	3.6820*	171.88	171.41	248.91	0.0013	35.0403**
6.	4.05-6.07	98.37	104.70	125.60	0.4073	4.1728*	234.37	238.67	344.82	0.0789	47.2109**
7.	6.08-8.09	139.02	148.97	180.47	0.7121	6.6607**	336.04	338.38	481.63	0.0163	60.4435**
8.	8.10-10.12	178.59	186.91	235.53	0.5964	11.5051**	432.28	446.39	647.14	0.4606	90.2811**
9.	10.13-12.14	220.13	231.55	285.81	0.5925	12.7150**	534.95	514.00	770.83	0.8205	128.3301**
10.	12.15-20.24	306.61	321.11	392.54	0.6857	15.8894**	770.87	821.51	1072.00	3.3266	76.3779**
11.	20.25 and above	649.59	636.54	754.07	0.2622	21.7006**	1187.50	1156.41	1550.00	0.8140	133.9603**
					0.3101819	7.1435935				0.3055528	27.513918**

S. No.	Size Class in Hectares	P U N J A B					R A J A S T H A N				
		I C C R			CHIROUARE		I C C R			CHIROUARE	
		1953-54	1960-61	1970-71	Phase I	Phase II	1953-54	1960-61	1970-71	Phase I	Phase II
1.	0.002-0.40	2.27	4.63	4.82	2.4536	0.0078	3.25	3.23	1.68	0.0001	0.7438
2.	0.41-1.00	14.79	16.95	17.30	0.3159	0.0072	10.11	12.74	16.29	0.6842	0.9892
3.	1.01-2.02	33.01	35.77	37.28	0.2308	0.0637	21.32	26.09	35.30	1.0672	3.2512
4.	2.03-3.03	53.69	63.72	61.83	1.8737	0.0561	36.27	42.73	59.29	1.1506	6.4178*
5.	3.04-4.04	76.33	87.84	88.09	1.7356	0.0007	51.06	62.60	85.76	2.6081	8.5685**
6.	4.05-6.07	102.84	120.98	123.65	3.1997	0.0569	72.58	82.02	116.90	1.2278	14.8331**
7.	6.08-8.09	148.41	168.60	174.24	2.7467	0.1897	101.22	116.97	167.44	2.4507	21.7767**
8.	8.10-10.12	191.16	213.42	219.26	2.5921	0.1598	130.90	147.96	220.16	2.2234	35.2314**
9.	10.13-12.14	233.43	273.63	275.90	6.9230**	0.0188	159.46	194.67	264.89	7.7746**	25.3293**
10.	12.15-20.24	322.24	324.52	368.81	0.0161	6.0446*	226.70	260.70	365.88	5.0993*	42.4351**
11.	20.25 and above	672.73	542.86	658.97	25.0713**	24.8343**	324.24	599.15	764.05	10.7041	49.3843
					3.3948109	1.565809				4.0198855	20.359649

S. NO.	Size Class in Hectares	TAMIL NADU			UTTAR PRADESH						
		CROPPED AREA			CROPPED AREA						
		1953-54	1960-61	1970-71	Phase I	Phase II	1953-54	1960-61	1970-71	Phase I	Phase II
1.	0.002-0.40	8.58	15.04	15.47	4.8638	0.0123	10.72	11.79	13.92	0.1068	0.3848
2.	0.41-1.00	39.99	45.49	50.81	0.7564	0.6222	35.15	36.10	43.58	0.0257	1.5499
3.	1.01-2.02	86.78	94.32	106.91	0.6551	1.6805	74.56	78.90	93.98	0.2526	2.8822
4.	2.03-3.03	145.00	161.47	185.70	1.8708	3.6359*	126.19	130.98	158.42	0.1818	5.7486*
5.	3.04-4.04	206.75	224.95	261.05	1.6021	5.7933*	179.05	182.03	229.31	0.0496	12.2804*
6.	4.05-6.07	291.56	315.55	364.17	1.9739	7.4914**	239.03	255.56	315.56	0.0011	14.0867*
7.	6.08-8.09	413.17	462.60	518.18	5.9156*	6.6778**	356.74	367.11	452.03	0.3014	19.6437*
8.	8.10-10.12	534.07	577.63	689.19	3.5529*	20.0287**	461.17	420.76	576.12	3.9409	57.3646*
9.	10.13-12.14	660.42	728.57	812.00	7.0325**	9.5537**	557.75	516.00	692.86	3.1252	60.6191*
10.	12.15-20.24	893.82	954.71	1125.00	7.4033**	26.6328**	744.74	821.67	906.45	7.9467**	8.7476*
11.	20.25 and above	1863.04	1721.43	2240.00	**	**	1614.29	1437.50	2033.33	19.3613**	246.9638*
					2.4388936	4.7976851				0.826791	10.23637

S. No.	Size Class in Hectares	W E S T			B E N G A L	
			C C B		CHHOUABE	
		1953-54	1960-61	1970-71	Phase I	Phase II
1.	0.002-0.40	10.19	11.88	15.18	0.2803	0.9167
2.	0.41-1.00	47.92	45.07	62.93	0.1695	7.0774**
3.	1.01-2.02	100.80	93.91	126.84	0.4710	11.5471**
4.	2.03-3.03	170.89	156.66	214.10	1.1849	21.0606**
5.	3.04-4.04	242.20	225.86	307.82	1.1024	29.7416**
6.	4.05-6.07	330.97	307.31	413.68	1.6911	36.8181**
7.	6.08-8.09	487.43	448.57	612.87	3.0981	59.5944**
8.	8.10-10.12	596.05	589.04	807.14	0.0824	80.7545**
9.	10.13-12.14	1006.15	644.19	914.29	30.2142**	113.2492**
10.	12.15-20.24	(a)	(a)	(a)	(a)	(a)
11.	20.25 and above	(a)	(a)	(a)	(a)	(a)
					4.1336965	17.359028

still (1st to 3rd class) had quite low level ICCRs and overtime it had not shown any improvement in its position.

State-wise Changes in ICCRs: 1953-54 and 1960-61.

During this period it was observed that in majority of the States (Ten States) most of the farm-sizes experienced increases in the ICCRs except 1st and last class in some States. In four States, viz Andhra Pradesh, Bihar, Gujrat and Madhya Pradesh, the ICCRs had increased in all the size classes (1st to 11th class). In Rajasthan the ICCRs increased in all classes except 1st class (in 1st class the ICCR remained almost the same). In five States, viz. Assam, Jammu and Kashmir, Maharashtra, Punjab and Tamilnadu the ICCRs increased in all classes except last class. The test of significance of these changes by Chi-square are given below:

i) In Andhra Pradesh, the increases in ICCRs were significant from 5th to 9th class.

ii) In Gujrat and Madhya Pradesh, the increases in ICCRs were significant from 4th or 5th class to 11th class, which cover Semi-medium to Large farmers classes.

iii) In Bihar and Rajasthan, the increases were significant only in Large farmers class i.e 9th to 11th classes. In Bihar the increase in 10th class was not significant, however.

iv) In Assam, the increases in ICCRs were significant in all the classes upto 8th class. Further the decrease in ICCR of the last class (combined) was also significant. The weighted Chi-square was also significant in this State.

v) In Tamilnadu, the increases in ICCRs were significant in 7th to 10th class and the decrease in 11th class was also significant.

vi) In Jammu & Kashmir, the increase in ICCR of 6th class and the decrease in ICCR of last (combined one) were significant.

vii) In Punjab, the increase in ICCR of 9th class and the decrease in ICCR of 11th class were significant.

viii) In Maharashtra, neither the increases upto 10th class nor the decrease in 11th class was significant. Thus, the changes in all classes were insignificant.

Further, in the remaining five States the pattern of changes in ICCRs was diversified except in West Bengal. The changes in ICCRs and their significance in respect of these 5 States are as follows:

i) In West Bengal except in 1st class, the ICCRs decreased and the decrease was significant only in the last class.

ii) In Karnataka, the ICCRs increased upto 9th class but the increases were not significant. In 10th class the ICCR remained almost the same. But the decrease in the ICCR of the last class was significant.

iii) In Orissa, the ICCRs increased in five classes, viz. 1st, 6th, 7th, 8th and 10th classes, but these increases were not significant. Also the decreases in the other six classes turned out to be insignificant. That is, the changes in ICCRs of all classes became insignificant.

iv) In Uttar Pradesh, the ICCRs increased upto 7th class and in 10th class and they decreased in 8th, 9th and 11th classes. The increase in 10th class and the decreases in 8th and 11th classes were significant.

v) In Kerala, the ICCRs increased in 1st, 8th, 9th and 11th classes, and in all other classes they decreased. The increase was significant in 11th class. The decreases in 7th and 10th classes were also significant. In this State the weighted Chi-square was also significant.

From the above analysis, it is observed that in the States where the ICCRs had increased upto ~~the~~ Semi-medium farmers class (i.e. 1st to 5th class) the changes were significant only in a few States. Increases in the class 6th onwards upto 10th class were rarely significant. However an important distributional change in as many as 7 States (nearly 50 per cent of the States) was the significant decrease in the ICCR of last class in the large farmers class.

Changes Between 1960-61 and 1970-71.

In this period, in as many as 10 States the ICCR had increased, in all classes. These States were Andhra

Pradesh, Assam, Bihar, Gujrat, Karnataka, Maharashtra, Orissa, Tamilnadu, Uttar Pradesh and West Bengal. In Madhya Pradesh and Rajasthan, the ICCRs increased in all classes except in the 1st class. In two other States, viz Jammu & Kashmir and Kerala, the ICCRs increased in all classes except in the last class. In the remaining State, viz. Punjab the ICCR increased in all classes except in 4th class.

The test of significance of these changes by Chi-square, shows the following results.

i) In Orissa and West Bengal, the increases in the ICCRs were significant in all the classes except 1st class (lower Marginal farmers class). Thus in these States in addition to the Semi-medium farmers classes, the small and upper Marginal farmers classes had also shown significant improvement.

ii) In Bihar and Karnataka, the increases in the ICCRs were significant in the classes from 3rd to 11th class. In these States although the position of Marginal farmers did not improve. Small farmers had improved their position, at the lower end.

iii) In five States, viz. Andhra Pradesh, Gujrat, Tamilnadu Uttar Pradesh and Rajasthan, the increases in ICCRs were significant in the classes from 4th to 11th class. Thus in these States the position of Semi-medium classes (both lower and upper) improved considerably.

iv) In Maharashtra, the increase in the ICCR was significant in the classes from 5th class onwards. In the Lower classes it was not significant.

v) In Assam, although the ICCR increased in all the classes, the increase was significant in 5th, 7th, 8th and 9th classes. The significant test was biased towards the Medium and Large farmers.

vi) In Madhya Pradesh, where the ICCRs increased in all classes except 1st class, the increase was significant in the classes 7th onwards. Here also the bias was found in favour of Medium and Large classes.

vii) In Jammu & Kashmir, where the ICCR increased in all classes except the last class, the increase was significant in the classes from 3rd to 7th class and in the last class where the ICCR decreased, the decrease was also significant. As the last class is the combined class of upper Medium and the three Large farmers classes, the significant decrease in this class shows the decrease in the concentration. Although the Marginal classes did not gain significantly, other intermediate classes had experienced significant improvement.

viii) In Kerala, where the ICCR increased in all classes except in last class, the increase was significant in the classes from 2nd to 10th class, and the decrease in the last class also was significant.

ix) In Punjab, where the ICCRs increased in all the classes except in 4th class, the increases were significant in the last two classes (i.e 10th and 11th classes). Thus

the significant improvement was in favour of Large farmers.

x) The weighted Chi-square was significant in five States, viz. Andhra Pradesh, Kerala, Orissa, Rajasthan, and West Bengal. In all these States the positive changes were significant in almost all the classes.

From the above analysis of the period between 1960-61 and 1970-71, it is observed that in majority of the States in most of the classes, there were positive and significant changes. However, only in four States the positive shift in favour of marginal farmers and Small farmers classes was significant and in rest of the States the increases were not significant.

In majority of the States, Semi-medium to Large farmers classes experienced significant improvement. Further in five States the weighted Chi-square also was significant.

Summary.

1. The Percentage of Households Operating No Land (in Household Operational Holdings).

a) As regards the households operating no land, at all India level it had shown two and half times increase between 1953-54 and 1960-61, i.e from 10.87 to 26.86 per cent, and then further to 27.42 in 1970-71. Coming to that State-wise position, there were considerable variations in all the three periods. Punjab had the highest per cent

of households operating no land in 1953-54 and 1970-71 and Tamilnadu had this position in 1960-61. Jammu & Kashmir had the lowest position in 1960-61 and 1970-71. In 1953-54, this position was assumed by West Bengal. The lowest and highest percentages of households operating no land were 0.89 and 28.97 in 1953-54; 11.09 and 44.91 in 1960-61 and 6.64 and 54.25 in 1970-71 respectively. In the period between 1953-54 and 1960-61, the percentages of households operating no land increased in all States except Rajasthan. The increase was very sharp in West Bengal (0.89 - 33.88 per cent) and Tamilnadu (3.91 - 44.91). In the period between 1960-61 and 1970-71, there was decrease in the proportion of such house holds in 10 States, and the decrease was more in 4 States.

b) At all India level the percentage of households owning but not operating land increased considerably between 1960-61 to 1970-71, from 17.42 to 20.51. Coming to the State-wise position, in 1960-61 the percentages of households owning but not operating land varied between 5.30 for Jammu & Kashmir to 32.03 for Andhra Pradesh. In 1970-71 it varied between 1.44 for Kerala and 48.04 for Punjab. Between 1960-61 and 1970-71 in more than 50 per cent of States (8 States) the percentages had gone up.

2. The Average Size of the Holdings (of Operational Holdings).

At all India level the average size of operational holdings gradually declined from 3.05 ha in 1953-54 to 2.63 ha. in 1960-61 and then to 2.20 ha. in 1970-71. The decline at all India level was shared by many States. Coming to the State-wise variations in 1953-54 the average size varied between 0.74 and 6.86 ha in 1960-61 it varied between 0.75 and 5.55 ha and in 1970-71 it varied between 0.51 and 4.17 ha. Interestingly in all the three periods the lowest and highest sizes were found in Kerala and Rajasthan respectively. In the period between 1953-54 and 1960-61, the average size increased in all the States except Kerala and West Bengal. In the period between 1960-61 and 1970-71, it increased in all the States except Punjab. In both the periods the decreases in the average size was more in half of the States in India.

3. Gini Coefficient Values.

In 1953-54, only five states had shown a Very Low and Low concentration in operational holdings. In 1960-61 and 1970-71, the number of States in very low and low had increased to eleven. Thus majority of States had shown a low level of concentration. The Gini coefficient varied between 0.4256 for Jammu & Kashmir to 0.6524 for Andhra Pradesh in 1953-54; 0.3811 for Assam and 0.6157 for Andhra Pradesh in 1960-61; and 0.3906 for Jammu & Kashmir

and 0.6237 for Rajasthan in 1970-71. During 1953-54 to 1960-61, the inequality had decreased in all the States in many of the States, the decreases were more. At all India level also the Gini value has decreased considerably. Between 1960-61 and 1970-71, the inequality decreased in 10 states, but the decreases were more only in a few States. It was comparatively more in Rajasthan. At all India the inequality remained almost the same in this period.

4. Distribution of Area and Holdings.

As regards the area operated, in all the three periods, a group of seven States, viz; Rajasthan, Gujrat, Punjab, Madhya Pradesh, Maharashtra, Karnataka and Andhra Pradesh, had the High level area share (more than 25 per cent) in Large and Medium farmers classes and as a result they had Low area share in Marginal and Small farmers classes. In 1953-54 in only two States the percentage of area operated by Small and Marginal farmers was High. In rest of the States, the share of Semi-medium and Medium class was relatively High. However by 1970-71, the number of States, wherein Marginal and Small farmers accounted for High percentage area increased to seven. As a result the number of States in Semi-medium and Medium classes had decreased from six in 1953-54 to one in 1970-71. As a matter of fact, five of the States, shown to have decreased in the last category, maintained their High share in that category.

As far as the number of holdings are concerned, in 1953-54 in as many as ten States, the percentage of holdings in Marginal farmers class was High (greater than 25 per cent), and in Large farmers class, there were ten States with Low percentage of holdings. By 1970-71, the number of States, where the percentage of Marginal farmers class was High, further increased to thirteen and also the number of States with High percentage increased to fifteen. As far as the Semi-medium and small farmers classes are concerned, it had shown Medium range of holdings (10 - 25 per cent).

5. Changes in the Distribution of Area and Holdings - ICCR Analysis.

Coming to the changes at all India level during 1953-54 to 1960-61 though there was general increase in ICCR of all 11 size-classes, the increase was significant only in Large farmers classes. Between 1960-61 and 1970-71, the ICCR increased in all classes, but the increases were significant from Semi-Medium class onwards (from 4th class onwards).

In the Phase I (1953-54 to 1960-61), the ICCR analysis for the States showed that in majority of the States, the ICCR increased for all classes except for 1st or last class in a few States. Even in the States where the ICCRs increased for the Marginal/Small classes (1st to 5th class), the changes were significant only in a few States. An

important distributional change that may be noted is that in as many as 7 States there was significant decrease in the ICCR of last class. In two States, viz Assam and Kerala the weighted Chi-square was also significant.

In the Phase II (1960-61 to 1970-71), in all the States the ICCR increased in most of the classes, except marginal class (two States) larger class (two States) and 4th class (one State). The test of significance revealed that in majority of the States in most of the classes, there were positive and significant changes. In four States, only the positive and significant changes were in favour of Marginal and Small farmers class. In majority of the States, Semi-medium to Large farmers classes experienced significant improvement. Further the weighted Chi-square was significant in five States.

CHAPTER V

CHAPTER V

INTER-STATE VARIATIONS AND TEMPORAL CHANGES IN THE EXTENT OF TENANCY

"Tenancy is a method of equating the demand for land with the supply. In the absence of tenancy, underground arrangements are bound to subsist"¹ says A.M. Khusro. Further, he observed that tenancy is regarded as a help rather than a hindrance, in many parts of the world; once the tenancy loses its exploitative edge.² Tenancy is not related to any one mode of production, - "Tenancy as an institution has both pre-dated and post-dated feudalism, it has also coexisted with feudalism both as an integral part of the feudal system as well as an institution of differing, on vital points, from feudalism. It existed in the antiquity when the dominant mode of production was slavery, it existed in the Medieval period when the dominant mode of production, in Western Europe was feudalism; and at least in some countries it continued into 20th century as an integral part of developed capitalism. In India, until recently tenancy was an institution which was very much a part of the pre-capitalist relations of production that characterised agriculture. But it is getting changed

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1. A.M.Khusro: The Economics of Land Reform and Farm Size in India, Macmillan India, 1973, p. xxvi.
 2. Ibid. p. xxvi.

along with changing conditions to the point of becoming compatible with emerging capitalist relations".³ M.L.Dantwala and C.H.Shaw⁴ pointed out that there are three broad factors behind the lease activities: (i) Ownership of land is not desired by land owners solely or even primarily for self-cultivation. This leads to the difference between the distribution of ownership holdings and operational holdings. (ii) Migration of members of cultivating families to urban areas. (iii) Fragmentation of holdings into distant parcels; wherein leasing-in of nearest parcels and leasing-out of distant parcels is opted. The lease-market, however, would be dependent on the types of tenants, who are on demand side, and types of owners of the land, on the supply side.⁵

Before independence, in India, there was very high proportion of cultivated land under tenancy. Just after independence, the area under tenancy was as high as 40%. As per 1951 census,⁶ the leased-in area was 43.2% and as

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3. A.Chakravarty: "Tenancy and Mode of Production", Economic and Political Weekly, 20, March.81.
 4. M.L.Dantwala and C.H. Shaw; Evaluation of Land Reforms, Department of Economics, University of Bombay, 1971, p.122.
 5. Ibid., p. 122.
 6. G. Kotovsky: Agrarian Reforms in India, PPH, 1964, p.21.

per Agricultural Labour Enquiry of 1950-51,⁷ the leased-in area was 35.7%. But in 1953-54, as estimated by NSS, the proportion of leased-in area to the total operated area was only 20.34 per cent. According to NSS, the magnitude of tenancy has reduced to half in 1960-61, and remained unchanged almost in 1970-71. In 17th round of 1960-61 and 26th round of 1970-71, the leased-in areas were 10.7 and 10.57 respectively.

In the present chapter our purpose is to deal with inter-state variations and temporal changes in the extent of tenancy, based on the N.S.S. data. The NSS provided two types of data on tenancy which is as follows:

- i) Leasing out aspect in the Household Ownership Holdings; wherein the number of households leasing out and area leased out are given size-class wise.
- ii) Leasing-in aspect in the Operational Holdings, wherein the operational holdings reporting owned area and leased-in area are given size-class wise.

As far as leasing out aspect is concerned it has been pointed out that there had been under-reporting in holdings leasing out and area leased out of the Household Ownership Holdings. Under-reporting is less possible

7. P.C.Joshi, "Land Reforms and Agrarian Change in India and Pakistan since 1947, Journal of Peasant Studies, January 1974 and April 1974.

in case of leasing-in aspect of operational holdings. Several studies - Dharam Narain and P.C. Joshi (1969)⁸, P. Burdhan (1970)⁹ and S.K. Sanyal (1973)¹⁰ - have accepted that the data of leased-in area of operational holdings is more reliable than leased out area in the household ownership holdings for several reasons.

Because of the less reliability, very few studies have already really examined the leasing-out aspects of agrarian structure in India. In this chapter, however, with this limitation in mind, we propose to discuss the leasing-out and leasing-in pattern in India and States. Analysis of leasing out and leasing in is mostly based on the NSS data. However to fill the gaps in NSS data other sources are also used. The NSS provided leasing-in data for only two points of time, namely, 1953-54 and 1970-71. Therefore the State-level data of leased-in area for 1960-61 was obtained from P. Burdhan's article¹¹ and of operational holdings reporting leased-in area for 11 states was obtained from

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8. Dharam Narain and P.C. Joshi: "Magnitude of Tenancy", Economic and Political Weekly, Review of Agriculture, September, 1969.
 9. Pranab Burdhan: "Trends in Land Relations - A Note", Economic and Political Weekly, Annual Number, Jan, 1970.
 10. S.K. Sanyal: "Has There Been a Decline in Agricultural Tenancy", Economic and Political Weekly, 6, May, 1973.
 11. P. Burdhan: "Variations in Extent and Forms of Tenancy I & II", Economic and Political Weekly, 11 & 13, September, 1976.

data published in the articles of P.C.Joshi¹² and S.K.Sanyal.¹³ In analysing the leasing-out and leasing-in pattern and changes, main emphasis would be focused on inter-state variations.

PART A

5.1 Leasing Out Pattern in Household Ownership Holdings.

The discussion on leasing out pattern is conveniently set into four sections. The first section deals with inter-state variations in percentage of household leasing out and area leased out. In the second section we try to bring out the differences by looking at the percentage shares of leased out area and households leasing out of different states in the total area leased out and household leasing out in India. The third section deals with inter-state variations in the distribution of percentage of area leased out and households leasing out according to the various farm-size groups. The analysis is done for three periods viz; 1953-54, 1960-61 and 1970-71.

5.1.1 Percentages of Area Leased Out and Households Leasing out in India and States.

The Table 1 gives the per cent of household leasing

12. P.C.Joshi: op.cit.

13. S.K. Sanyal: "Trends in Some Characteristics of Land Holdings - An Analysis for a Few States" in Sarvekshana, July, 1977.

Table-I Percentages of Households Leasing-out and Leased-out Area in States and All India for 1953-54, 1960-61 and 1971.

States	1953-54		1960-61		1970-71	
	% No.	% Area	% No.	% Area	% No.	% Area
1) Andhra Pradesh	14.89	13.95	6.95	5.33	12.05	8.93
2) Assam	11.21	14.02	6.50	4.97	12.00	8.18
3) Bihar	15.34	6.95	7.30	3.56	15.80	6.78
4) Gujarat	14.19	8.81	1.46	0.52	3.79	2.29
5) Jammu & Kashmir	19.07	16.13	5.76	3.96	3.73	3.21
6) Karnataka	16.80	14.26	14.54	8.88	11.05	7.90
7) Kerala	23.28	15.74	8.88	8.54	6.47	3.00
8) Madhya Pradesh	19.39	10.80	6.03	3.70	7.68	3.62
9) Maharashtra	16.36	12.94	4.00	9.96	5.02	3.20
10) Orissa	13.07	8.02	5.46	4.76	13.11	7.04
11) Punjab	36.90	30.09	11.83	13.68	12.80	13.36
12) Rajasthan	11.75	6.42	3.09	0.72	5.78	4.09
13) Tamilnadu	20.45	15.37	7.96	7.05	8.44	8.88
14) Uttar Pradesh	10.79	5.84	7.66	3.66	10.06	6.41
15) West Bengal	13.10	15.51	7.33	7.22	9.48	8.95
All India	15.64	11.43	7.03	4.43	9.87	5.77

out and area leased out for India and States. The all India level data is simply explained and to bring out the inter-state variations, the States have been divided into four categories depending on the ranges of percentage area leased out, as follows:

- 1) Low Tenancy States: Less than 5%
- 2) Medium Tenancy States: 5-10%
- 3) Higher Tenancy States: 10-15%
- 4) Very High Tenancy States: Greater than 15%

5.1.1.1 All India Level Percentage and Changes.

At all India level, the area leased out was 11.43, 4.43 and 5.77 per cent respectively in the years 1953-54, 1960-61 and 1970-71. In the same years, the percentage of households leasing out was 15.64, 7.03 and 9.87 per cent respectively. Thus, it is clear that between 1953-54 and 1960-61 both the percentages of leased out area and households leasing out have declined sharply, and between 1960-61 and 1970-71 both have increased, though marginally. This indicates tendencies of lesser under-reporting the tenancy in 1970-71 than in 1960-61.

5.1.1.2 Inter-State Variations 1953-54.

For 1953-54, the results show considerable inter-state variations in the proportions of area leased-out and households leasing-out. The proportion of area varies from 5.84 per cent for Uttar Pradesh to 30.09 per cent

for Punjab. The percentage of households leasing-out was also lowest for Uttar Pradesh and highest for Punjab in 1953-54. The percentages of area and holdings were higher than all India averages for six States, namely Jammu and Kashmir, Karnataka, Kerala, Maharashtra, Punjab and Tamilnadu. Based on the ranges of Low, Medium, High and Very High order tenancy, the regional pattern that has emerged is as follows:

i) Low Tenancy States: There were no states in this category where the per cent of area leased out was less than 5 per cent.

ii) Medium Tenancy States: There were five states in this category. They were Uttar Pradesh, Rajasthan, Bihar, Orissa and Gujrat, with 5.84, 6.42, 6.95, 8.02 and 8.81 per cent leased out area. In these states, the percentage households leasing out were 10.79, 11.75, 15.34, 13.07 and 14.19 per cent respectively.

iii) High Tenancy States: There were five states in this category. They were Madhya Pradesh, Maharashtra, Andhra Pradesh, Assam and Karnataka, with 10.80, 12.94, 13.95, 14.02 and 14.26 per cent, leased out area. In the same states, the share of leasing out households was 19.39, 16.36, 14.89, 11.21 and 16.80 per cent respectively.

iv) Very High Tenancy States: Five States have shown very high proportion of leased out area. They were Tamil Nadu, West Bengal, Kerala, Jammu and Kashmir and Punjab with

15.37, 15.51, 15.74, 16.13 and 30.09 per cent leased out area respectively. In the same states, the percentage of households leasing out was 20.45, 13.10, 23.28, 19.07 and 36.90 per cent respectively.

5.1.1.3 Inter-State Variations 1960-61.

In 1960-61, there was an overall decline in the area leased out and households leasing out in India. The results also indicate considerable inter-state variations. In Gujrat both the percentages of area leased out and households leasing out was the lowest. Interestingly in this period also, the highest percentage of leased out area was found in Punjab. The highest percentage of households leasing out was in Karnataka. Eight States showed higher percentage of leased out area than India's average. The all India level percentage of households leasing out was exceeded by seven States. Both the percentages of area and households were exceeded in five States viz; Karnataka, Kerala, Punjab, Tamilnadu and West Bengal.

The inter-State pattern in 1960-61 is as follows.

1) Low Tenancy States: There were as many as 9 States in this category, as shown below.

States	% Area Leased out	% Households Leasing out
1. Gujarat	0.52	1.46
2. Rajasthan	0.72	3.09
3. Bihar	3.56	7.30
4. Uttar Pradesh	3.66	7.66
5. Madhya Pradesh	3.70	6.03
6. Jammu and Kashmir	3.96	5.76
7. Maharashtra	3.96	4.00
8. Orissa	4.76	5.46
9. Assam	4.97	6.50

The predominance of States in low tenancy range was primarily due to an overall decline in the proportion of area leased out in 1960-61 presumably partly because of real declines in leasing out area and partly due to under-reporting of the figures.

ii) Medium Tenancy States: There were five states in medium category. They were Andhra Pradesh, Tamil Nadu, West Bengal, Kerala, and Karnataka, with 5.33, 7.05, 7.22, 8.54 and 8.88 per cent respectively. In these states, the percentages of households leasing out were 6.95, 7.96, 7.33, 8.88 and 14.54 respectively.

iii) High Tenancy States: There was only one state in high tenancy category, viz. Punjab. The percentage of leased

out area in this state was 13.68 and the percentage of households leasing out was 11.83.

iv) Very High Tenancy States: There were no states in this category. Due to decline in leasing out area, the number of States have moved to low and medium categories.

5.1.1.4 Inter-State Variations 1970-71.

Coming to the last period 1970-71, the States, viz; Punjab and Gujrat continued to show the highest and lowest percentages of leased out area. They held the same position in 1960-61. In fact Punjab had highest leased out area in all the periods under study. The highest and lowest percentages of households leasing out were found in Bihar and Jammu & Kashmir respectively. The all India level percentage of leased out area was exceeded in nine States and the percentage of households leasing out was exceeded in seven states. At least in seven States, both the percentages of holdings leasing out and area leased out were exceeded. They were Andhra Pradesh, Assam, Bihar, Karnataka, Orissa, Punjab and Uttar Pradesh.

The division of states into four categories of tenancy is as follows:

1) Low Tenancy States: There were six states in this category and they were Gujarat, Kerala, Maharashtra, Jammu and Kashmir, Madhya Pradesh and Rajasthan with 2.29, 3.00, 3.20, 3.21, 3.62 and 4.09 per cent leased out area respec

tively. In the same states, the households leasing out were 3.79, 6.47, 5.02, 3.73, 7.68 and 5.78 per cent respectively.

ii) Medium Tenancy States: Eight states indicated the medium level tenancy. Thus more than 50 per cent of the States leased out area in the medium range. The Table below show the per cent of area and holdings leasing out for such States.

States	% Area Leased out	% Households Leasing out
1. Uttar Pradesh	6.41	10.06
2. Bihar	6.78	15.80
3. Orissa	7.04	13.11
4. Karnatak	7.90	11.05
5. Assam	8.18	12.00
6. Tamil Nadu	8.88	8.44
7. Andhra Pradesh	8.93	12.05
8. West Bengal	8.95	9.48

iii) High Tenancy States: There was only one state in this category, viz, Punjab, with 13.36 per cent area leased out and 12.80 per cent households.

iv) Very High Tenancy States: There were no states in the very high category.

5.1.1.5 Changes in Period I (1953-54 to 1960-61) and
Period II (1960-61 to 1970-71).

Changes in Period I (1953-54 to 1960-61): Although the comparison between 1953-54 and 1960-61 is difficult exercise, yet some important points may be noted. In this period, in all the States, the area under tenancy has decreased and sharp decline has been observed, in case of Punjab, Andhra Pradesh, Assam, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Tamil Nadu and West Bengal. Further, all states, experienced decreases in the percentages of households leasing out. The sharp decreases in this phase, could be attributed to several factors: (i) Under-reporting by household ownership holdings due to, impending ceiling laws and previous tenancy laws. (ii) Definitional change in respect of ownership of land, as the long term lease was treated as ownership after 8th round NSS and (iii) Eviction of tenants that took place between 1953-54 and 1960-61 due to tenancy laws.

Changes in Period II (1960-61 - 1970-71) Between 1960-61 and 1970-71 at all India level there was an increase in area leased out. However, the percentage of leased out area, increased, in nine states of Andhra Pradesh, Assam, Bihar, Orissa, Rajasthan, Uttar Pradesh, Gujarat, Tamil Nadu and West Bengal. The increases being sharp in the first six states. While the percentage of leased out area de-

creased in six states namely Kerala, Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharashtra and Punjab.

The decrease was quite sharp in case of Kerala. In case of leasing out holdings, with the exception of Jammu and Kashmir, Karnataka and Kerala, rest of the States have experienced declines, the decrease being large in Karnataka. Among the States showing increase in the proportion of leasing out holdings, the prominent States were Andhra Pradesh, Assam, Bihar and Orissa. All these results indicate that the under-reporting bias had undergone change between 1960-61 and 1970-71. This may be due to (i) the relatively eased position of the laws-implementation and scope for manipulations, such as benami transfers and (ii) legal in-action towards those owners who circumvented the laws.

5.1.2 Shares of Area Leased Out and Households Leasing Out of States in the Total Leased Out Area and Total Households Leasing Out in India.

Another way to look at the inter-state variations is to see the percentage share of leased out area and holdings leasing out in the total area and holdings in India. In order to bring out these aspects, the percentage of each state in total (all India) leased out area and holdings leasing out is calculated for 1953-54, 1960-61 and 1970-71.

Depending on the spread up of percentage figures the states have been divided into 3 categories viz (i) The Low Level (less than 5%) (ii) the Medium Level States

2-35 196 14 236
(5-10%), and (11) High Level States (more than 10%).

The percentage of shares of households leasing out are also considered conveniently. The results for three points of time have been presented in Table II.

5.1.2.1 Inter-State Variations 1953-54.

In 1953-54, there were variations in the percentage shares accounted by different States in India. The highest share of leased out area was assumed by Maharashtra, but the highest share in households leasing-out was shared by Uttar Pradesh, while Jammu and Kashmir had both the lowest shares of leased-out area and leasing out households.

The Regional Pattern of States is as follows:

1) Low Level States. There were six states which shared only less than 5 per cent of leased out area, these were Jammu and Kashmir, Kerala, Assam, Orissa, Bihar and West Bengal. Of these states four were from Eastern India. All these states put together accounted for only 15.12 per cent leased out area but accounted for 27.99 per cent households leasing out.

ii) Medium Level States. The States which falls in medium range were Gujarat, Rajasthan, Tamil Nadu and Uttar Pradesh. Of these states two were from Western India and one from Northern India. These states together contributed 23.98 per cent leased out area whereas they accounted for 31.79 per cent households leasing out.

Table- II : Shares of States in Leased-out Area and Households leasing-out in All India Level, 1953-54, 1960-61 and 1970-71 1960-61

Range of Shares Leased out Area	States	% share of Leased out Area	% share of Households leasing out	States	% share of Leased out area	% share of Household leasing out
5% (Low)	1. Jammu & Kashmir	0.71	1.07	1. Jammu & Kashmir	0.48	0.69
	2. Kerala	0.86	2.89	2. Gujarat	0.85	0.87
	3. Assam	2.22	1.56	3. Assam	1.60	2.33
	4. Orissa	2.62	4.74	4. Rajasthan	1.80	1.96
	5. Bihar	4.16	11.91	5. Kerala	1.90	3.40
	6. West Bengal	4.55	5.82	6. Orissa	4.13	4.24
5-10% (Medium)	7. Gujarat	5.41	2.95	7. West Bengal	5.83	7.00
	8. Rajasthan	5.82	3.17	8. Bihar	5.98	12.60
	9. Tamilnadu	6.25	11.05	9. Tamilnadu	6.00	9.27
	10. Uttar Pradesh	6.50	14.62			
7.10% (High)	11. Andhra Pradesh	10.00	7.34	10. Andhra Pradesh	10.64	9.56
	12. Karnatka	10.85	6.51	11. Madhya Pradesh	10.96	6.67
	13. Madhya Pradesh	12.01	8.98	12. Maharashtra	11.07	3.95
	14. Punjab	12.90	8.08	13. Punjab	11.74	5.92
	15. Maharashtra	13.62	7.63	14. Uttar Pradesh	11.95	22.15
				15. Karnataka	14.33	9.38
	Other States	1.51	1.68		0.74	0.01
	All States	100.00	100.00		100.00	100.00

**Table- II : Shares of States in Leased-out Area and Households
leasing out in All India Level, 1970-71**

1970 - 71

Range of Shares Leased out Area	States	% share of leased out area	% share of Household leasing out
5% (Low)	1. Jammu & Kashmir	0.25	0.30
	2. Kerala	0.47	1.84
	3. Assam	2.22	2.73
	4. Gujrat	2.81	1.70
	5. Orissa	3.99	6.84
5-10% (Medium)	6. West Bengal	5.03	6.78
	7. Tamilnadu	5.53	5.84
	8. Bihar	7.18	17.71
	9. Rajasthan	7.90	2.44
	10. Maharashtra	8.13	4.13
	11. Punjab	8.32	4.67
	12. Madhya Pradesh	8.89	6.07
7-10% (High)	13. Karnataka	10.18	6.00
	14. Andhra Pradesh	13.31	11.16
	15. Uttar Pradesh	14.81	20.20
	Other States	0.98	1.59
	All States	100.00	100.00

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iii) High Level States. There were five states, states which accounted for more than 10 per cent of leased out area in India. These were Andhra Pradesh, Karnataka, Madhya Pradesh, Punjab and Maharashtra. Of these states two were from Southern, one from Central and one from North Western India. Maharashtra State accounted highest proportion^{of} area with 13.63 per cent leased out area. All these states together had 59.39 per cent of total leased out area, but they accounted for only 38.54 per cent households leasing out in the country.

5.1.2.2 Inter-State Variations 1960-61.

In 1960-61, in Jammu & Kashmir, percentages of both the leased out area and households leasing out were the lowest. The highest share of leased out area was in Karnataka and the highest share of households leasing out was in Uttar Pradesh. In Low Level States, two were from Eastern India and two were from Western India. In Medium Level States two of the three States came from Eastern India. In high level states, two were from Southern India, one from Central India and one each from Northern and North Western India.

The position of different States in three categories is as under.

1) Low Level States: There were six States in this category: Jammu and Kashmir, Gujrat, Assam, Rajasthan, Kerala and Orissa. All these States together accounted for only

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10.76 per cent leased out area, and 13.49 per cent of households leasing out.

ii) Medium Level States. In medium group there were three states which include West Bengal, Bihar and Tamilnadu. Their shares of leased out area ranged in 5.83 - 6.00 per cent only. These States together contributed 17.81 per cent leased out area but accounted for 28.87 per cent households leasing out.

iii) High Level States: There were six states in this category Andhra Pradesh, Madhya Pradesh, Maharashtra, Punjab, Uttar Pradesh and Karnataka. The extreme states had their shares of leased out area of 10.64 and 14.33 per cent respectively. All these States accounted for as high as 70-69 per cent leased out area, but had only 57.63 per cent households leasing out.

5.1.2.3 Inter-State Variations 1970-71.

In 1970-71, interestingly Uttar Pradesh had the highest shares of both the leased out area and households leasing out. Jammu & Kashmir continued to share the least percentages of both the area leased out and households leasing out. In Low Level States, two were from Eastern India. In Medium Level States, two were from Eastern India, two were from Western India and one each from Central and North-Western India. In High level states, two of the three States were from Southern India and the other state was from Northern India (Uttar Pradesh).

The different states in the three levels of tenancy are as follows:

i) Low Level States. There were 5 states in this category: Jammu & Kashmir, Kerala, Assam, Gujarat and Orissa. The extreme states had shares; 0.25 and 3.99 per cent leased out area. All these states together contributed 9.74 per cent leased out area but had 13.41 per cent households leasing out.

ii) Medium Level States There were 7 states in this category; West Bengal, Tamil Nadu, Bihar, Rajasthan, Maharashtra, Punjab and Madhya Pradesh. Their shares of leased out area ranged in 5.03 - 8.89 per cent. All these states together contributed 50.98 per cent leased out area and accounted for 47.64 per cent Households leasing out.

iii) High Level States. There were 3 States in this category: Karnataka, Andhra Pradesh and Uttar Pradesh. Their shares of leased out area ranged in 10.18 - 14.81 per cent. These 3 states together had 38.30 per cent leased out area, with 37.36 per cent Households leasing out.

5.1.2.4 Changes in Period I (1953-54 to 1960-61) and Period II (1960-61 to 1970-71).

i) Changes in Period I: Between 1953-54 and 1960-61 the shares of leased out area had decreased in respect of eight states. These were Assam, Gujarat, Jammu & Kashmir, Madhya Pradesh, Maharashtra Punjab, Rajasthan and Tamilnadu, the decrease being sharp in case of Rajasthan. In the remain-

ing 7 states, the percentage shares increased and the increase was large only in Uttar Pradesh.

Considering the shifts, movement from one category to another over the period the area share of Bihar, West Bengal, Uttar Pradesh has increased by varying rate. While the share of Gujrat, Rajasthan has reduced during the period, the rest of the states remained where they were in 1953-54.

As regards the shares, in the Households leasing out, they have decreased in 8 states; seven states of the eight states (i.e except Assam), have also showed decline in leased out area. The decreases were somewhat sharp in Maharashtra, Madhya Pradesh and Punjab. In the remaining states the share of households leasing out has increased. There were Andhra Pradesh, Bihar, Karnataka, Kerala, Orissa, Uttar Pradesh West Bengal and Assam. In this group in the first six states the percentage of leased out area has increased over time.

ii) Changes in Period II (1960-61 and 1970-71) During the period of 1960-61 and 1970-71 the shares of leased out area have increased in 6 states: These were Andhra Pradesh, Assam, Bihar, Gujrat, Rajasthan, and Uttar Pradesh. The increases were sharp in Uttar Pradesh and Andhra Pradesh. The remaining 9 states have shown a decline in the area share, the decreases being somewhat sharp in case of Punjab, Maharashtra, Madhya Pradesh and Karnataka.

Taking the shifts between categories, it was observed that Rajasthan had shifted upward to Medium Level. While Madhya Pradesh, Maharashtra and Punjab had shifted downward towards middle level group. The rest of the states had retained their 1960-61 position.

As regards the Households leasing out, the share had increased in 7 states, five of the seven states had also experienced an increase in area share. The increase was quite sharp in Bihar state. In the remaining 8 states, in the households leasing out had decreased. These were: Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Punjab, Tamilnadu, West Bengal and Utter Pradesh. In this group first 7 states, had also shown decline in area share also.

5.1.3 Distribution of Percentage of Leased Out Area and Households Leasing Out - Farm-Size Analysis.

The NSS data is set for five farm-size categories. However the distributional aspect is considered on the basis of shares of Lower Farms and Higher Farms, for the sake of convenience. The Lower Farms are derived by adding the figures of Marginal and Small farmers and Higher Farms are derived by adding the figures of Medium and Large farmers. Since the objective is to bring out inter-state variations the States have been divided into three categories. These are:

- (a) States in which Lower classes leased out more than 40% leased out area.

- (b) States in which Higher classes leased out more than 40%.
- (c) States dominated by neither Lower nor Higher classes.

In this section we examined the variations in percentages of area leased out and house holds leasing out according to the farm size and noted the dominance of Lower or Higher farms in leasing out the proportion of area.

Further more, for greater insight, again, the states have been divided into sub-categories by the ranges of leased out area: The ranges are (i) 40-60%, (ii) 60-80% and (iii) greater than 80%. Detailed distribution is shown in Table III.

5.1.3.1. Distribution at All India Level.

At all India level in all the periods under study (1953-54, 1960-61 and 1970-71) the Higher Classes had dominated in leasing out the area. For example in 1953-54, 26.85 per cent Medium and Large farmers together leased out 71.81 per cent area. In 1960-61 such farmers formed 20.01 per cent, of total farms but leased out 58.47 per cent area. In 1970-71, these farmers accounted for only 13.61 per cent but leased out 44.44 per cent area. It may be mentioned that interestingly, the share of Medium and Large farmers had decreased both in area and holdings and whereas that of Marginal and small farmers had increased gradually over the period starting from 1953-54 to 1970-71.

5.1.3.2 Inter-State Variations 1953-54.

Looking at the state level picture in all the States Higher Farms had shown the domination in leasing out area

**Table-III Percentage of Leased out Area and Households Leasing-out
In Lower Farm Classes, Higher farm Classes and Semi Medium
Farm Class - 1953-54, 1960-61 & 1970-71.**

States	1953-54					
	% Area Leased-out			% Households Leasing-out		
	Lower Farm Classes	Higher Farm Classes	Semi Medium Class	Lower Farm Classes	Higher Farm Classes	Semi Medium Class
1) Andhra Pradesh	14.31	71.35	14.34	59.86	23.90	16.24
2) Assam	14.43	70.11	15.46	47.07	24.37	28.56
3) Bihar	30.04	51.29	18.67	70.35	15.06	14.39
4) Gujrat	6.93	83.19	9.88	36.12	45.96	17.92
5) Jammu & Kashmir	24.11.	62.84	3.65	60.98	19.51	19.51
6) Karnataka	9.76	78.37	11.87	44.22	36.30	19.48
7) Kerala	29.57	53.82	16.61	80.54	8.60	10.86
8) Madhya Pradesh	7.27	79.73	13.00	30.47	46.94	22.59
9) Maharashtra	8.09	81.55	10.36	39.26	41.69	19.05
10) Orissa	2.53	50.71	20.76	68.23	12.98	18.79
11) Punjab	7.87	78.86	13.27	39.06	39.22	21.72
12) Rajasthan	6.65	87.48	5.87	32.64	48.77	18.59
13) Tamilnadu	25.65	52.85	21.50	67.53	12.45	20.02
14) Uttar Pradesh	27.98	48.00	24.02	59.34	18.54	22.02
15) West Bengal	22.31	57.85	19.84	59.77	21.57	18.66
All India	13.63	71.81	14.16	53.96	26.85	19.19

Table-III

Percentage of Leased out Area and Households Leasing-out
in Lower-Farm Classes, Higher Farm Classes and Semi Medium
Farm Class - 1953-54, 1960-61 & 1970-71.

States	1960-61					
	% Area Leased-out			% Households Leasing-out		
	Lower Farm Classes	Higher Farm Classes	Semi Medium Class	Lower Farm Classes	Higher Farm Classes	Semi Medium Class
1) Andhra Pradesh	22.37	53.04	24.59	68.14	14.41	17.43
2) Assam	66.92	21.32	21.76	76.18	10.49	13.35
3) Bihar	24.11.	54.37	21.52	70.54	13.76	15.70
4) Gujrat	14.30	56.80	26.90	48.66	25.67	25.67
5) Jammu & Kashmir	25.19	43.75	31.06	58.06	12.91	29.03
6) Karnataka	11.37	63.39	25.24	51.90	25.11	22.99
7) Kerala	17.54	71.27	11.19	77.77	9.81	12.42
8) Madhya Pradesh	6.15	85.47	8.38	26.43	55.34	18.33
9) Maharashtra	6.35	77.55	16.10	29.74	43.54	26.42
10) Orissa	25.14	35.96	38.90	57.61	14.62	27.77
11) Punjab	13.43	66.42	20.15	37.71	36.77	25.52
12) Rajasthan	5.92	80.22	13.86	32.95	46.58	20.47
13) Tamilnadu	32.31	52.05	15.64	73.14	14.39	12.47
14) Uttar Pradesh	46.69	32.93	20.38	74.30	18.54	15.16
15) West Bengal	51.03	32.40	16.57	77.14	10.48	12.38
All India	21.65	57.47	19.86	62.18	20.01	17.81

**Table-III Percentage of Leased-out Area and Households Leasing-out
in Lower Farm Classes, Higher Farm Classes and Semi Medium
Farm Class - 1953-54, 1960-61 & 1970-71.**

States	1970-71					
	% Area Leased-out			% Households Leasing-out		
	Lower Farm Classes	Higher Farm Classes	Semi Medium Class	Lower Farm Classes	Higher Farm Classes	Semi Medium Class
1) Andhra Pradesh	31.13	46.69	22.18	73.50	11.19	15.31
2) Assam	48.89	16.78	34.33	68.78	6.55	24.67
3) Bihar	44.20	28.79	27.01	76.49	8.37	15.14
4) Gujarat	26.26	48.34	25.40	53.41	26.45	20.14
5) Jammu & Kashmir	75.52	17.75	6.73	71.28	16.27	12.45
6) Karnataka	30.35	44.13	25.52	57.37	19.80	22.83
7) Kerala	65.45	16.20	18.35	89.00	3.55	7.45
8) Madhya Pradesh	16.39	56.61	27.00	41.32	30.29	28.39
9) Maharashtra	19.02	45.01	35.97	47.02	14.29	38.69
10) Orissa	53.51	14.63	31.86	80.57	5.63	13.80
11) Punjab	16.09	57.50	26.41	49.64	27.95	22.41
12) Rajasthan	7.86	85.68	5.86	29.10	52.90	18.00
13) Tamilnadu	30.21	49.55	20.24	74.22	11.55	14.22
14) Uttar Pradesh	42.66	31.69	25.65	75.11	10.22	14.67
15) West Bengal	51.58	21.08	24.34	79.38	9.62	11.00
All India	30.78	44.44	24.78	66.85	13.61	17.54

Although the largest per cent of area was leased out by Higher farms. Considerable inter-State variations in the percentage share of higher farms were noticed. These aspects are more clearly brought in following analysis.

States with 40-60% Area Leased out by Higher Farms.

There were 6 states in this category, and these were Bihar, Kerala, Orissa, Tamilnadu, Uttar Pradesh and West Bengal.

States with 40 to 60 per cent of Leased Out Area.

States	% Area Leased out by Higher Farms	% Households Leasing out of Higher Farms
1. Bihar	51.29	15.06
2. Kerala	53.82	8.60
3. Orissa	50.71	12.98
4. Tamilnadu	52.85	12.45
5. Uttar Pradesh	48.00	18.54
6. West Bengal	57.85	21.57

From the above it is seen that share of Medium and Large farmers together in holdings ranges between 8-22 per cent, but their share in area leased out varies between 48-58 per cent. In these states, the Marginal and Small farmers accounted for nearly 60-80 per cent of holdings but contributed only 22-30 per cent area leased out.

States with 60-80% Area Leased Out by Higher Farms.

There were 6 states in this category, as shown below.

States with 60 to 80% of Leased Out Area.

State	% Area Leased out	% Households Leasing out
1. Andhra Pradesh	71.35	23.90
2. Assam	70.11	24.37
3. Jammu & Kashmir	62.84	19.51
4. Karnataka	78.37	36.30
5. Madhya Pradesh	79.73	46.94
6. Punjab	78.86	39.22

From the above it is seen that the first three states had 19-24 per cent of Medium and Large farmers, but together they accounted for 62 to 72 per cent leased out area. In the latter 3 states, such farmers formed 36 to 47 per cent and leased out 78 to 80 per cent leased out area. In the former three states, the Marginal and Small farmers accounted for 47- to 61 per cent, but leased out only 14 to 24 per cent area. In the latter 3 states, such farmers formed 30 to 45 per cent and leased out 7 to 10 per cent area.

States with Greater than 80% Area Leased Out.

There were three states in this category. These were

Gujrat, Maharashtra and Rajasthan, where Medium and large farmers accounted for more than 80 per cent leased out area.

States with Greater than 80 per cent
Area Leased Out

State	By Higher Farms	
	% Area Leased out	% H.Hs Leasing Out
1. Gujrat	83.19	45.96
2. Maharashtra	81.55	41.69
3. Rajasthan	87.48	48.77

In these states the per cent of households accounted is between 41.69 to 48.77 but they accounted for 83.19 per cent to 87.48 per cent of leased out area. In such states, the Marginal and small farmers together formed 32 to 40 per cent but leased out only 6 to 8 per cent of area.

5.1.3.3. Inter-State Variations 1960-61.

In 1960-61 the leasing out pattern has changed. There were 11 states dominated by Higher Forms. Among the remaining 4 states; Assam, Uttar Pradesh and West Bengal were dominated by Lower Forms. In Orissa, the area leased was spread among the Lower Farms and Semi-medium farm size group - with no clear domination either by Higher or Lower farms.

Leased Out Area Dominated by Lower Farms.

The states covered in the category are further subdivided into three groups depending on the percentages of area leased out. The results are as follows:

i) 40-60% Range. There were two states in which the per cent of area leased out by lower farms varies between 40 to 60. These were Uttar Pradesh and West Bengal. In these states, 74-77 per cent of Marginal and small farmers together leased out 46-51 per cent area. In these states the Medium and Large farmers together accounted for 10.5 per cent of holdings and leased out 32-33 per cent area.

ii) 60-80% range. There was only one state of Assam in this category. It leased out 66.92% of area accounted for by 76.18 per cent Marginal and small farmers. The Medium and Large farmers together accounted for 10.49 per cent of holdings but leased out 21.32 per cent area.

Leased Out Area Dominated by Higher Farms.

The level wise description of this type is given below.

i) 40-60% range. There were 5 states in this category and it includes Andhra Pradesh, Bihar, Gujrat, Jammu & Kashmir and Tamilnadu.

States with 40-60 per cent of Leased
Out Area

States	By Higher Farms	
	% Area Leased out	% Households Leasing Out
1. Andhra Pradesh	53.04	14.41
2. Bihar	54.37	13.76
3. Gujrat	58.82	25.67
4. Jammu & Kashmir	43.75	12.91
5. Tamilnadu	52.05	10.54

From the above, it is revealed that 10 to 15 per cent Medium and Large farmers together leased out 52 to 55 per cent area in Andhra Pradesh, Bihar and Tamilnadu. In Gujrat such farmers formed nearly 26 per cent and leased out 59 per cent of area. In Jammu and Kashmir, such farmers formed nearly 13 per cent and leased out nearly 44 per cent area. In all these states (except Gujrat), the Marginal and small farmers accounted for 58-73 per cent and leased out 22-32 per cent of area only. In Gujrat, such farmers formed nearly 49 per cent and leased out 14.30 per cent of area only. The differentiation is glaring.

ii) 60-80 per cent range. There were 4 states in this category. These were Karnataka, Kerala, Maharashtra and Punjab.

<u>By Higher Farms</u>		
States	% Area Leased out	% Household Leasing out
1. Karnataka	63.39	25.11
2. Kerala	71.27	9.81
3. Maharashtra	77.55	43.84
4. Punjab	66.42	36.77

In these States the Medium and Large farmers together formed 9.81 - 43.84 per cent and leased out as high as 63.4 - 77.6 per cent area. In these states Marginal and small farmers together formed 29.7 - 77.8 per cent and accounted for 6.3 - 17.6 per cent leased out area only.

(iii) Greater Than 80 Per cent Range. There were two states in which more than 80 per cent of area was leased out by large farmers. These states were Madhya Pradesh and Rajasthan. In these states, the Medium and Large farmers together accounted for only 46-55 per cent but leased out as high as 80-85.5 per cent area. The Marginal and small farmers accounted for 26-33 per cent and leased out 5-6 per cent area only.

c) Leased Out Area Dominated by Middle Level Farm Groups.

In 1960-61 Orissa state has revealed a mixed situation. In this state 28 per cent semi Medium farmers leased out 39 per cent area. And 14.6 per cent Medium and Large farmers together leased out 36 per cent area. So share in the area leased out was shared by middle farm size group.

5.1.3.4 Inter State Variations 1970-71.

In 1970-71 in seven states the leasing out pattern was dominated by Lower Farms (Assam, Bihar, Jammu & Kashmir, Kerala, Orissa, Uttar Pradesh and West Bengal) and in the remaining 8 states, the Higher Farms had dominated the leasing out pattern.

a) States dominated by Lower Farms.

Let us first describe the situation of the States where lower classes dominated.

1) 40-60% range. There were 5 states in this category. These were Assam, Bihar Orissa, Uttar Pradesh and West Bengal.

In all these states, Marginal and small farmers together formed 68 to 81 per cent and leased out 42 to 54 per cent area. In Assam and Orissa, the Medium and Large farmers together accounted for only 5 to 7 per cent and leased out 14 to 17 per cent area. In other states, such farmers formed 8 to 10 per cent and leased out 24 to 32 per cent area.

ii) 60-80% range. There were 2 states in this category: Jammu and Kashmir and Kerala.

In these states, 71 to 89 per cent Marginal and small farmers together leased out 65.5 - 75.5 per cent area. In Kerala Medium and Large farmers together formed only 3.6 per cent and leased out 16.2 per cent area and in Jammu and Kashmir such farmers accounted for 16.6 per cent and leased out 17.8 per cent area.

b) States Dominated by Higher Classes.

1) 40-60% range : There were 7 states in this sub-category, viz; Andhra Pradesh, Gujrat, Karnataka, Madhya Pradesh, Maharashtra, Punjab and Tamilnadu.

States	<u>By Higher Farms</u>	
	% Area Leased out	% Households Leasing out
1. Andhra Pradesh	46.69	11.19
2. Gujrat	48.34	26.45
3. Karnataka	44.13	19.80
4. Madhya Pradesh	56.61	30.29
5. Maharashtra	45.01	14.29
6. Punjab	57.50	27.95
7. Tamilnadu	49.55	11.55

In all these states, the Medium and Large farmers together accounted for 11.00 - 33.30 per cent and leased out 44 to 58 per cent area. In Andhra Pradesh, Gujrat, Karnataka, Tamilnadu, the Marginal and small farmers together accounted for 53-74 per cent but leased out only 26 to 31 per cent area. In Madhya Pradesh, Maharashtra and Punjab, such farmers formed 41 to 50 per cent and leased out only 16 to 19 per cent area.

iii) Greater than 80%.

There was only one state in this category, viz; Rajasthan. In Rajasthan nearly 53 per cent Medium and Large farmers

leased out 86 per cent area. Further 29.1 per cent Marginal and small farmers together leased out only 7.9 per cent area. The differentiation was really very high.

5.1.3.5 Changes^a in Period I (1953-54 to 1960-61) and Period II (1960-61 to 1970-71)

i) Changes in Period I (1953-54 and 1960-61)

In the period I (1953-54) all the states were dominated by Medium and Large farmers in leased out area. In 1960-61 the situation has changed and in four States Marginal and Small farmers leased out more area than the Higher Farms. These States were Assam, Uttar Pradesh and West Bengal and Orissa. So there was a gradual shift in favour of small farmers.

ii) Changes in Period II (1960-61 - 1970-71).

In 1953-54 not a single State was dominated by Marginal and Small farmers. However in 1960-61 the Marginal and small farmers had domination in four states. But by 1970-71 altogether in 7 states Marginal and small farmers leased out a larger area compared to large farmers. They were: Assam, Bihar, Jammu & Kashmir, Kerala, Orissa, Uttar Pradesh and West Bengal. Many of them belonged to Eastern India and Northern India. So over time the proportion of Small and Marginal farmers in leasing out area and holdings has increased quite substantially.

^a Changes in percentage of Households leasing out was left out.

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PART-B

5.2 Leasing in Pattern in Operational Holdings.

After having examined the inter-State variations in leasing out area and holdings in this Section we discuss the variations in leased in area and holdings at India and State levels. For the sake of convenience the discussion is set into five sections. The first section deals with inter-state variations in the percentages of leased-in area and tenant holdings and pure tenant holdings to total operational Holdings. The second section deals with shares of leased-in area and tenant holdings of the States in the total area leased-in and the total tenant holdings in India. The third section deals with the variations in the distribution of area leased-in and tenant holdings, in India and States farm size wise. And the fourth section deals with percentage of pure tenant holdings in total tenant holdings.

5.2.1 Aggregate Percentages of Leased-in Area, All Tenant and Pure Tenant Holdings in India and States.

Table IV shows the percentage of area and holdings for India and different states.

To bring out the inter-state variations, the States have been grouped into four categories, depending on the ranges of percentage of leased-in area. The ranges are as follows:

- 1) Low tenancy states : less than 5% leased in area

- 2) Medium tenancy states: 5-10% leased in area.
- 3) High tenancy states : 10-15% leased in area
- 4) Very High tenancy states: more than 15% leased in area.

5.2.1.1 All India

The following shows the percentage of leased in area and tenant holdings in India for three periods.

Year	% Area leased -in	% All Tenant Holdings	% Pure Tenant Holdings
1953-54	20.34	39.84	16.94
1960-61	10.70	23.52	5.14
1970-71	10.57	25.68	3.86

It revealed that the percentage of leased in area has decreased drastically from 20.34 per cent in 1953-54 to 10.70 per cent in 1960-61. Between 1960-61 and 1970-71 the proportion remained almost constant. The percentage of All tenant holdings has also decreased from 39.84 per cent in 1953-54 to 23.52 per cent in 1960-61. In 1970-71 there was a marginal increase from 23.52 per cent in 1960-61 to 25.68 in 1970-71. Similarly the Pure tenant holdings has also shown decrease through out the periods under study. Since between 1960-61 and 1970-71, the percentage of All tenant holdings increased and the increase was accompanied by decrease in pure tenant holdings eventually the increase

in the total tenant was entirely due to rise in the percentages of mixed holdings.

5.2.1.2 Inter-state Variations - 1953-54

Coming to the Inter-state variations in leased in area the Table IV revealed that no state had low and medium range leased in area. All the States indicated either higher or very high level of tenancy - ranging between 10.00 per cent to 43.54 per cent. Below we discuss the distribution of states according to the level leased in area.

High Tenancy States:

Of the total states in India only three states had shown high level tenancy ranging between 11.38 per cent to 42.58; rest of the states had very high level area under tenancy.

States with High Tenancy

State	% Area Leased in	% All Tenant Holdings	% Pure Tenant Holdings
1. Uttar Pradesh	11.38	27.20	5.83
2. Bihar	12.39	36.21	15.08
3. Orissa	12.58	34.10	10.33

Uttar Pradesh had the lowest percentage of leased-in area among the states in India. In this group, Orissa had the highest percentage of leased-in area (12.58 per

Table-IV Percentages of Leased-in Area, total tenant holdings and Pure tenant holdings, 1953-54, 1960-61, 1970-71.

States	% Leased in Area in total operated area			% Tenant Holdings in total operationed Holdings.			% Pure tenant Holdings in total operationed Holdings.		
	1953-54	1960-61	1970-71	1953-54	1960-61	1970-71	1953-54	1960-61	1970-71
1) Andhra Pradesh	18.60	9.15	9.01	32.61	18.52	21.66	11.21	3.04	0.71
2) Assam	43.54	15.36	19.69	59.08	30.72	24.73	38.99	11.66	16.90
3) Bihar	12.39	10.25	14.50	36.21	25.59	39.78	15.08	4.00	0.73
4) Gujarat	17.07	5.83	3.91	33.90	14.08	9.32	15.64	3.29	0.69
5) Jammu & Kashmir	22.17	14.13	8.06	37.21	-	14.22	15.30	-	0.44
6) Karnataka	20.19	18.16	15.90	37.88	31.10	28.81	13.73	7.83	5.98
7) Kerala	23.63	15.30	8.59	46.54	-	17.32	24.62	-	7.39
8) Madhya Pradesh	19.27	6.40	7.46	58.93	-	21.05	22.21	-	5.31
9) Maharashtra	21.97	8.74	6.15	41.16	-	11.97	15.62	-	0.77
10) Orissa	12.58	10.75	13.46	34.10	29.80	32.24	10.33	3.92	4.55
11) Punjab	39.78	35.39	25.84	53.27	48.69	45.28	21.95	12.87	5.04
12) Rajasthan	20.92	4.87	5.26	32.17	9.76	8.93	15.50	4.17	0.62
13) Tamilnadu	27.53	16.55	13.07	54.47	32.35	31.67	33.58	5.05	4.30
14) Uttar Pradesh	11.38	8.06	13.01	27.20	20.98	27.84	5.83	2.62	1.36
15) West Bengal	25.43	17.65	18.73	41.49	29.00	34.56	21.20	7.07	3.28
All India	20.34	10.70	10.57	39.84	23.52	25.68	16.94	5.14	3.86

*This percentage sub-tracted from 100, gives, the percenta-ge Pure Owner Holdings.

**This percent sub-tracted from the percentage of All tenant Holdings gives the percentage of Mixed Tenant Holdings.

cent). However Bihar had the highest percentages of both Tenant Holdings and Pure tenant Holdings, and area equal to Orissa State. Incidentally it may be noted that these states continued to suffer from remnants of Zamindari System.

iv) Very High Tenancy States:

There were 12 states in this category in which per cent of leased in area varied between 17.07 per cent for Gujrat to 43.54 per cent for Assam as shown in the statement. The proportion of leased in area was highest in Assam State (43.54) in 1953-54. The per cent of holdings leasing in

High
State with Very Tenancy - 1953-54

States	% Area Leased in	% All Tenant Holdings	% Pure Tenant Holdings
1. Gujarat	17.07	33.90	15.64
2. Andhra Pradesh	18.60	32.61	11.21
3. Madhya Pradesh	19.27	58.93	22.21
4. Karnataka	20.19	37.88	13.73
5. Rajasthan	20.92	32.17	15.50
6. Maharashtra	21.97	41.16	15.67
7. Jammu & Kashmir	22.47	37.21	15.30
8. Kerala	23.63	46.54	24.62
9. West Bengal	25.43	41.49	21.20
10. Tamilnadu	27.53	54.47	33.58
11. Punjab	39.78	53.27	21.95
12. Assam	43.54	59.08	38.99

both total as well as pure holdings was also highest in Assam. The proportion of leased in holdings was comparatively high in Madhya Pradesh, Tamil Nadu and Punjab and lower in Rajasthan, Andhra Pradesh and Gujarat

5.2.1.3 Inter State Variations: 1960-61.

In 1960-61 the per cent of area under tenancy has come down to 10.70 per cent. The decline in leased in area was shared by many States and as a result some states showed low and medium range tenancy. Figures showed great variations among the states. The per cent leased in area varied between 4.87 per cent for Rajasthan to 35.39 per cent for Punjab. The regional pattern was as follows:

1) Low Tenancy States.

Only one state had a low level of tenancy (Rajasthan). The leased-in area in this State was only 4.87 per cent. The percentages of tenant holdings and Pure tenant holdings were 9.76 and 4.17 per cent respectively.

ii) Medium Tenancy States.

There were five states in medium category as shown in Statement. These were Uttar Pradesh, Maharashtra, Madhya Pradesh, Gujrat and Andhra Pradesh. Among these five states, two states came from Western India and one state from Central India and one from Northern India.

States with Medium Level Leased in Area

State	% Area leased in	% All tenant Holding	% Pure Tenant Holdings
1. Gujarat	5.83	14.08	3.29
2. Madhya Pradesh	6.40	-	=
3. Uttar Pradesh	8.06	20.98	2.62
4. Maharashtra	8.74	-	-
5. Andhra Pradesh	9.15	18.52	3.04

As regards tenants holdings, the data is not available for Madhya Pradesh and Maharashtra. In remaining three states, the percentage of tenant holdings ranged in 14 to 21 per cent and of Pure tenant holdings ranged in 2.6 - 3.3 per cent.

iii) High Tenancy States.

There were three states in this category as shown in the Statement. These were Bihar, Orissa and Jammu & Kashmir.

States with High Leased in Area.

States	% Area Leased-in	% All Tenant Holdings	% Pure Tenant Holdings
1. Bihar	10.25	25.59	4.00
2. Orissa	10.75	27.81	3.92
3. Jammu & Kashmir	14.13	-	-

The percentage of Leased-in ^{area} in Jammu & Kashmir was somewhat higher than in Bihar and Orissa States. As regards holdings, the percentages of the total tenant as well as pure tenant holdings were more or less same for Bihar and Orissa. However the proportion of total holdings was quite higher than pure holdings for both the States. The holdings data was not available for Jammu & Kashmir.

iv) Very High Tenancy States.

Coming to the last category, six states had shown very high level leased-in area ranging between 15.30 per cent for Kerala to 35.39 for Punjab.

States with High Level Tenancy

States	% Area Leased-in	% All Tenant Holdings	% Pure Tenant Holdings
1. Kerala	15.30	-	-
2. Assam	15.36	30.72	11.66
3. Tamilnadu	16.55	32.35	5.05
4. West Bengal	17.65	29.00	7.07
5. Karnataka	18.16	31.10	7.83
6. Punjab	35.39	48.69	12.87

However the percentage of area was distinctly higher in Punjab state - it being 35.39 per cent. It was quite high as compared to other five States where percentages range between 15.30 to 18.16 only.

Tenant holdings data for Kerala is not available. In other states, except in Punjab, the percentage of tenant holdings did not differ much, its being in the range of 29 to 32 per cent only. It was as high ^{as} 49 per cent for Punjab. The percentage of Pure tenant holdings was high for Punjab and Kerala and low for other States.

5.2.1.4 Inter-State Variations 1970-71.

As observed earlier, at least at all India level there was no change in the percentage of area leased-in, between 1960-61 and 1970-71. However, the various States had experienced a change in the proportion of leased-in area.

The State-wise pattern showed the following distribution.

i) Low Level Tenancy.

There was only one State with low level tenancy (Gujrat). In this state the leased-in area was only 3.91 per cent. The percentage of tenant holdings and pure tenant holdings was 9.32 and 0.69 per cent respectively.

ii) Medium Tenancy States.

There were six states in this category as shown in the Statement. Variations between the States was not quite large. As compared to other States, the percentage of tenant holdings was higher in Madhya Pradesh and Andhra Pradesh. The proportion of Pure tenant holdings was quite less in Rajasthan, Andhra Pradesh, Maharashtra and Jammu and Kashmir.

States with Medium Level Tenancy

States	% Area Leased-in	% All Tenants Holdings	% Pure Tenant Holdings
1. Rajasthan	5.26	8.93	0.62
2. Maharashtra	6.15	11.97	0.77
3. Madhya Pradesh	7.46	21.05	5.51
4. Jammu & Kashmir	8.06	14.22	0.44
5. Kerala	8.59	17.32	7.39
6. Andhra Pradesh	9.01	21.66	0.71

iii) High Tenancy States.

There were four states in high category, the percentage

of area ranging between 13.01 to 14.50. Thus the range in percentage of leased-in area was quite small for these States.

States with High Tenancy

States	% Area Leased-in	% All Tenant Holdings	% Pure Tenant Holdings
1. Uttar Pradesh	13.01	27.84	1.56
2. Tamilnadu	13.07	31.67	4.30
3. Orissa	13.46	32.24	4.55
4. Bihar	14.50	39.78	0.73

Coming to the holdings, high percentage of tenant holdings was found in Bihar and low was in Uttar Pradesh. The percentage of Pure tenant holdings was lower in those two states and slightly more in other states.

iv) Very High Tenancy States.

There were four States with a very high level of leased-in area. As is clear from the Statement, in the first three States, the percentage varied between 15.9 to 19.7 per cent only. However, in Punjab the percentage of leased-in area was the highest (25.84).

States with Very High Tenancy

State	% Area leased in	% All Tenant holdings	% Pure Tenant holdings
1. Karnataka	15.90	28.81	5.98
2. West Bengal	18.73	34.56	3.28
3. Assam	19.69	24.73	16.90
4. Punjab	25.84	45.28	5.04

The proportion of tenant holdings was also highest in Punjab, but the percentage of Pure tenant holdings was small (5.04), thus giving scope for the higher percentage of Mixed tenant holdings. The other two states namely West Bengal and Karnataka had low percentages of Pure tenant holdings. But Assam had highest percent of pure tenant holdings, though the per cent of tenant holdings was less than in other States.

5.2.1.5 Changes in Period I and Period II.

Changes in Period I (1953-54 to 1960-61)

At all India level, there was a decline in the per cent of leased in area from 20.34 per cent to 10.70 per cent in 1960-61. The decrease in leased in area was experienced by all States in India. However the fall was quite sharp in 10 states, viz Andhra Pradesh, Assam, Gujarat, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Tamilnadu and West Bengal. If inter-range shifts in the levels of leased-in area are considered, it is found that : Uttar Pradesh, Rajasthan

Andhra Pradesh, Gujrat, Madhya Pradesh and Maharashtra shifted to lower categories while Jammu and Kashmir showed an upward movement to high tenancy category.

Over all declining trend was also noticed for percentages of tenant holdings and Pure tenant holdings. Thus both in terms of area leased-in and holdings the magnitude of tenancy has reduced between 1953-54 and 1960-61 probably due to land reform measures.

Yet it may be pointed out that although the data on leased-in area is fairly reliable; the sharp decreases in many states, in a span of seven years period (between 1953-64 and 1960-61), leaves some scope for doubt that there might have been some under-reporting. Such under-reporting was possible by recording the tenants as agricultural labourers on the same lands, i.e the lands cultivated by tenants. This often happen because of the weak bargaining position of the landless and poor tenants.

11) Changes in Period II (1960-61 and 1970-71)

At all India level often the percentage area leased-in and holdings leasing-in had remained more or less constant. However, at the State level there were wide variations. For example, the percentage of leased-in area increased in 6 states, these being Assam, Bihar, Orissa, Madhya Pradesh, Rajasthan and West Bengal. The increases were sharp only in the first three states. In the remaining nine states, the

leased-in area had decreased. Except in Andhra Pradesh, the decreases were substantial in all other states.

Same trend was evident in the proportion of tenant holdings which had decreased in 6 states. These states were Assam, Gujrat, Karnataka, Punjab, Rajasthan and Tamilnadu; while in five states of Andhra Pradesh, Bihar, Orissa, Uttar Pradesh and West Bengal the percentage of tenant holdings increased. Of the eleven states (for which data was available), with the exception of Assam and Orissa, the percentage of pure tenant holdings had decreased in 9 states.

iii) Changes in 1970-71 over 1953-54.

Coming to changes between the full period from 1953-54 and 1970-71 it is observed that the percentage of leased-in area had decreased in all States, except Orissa. The percentage of tenant and pure tenant holdings had also decreased in all States, except Bihar and Uttar Pradesh. Thus the results clearly suggest that the tenancy in India had been on the decline.

5.2.2. Percentage Shares of Leased-in Area and Tenant Holdings in the All India.

As observed earlier one more way of looking at inter-state variations is to see the percentage share of area and holdings of states in total area and holdings in India. This would bring out the spatial cocentration of tenancy in India.

The adequate data is available for only two points of time viz; 1953-54 and 1970-71. Table V gives the percentage share of states in the total area and holdings in India. To derive the regional pattern the States have been divided into 3 categories (depending on the per cent share in area leased in) i) The Low level States (< 5%), ii) the Medium Level States (5-10%) and (iii) the High Level States (> 10%). The percentages of tenant holdings have also been considered conveniently.

5.2.2.1 Inter-State Variations 1953-54.

The 1953-54 data indicated wide variations in the percentage share of area and holdings. The proportion of share of leased-in area varied from 0.53 for Jammu & Kashmir to 13.04 per cent for Maharashtra. Jammu & Kashmir had lowest figures in area and holdings. Maharashtra had the highest share in leased-in area while Tamilnadu had the highest share in tenant holdings. The State-wise pattern is discussed below.

1) Low Level States.

There were 5 states in this category: Jammu and Kashmir, Kerala, Orissa, Bihar and West Bengal. The proportion was lowest for Jammu and Kashmir. All these States together accounted for 26.59 per cent of tenant holding but contributed 11.71 per cent leased-in area only.

ii) Medium Level States:

There were 6 states in this category. The States were

**Table- V: Shares of Leased-in Area and tenant holdings
in all India level, 1953-54 and 1970-71**

Range of Share of Leased in Area	1953-54			1970-71		
	States	% share of leased in Area	% share of all tenant holdings	States	% share of leased in area	% share of All tenants Holdings.
< 5% (Low)	Jammu & Kashmir	0.53	0.74	Jammu & Kashmir	0.39	0.59
	Kerala	0.71	2.52	Kerala	0.74	2.66
	Orissa	2.20	4.47	Gujrat	2.52	1.49
	Bihar	3.98	10.99	Assam	2.96	2.62
	West Bengal	4.29	7.87	Orissa	4.22	6.67
5-10% (Medium)				Tamilnadu	4.70	7.30
	Assam	5.36	4.76	Rajasthan	5.36	1.97
	Gujrat	5.61	2.69	West Bengal	6.04	9.03
	Tamilnadu	6.61	14.59	Andhra Pradesh	6.91	6.55
	Uttar Pradesh	6.86	12.98	Maharashtra	8.32	3.82
	Andhra Pradesh	7.20	5.77	Bihar	8.82	17.54
	Karnataka	8.36	5.61	Punjab	9.73	3.90
7 10% (High)				Madhya Pradesh	9.90	7.29
	Punjab	10.30	4.31	Karnataka	11.62	5.98
	Rajasthan	11.39	3.40	Uttar Pradesh	16.82	21.02
	Madhya Pradesh	11.82	10.80			
	Maharashtra	13.04	7.27			
	Other States	1.74	1.23		0.95	1.65
	All India	100.00	100.00		100.00	100.00

Assam, Gujarat, Tamil Nadu, Uttar Pradesh, Andhra Pradesh and Karnataka. The percentage share of leased-in area ranged in 5.36 to 8.36 per cent only. In the two states, Tamilnadu and Uttar Pradesh the percentage of Tenant holdings was high and in the remaining States it was comparatively less. All these States accounted for 46.40 per cent of holdings but had 40.00 per cent of area.

111) High Level States:

In high level category there were four states: Punjab, Rajasthan, Madhya Pradesh and Maharashtra. The percentage leased-in area ranged in 10.3 - 13.04 per cent. The per cent of tenant holdings was relatively less in Punjab and Rajasthan and high in Madhya Pradesh and Maharashtra. All these states contributed 25.78 per cent of tenant holdings accounted for 46.55 per cent leased-in area.

5.2.2.2 Inter-State Variations 1970-71.

In 1970-71, also, we noticed wide variations in the percentage shares of area and holdings. The area shares varied from the lowest figure of 0.39 per cent for Jammu & Kashmir to the highest figure of 16.82 per cent for Uttar Pradesh. There were six, seven, and two States in Low, Medium and High categories respectively. Nearly fifty per cent of the States fall in Medium level category. The category wise pattern is given below:

1) Low Level States.

Six States which include Kashmir, Kerala, Gujarat, Assam, Orissa and Tamilnadu have low share in total leased-in area. The percentage of leased-in area in Jammu and Kashmir and Kerala was quite less. While it was relatively high in Orissa and Tamil Nadu. In the last two states, the percentage of tenant holdings was higher. All these States together accounted for 22.90 per cent holdings but had accounted for only 16.48 per cent of leased in area.

ii) Medium Level States.

There were 7 states in this category. These were Rajasthan, West Bengal, Andhra Pradesh, Maharashtra, Bihar, Punjab and Madhya Pradesh. The percentage leased-in area was the lowest in Rajasthan and the highest in Madhya Pradesh. The per cent share of holdings was comparatively high in Bihar and West Bengal. Seven States together contributed 50.10 per cent tenant holdings and had nearly same amount of area (55.08%)

iii) High Level States:

Karnataka and Uttar Pradesh had a high share in leased-in area. These two states together contributed 27.00 per cent holdings and had 28.44 per cent leased-in area.

5.2.2.3. Changes Between 1953-54 - 1970-71.

Coming to the change in the per cent shares between 1953-54 and 1970-71 analysis revealed mixed results.

The percentage shares of Leased-in area had increased in 6 states. These were Bihar, Karnataka, Kerala, Orissa, Uttar Pradesh and West Bengal. The increase was quite sharp in case of Uttar Pradesh (6.86 - 16.82 per cent) and in Bihar (3.98 - 8.82 per cent). In nine other states, the per cent shares had decreased and it was high only in Rajasthan (11.39 - 5.36 per cent)

As regards per cent shares of tenant holdings, they had increased in 7 states viz; Andhra Pradesh, Bihar, Karnataka, Kerala, Orissa, Uttar Pradesh and West Bengal. The increases being quite large for Uttar Pradesh (12.78 - 21.02 per cent) and Bihar (10.99 - 17.54 per cent). In the remaining 8 states, the per cent shares had decreased between these periods.

5.2.3 Inter State Variations, Percentages of Leased-in Area and Tenant Holdings - Farm Size Analysis.

In this Section the main purpose is to bring out the inter-State variations in leased in area and holdings by farm-size wise. In other words for inter-state variations (as in case of leased out area) the intention is to note the dominance of different farm size groups in leasing-in the area for cultivation. N.S.S. has provided the data for several farm size categories, however for the purpose of convenience, the states have been divided into three categories:

- a) States in which Lower Farm classes (Marginal and small farmers together) Leased-in more than 40% Leased-in area.
- b) States in which Higher Farm classes (Medium and Large farmers together) Leased-in more than 40% Leased -in area.
- c) States dominated by neither category.

Further in order to get some insight into the variations the States have been divided into sub-categories based on the ranges of leased-in area; (i) 40-60 per cent leased in area (ii) 60-80 per cent leased in area and (iii) area leased in greater than 80%. The detailed classwise distribution is shown in Table VI.

5.2.3.1 All India Level Distribution.

In 1953-54, the Higher classes dominated in All India Level. The Medium and Large farmers together formed only 16.13 per cent of the holdings but leased-in 60.90 per cent area. Although the Lower classes (Marginal and small farmers) accounted for 67.77 per cent of total holdings, they leased-in only 19.76 per cent area. Thus the differentiation among the tenant holdings in leasing in area was very high.

In 1970-71, the leasing-in pattern has changed and at least the domination of Medium and Large farmers in leasing-in area has reduced. It seems, although the inequalities

Table- VI: Percentages of Leased-in Area and All tenant holdings in Lower and Higher farm classes and Semi-medium farmers class.1953-54.

States	% Leased-in Area			% All Tenant Holdings		
	Lower farm classes	Higher farm classes	Semi-Medium Class	Lower farm Classes	Higher farm classes	Semi-medium class
1. Andhra Pradesh	16.82	63.28	19.90	62.69	18.50	18.81
2. Assam	32.15	39.34	28.51	69.73	9.20	21.07
3. Bihar	55.77	18.21	26.02	84.75	4.72	10.53
4. Gujrat	8.83	77.18	13.99	48.28	32.87	18.85
5. Jammu & Kashmir	46.30	10.96	42.74	71.79	3.68	24.53
6. Karnataka	12.57	70.16	17.27	52.91	25.67	21.42
7. Kerala	53.17	26.71	20.12	92.22	2.90	41.88
8. Madhya Pradesh	7.19	77.65	14.38	47.92	32.70	19.38
9. Maharashtra	8.74	78.73	12.53	49.35	32.47	18.18
10. Orissa	39.82	31.67	28.49	74.76	8.06	17.18
11. Punjab	5.77	76.69	17.54	35.70	41.31	22.99
12. Rajasthan	5.29	83.95	10.76	33.84	44.55	21.61
13. Tamilnadu	41.38	28.80	29.82	84.62	4.41	10.97
13. Uttar Pradesh	46.44	26.84	26.70	76.81	7.48	15.71
15. West Bengal	46.06	44.99	38.95	82.15	3.48	14.37
All India	19.76	60.90	19.34	67.77	16.13	16.10

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Table -VI: Percentages of Leased-in Area and All tenant holdings in Lower and Higher farm classes and Semi-Medium farmers class 1970-71

States	% Leased-in Area			% All Tenant Holdings		
	Lower farm classes	Higher farm classes	Semi-Medium class	Lower farm classes	Higher farm classes	Semi-medium class
1. Andhra Pradesh	27.57	46.69	25.74	63.51	15.46	21.03
2. Assam	70.19	4.80	25.01	80.23	3.33	16.44
3. Bihar	69.56	9.54	20.90	86.04	3.18	10.78
4. Gujrat	11.18	64.91	23.91	41.36	26.28	32.36
5. Jammu & Kashmir	44.09	17.52	38.39	65.39	8.40	26.21
6. Karnataka	19.54	62.72	19.74	46.33	29.42	24.25
7. Kerala	69.14	12.94	17.92	93.31	1.81	4.88
8. Madhya Pradesh	21.84	53.74	24.42	54.68	23.92	21.40
9. Maharashtra	14.15	63.62	22.23	48.96	26.76	24.28
10. Orissa	56.51	16.64	26.85	80.62	4.65	14.73
11. Punjab	10.82	58.54	30.64	25.74	35.90	38.36
12. Rajasthan	7.74	70.13	22.13	28.25	40.61	31.14
13. Tamilnadu	57.59	14.27	28.14	84.63	2.45	12.92
14. Uttar Pradesh	51.33	19.35	29.32	79.41	4.63	15.96
15. West Bengal	71.34	4.59	24.07	87.41	1.35	11.24
All India	36.95	38.06	24.99	72.41	10.55	17.04

still persist, leasing-in area has reasonably spread out in all classes. The tenant holdings in Lower classes formed 72.41 per cent and leased-in 36.95 per cent of area and Higher classes formed only 10.55 per cent, but leased-in 38.06 per cent of leased-in area. Further 17.04 per cent Semi-Medium holdings leased-in nearly 25 per cent area. Thus more than 60 per cent area leased-in was in the Lower classes and Semi Medium holdings. This is, just equal to the Medium and large farmers position in 1953-54. This indicates that the domination of Higher classes has considerably reduced.

5.2.3.2 Inter-State Variations 1953-54.

Let us examine the Statewise variations in area leased-in by farm-size.

a) States Dominated by Lower Farm Classes.

There were six States wherein the Lower farms leased-in proportionately more area than. Higher farms. These states were Tamilnadu, West Bengal, Jammu & Kashmir, Uttar Pradesh, Kerala and Bihar. In all these States, 40-60 per cent of leased-in area was cultivated by small and Marginal farmers in 1953-54.

The Statement revealed that in these States, Marginal and small farmers together accounted for 41.4 to 55.8 per cent leased-in area. But the percentage of tenant holdings also was quite high. It varied from a minimum of 71.79 per cent for Jammu & Kashmir to 92.22 per cent for Kerala.

States	In Lower Classes	
	% Area Leased in	% All Tenant Holdings
1. Tamilnadu	41.38	84.62
2. West Bengal	46.06	82.15
3. Jammu & Kashmir	46.30	71.79
4. Uttar Pradesh	46.46	76.81
5. Kerala	53.17	92.22
6. Bihar	55.77	84.75

b) States Dominated by Higher Classes.

There were seven states wherein the large percentage of area was leased-in by Large and Medium farmers. Those States were Andhra Pradesh, Karnataka, Punjab, Gujrat, Madhya Pradesh, Maharashtra and Rajasthan. There was not a single State in the range of 40-60 per cent leased-in area. All the states had the percentages of leased-in area above 60 per cent. The distribution of States in 60 to 80 per cent and above 80 per cent ranges is discussed below.

States with 60 to 80 per cent leased-in area.

Six states fall in this category, as shown in the Statement

States	In higher classes	
	% Area leased-in	% All-tenant Holdings
1. Andhra Pradesh	63.28	18.50
2. Karnataka	70.16	25.67
3. Punjab	76.69	41.31
4. Gujarat	77.18	32.87
5. Madhya Pradesh	77.65	32.70
6. Maharashtra	78.73	32.47

In these States 63.28 per cent to 78.73 per cent of area was leased-in by Large and Medium farmers in 1953-54. In case of holdings, those farmers accounted for 18.50 to 41.31 per cent. Punjab had the highest share and the lowest was found in Andhra Pradesh in the holdings.

States with Greater than 80% Leased-in Area.

Rajasthan was the only one State wherein more than 80 per cent of leased in area was shared by big and middle farmers.

Tenant holdings in Higher classes accounted for 44.55 per cent, but leased-in 83.95 per cent area. Alternatively the per cent of holdings in lower classes accounted for 33.8 per cent but had only 5.3 per cent leased-in area. Thus, the differentiation in this state was quite glaring.

c) States Dominated by Middle Range Farms:

In Assam and Orissa States the predominance of Higher or Lower farms was not quite clear. For instance in Assam, 39.34 per cent area was leased-in by Higher classes, and another 32.15 per cent leased-in area was shared by marginal and small farmers, so little less than 30 per cent of leased in area was leased in by Semi-Medium farmers. However if we compare the percentage shares of area with holdings, the Higher farm classes has an edge over the Lower farm classes. In Orissa 39.82, 31.67 and 28.51 per cent area was shared by Lower, Higher and Semi-Medium farms respectively. However in both the States the percentage holdings in Higher farms was less than 10 per cent and in Lower farms it was 70 per cent or more. As such the differentiation was high, though definitionally Higher farms had no dominance. Even then, leased-in area was well spread among the three farm-size groups. Further the small farms in Orissa had an upper hand in leased-in area when compared to their position in Assam.

5.2.3.3. Inter-State Variations 1970-71.

In 1970-71, there were some changes in the relative position of the States and mostly the change was in favour of small farms.

a) States Dominated by Lower Farm Classes:

There were 8 states in this category. Of these, in four States, 40 to 60 per cent of leased-in area was shared by

Marginal and Small farmers and in other four states, the same farmers shared 60-80 per cent leased-in area.

States with 40-60 per cent Leased-in Area.

The four states, wherein 40 to 60 per cent of total leased-in area was shared by Lower farms, were Jammu and Kashmir, Uttar Pradesh, Orissa and Tamilnadu. The statement below shows the position of these States.

States	In lower classes	
	% Area Leased-in	% All Tenants Holdings
1. Jammu & Kashmir	44.09	65.59
2. Uttar Pradesh	51.33	79.41
3. Orissa	56.51	80.62
4. Tamil Nadu	57.59	84.63

The Statement shows that Jammu & Kashmir had lowest shares both in terms of area and holdings, as compared to other three States. In other three States, the percentage of holdings was quite high ranging in 79.41 to 84.63 per cent.

States with 60 to 80 per cent Leased-in Area.

The four States, wherein the percentage of area leased-in by Marginal and Small farmers was 60 to 80 per cent, were Kerala, Bihar, Assam and West Bengal. Between the States, the percentage of leased-in area, did not vary much. However,

the percentage of tenant holdings varied from 80.23 per cent for Assam to 93.14 per cent for Kerala.

States	In lower classes	
	% Leased-in Area	% All Tenant Holdings
1. Kerala	69.14	93.14
2. Bihar	69.56	86.04
3. Assam	70.19	80.23
4. West Bengal	71.34	87.34

b) States Dominated by Higher Classes.

There were seven states in this category wherein the larger share of leased-in area was accounted for by Medium and Large farmers. These were Andhra Pradesh, Madhya Pradesh, Punjab, Karnataka, Maharashtra, Gujarat and Rajasthan.

States with 40-60 per cent leased-in area.

The Statement gives the percentage of area and holdings of the three States in this category.

States	In Higher classes.	
	% area leased in	% All tenant holdings
1. Andhra Pradesh	46.69	15.46
2. Madhya Pradesh	53.74	23.92
3. Punjab	58.54	35.90

It revealed that in Andhra Pradesh, Madhya Pradesh and Punjab, the percentage of leased-in area varied between 46.69 to 58.54 per cent. The percentage of holdings assumed by Higher farms ranged between 15.46 to 35.90 per cent. So the percentage share of holdings was quite less than that of Leased-in area. However, high differentiation was there in Andhra Pradesh only.

States with 60-80 Per Cent Leased-in Area.

There were four States, wherein the percentage of leased-in area, accounted for by Higher Farms (Medium and Large farmers) was very high.

States	By Higher Farm Classes	
	% Leased-in area	% Tenant holdings
1. Karnataka	62.72	29.42
2. Maharashtra	63.62	26.76
3. Gujrat	64.91	26.28
4. Rajasthan	70.13	40.61

From the Statement, it could be seen that the three of the States came from Western India. In two Western States (Maharashtra and Gujrat) and also in Karnataka, the percentages of leased-in area and tenant holdings were more or less the same and did not vary much. But in Rajasthan (one of the three Western States), the shares of

area and holdings were remarkably higher than in other three States.

5.2.3.4 Changes Between 1953-54 and 1970-71.

In 1953-54, in six States, viz Bihar, Jammu & Kashmir, Kerala, Tamilnadu, Uttar Pradesh and West Bengal, the percentage of area leased-in by Marginal and small tenant holdings was high. In 1970-71, while these States had retained the same position, two other states, viz Assam and Orissa had come into this category. Interestingly all these eight States came from Eastern, Northern and extreme Southern India.

It may also be noted that in the States wherein large proportion of leased-in area was shared by Medium ^{and} Large farmers, the shares of leased-in area and the tenant holdings had decreased overtime; and in the States wherein Marginal and small farmers accounted for large share of leased-in area, the shares of leased-in area, and tenant holdings had increased (the increase in tenant holdings was somewhat less proportionate).

5.2.4 Pure Tenancy in India Statewise Analysis.

The main objective of the tenancy reform in India was not only to improve the terms and conditions of tenancy relations, but also to reduce the magnitude of tenant class. As far as possible the motive was to create the self-cultivating ownership holdings class. In this section, therefore, our limited purpose is to study the

changes in the magnitude of pure tenant class in India. This discussion is divided into two sub-sections. The first one, deals with the variations in the percentage of pure tenants to total tenants in States and at all India level. The second one deals with the inter-state variations in pure tenancy by farm-size wise. The analysis is confined to two periods only, viz. 1953-54 and 1970-71.

5.2.4.1. Inter-State Variations in the Percentage of Pure Tenant Holdings to Total Tenant Holdings.

In order to bring out the variations, the States have been divided into three categories with ranges in percentage of Pure tenant holdings as follows:

- i) Less than 15 per cent (Low Level)
- ii) 15-30 per cent (Medium Level)
- iii) Greater than 30 per cent (High Level)

All India Levels:

At all India level, in 1953-54, the percentage of pure tenants was 42.52 per cent (i.e in the High level) and it has drastically reduced to almost half (21.85 per cent with Medium level) in 1960-61. It has further decreased to 15.03 per cent in 1970-71, almost coming to Low level. Thus , there has been a continuous decline in the percentage of pure tenant class in India.

Inter-State Variations 1953-54 and 1970-71:

As seen from the Table VII, it would be clear that

Table-VII: Percentage Pure Tenant Holdings in All Tenant Holdings

Range	States with Percentage		
	1953-54	1960-61	1970-71
< 15% (Low)		Bihar (12.11)	Madhya Pradesh (1.75)
		Uttar Pradesh (12.49)	Bihar (1.84)
		Madhya Pradesh (13.09)	J. & Kashmir (3.09)
		Orissa (13.16)	Andhra Pradesh (3.28)
		Maharashtra (13.68)	Uttar Pradesh (4.89)
			Maharashtra (6.44)
			Rajasthan (6.94)
			Gujrat (7.41)
			West Bengal (9.49)
			Punjab (11.13)
		Tamilnadu (13.58)	
		Assam (13.67)	
		Orissa (14.11)	
15-30% (Medium)	Uttar Pradesh (21.43)	Tamilnadu (15.61)	Karnataka (20.75)
		Andhra Pradesh (16.42)	*
		Gujrat (21.51)	
		W. Bengal (24.38)	
		Karnataka (25.18)	
	Punjab (27.00)		
7 30% (High)	Orissa (30.29)	Jammu & Kashmir (33.97)	Kerala (46.38)
	Andhra Pradesh (34.38)		
	Karnataka (36.25)	Rajasthan (42.73)	
	Madhya Pradesh (37.67)	Assam (37.96)	
	Maharashtra (38.07)	Kerala (52.98)	
	J. & Kashmir (41.12)		
	Punjab (41.21)		
	Bihar (41.65)		
	Gujrat (46.14)		
	Rajasthan (48.18)		
	West Bengal (51.10)		
	Kerala (52.90)		
	Tamilnadu (61.65)		
Assam (66.00)			

in 1953-54, majority of the States had High level percentage of pure tenant class wherein the proportion varied between 30 per cent and above. There were 14 States in this category (High level). There was no State in the Low category and only one State (Uttar Pradesh) falls in the Medium level. The Highest percentage was found in Assam (66 per cent) and the Lowest in Uttar Pradesh (21.43 per cent). Among the fourteen States in the High level, the lowest position was assumed by Orissa (30.29 per cent).

In 1970-71, the pattern has considerably changed. Except Karnataka and Kerala, all other States had Low level of pure tenant class ranging between 1.75 to 14.11 per cent. The Lowest and the highest percentages of pure tenant holdings were found in Madhya Pradesh and Orissa States, among those 13 States in the Low level. In the Medium level, only Karnataka was there with 20.75 per cent. In the High Level only Kerala was there with 46.38 per cent.

5.2.4.2 Percentage of Pure Tenant Holdings By Farm-size Classes.

Inter-state variations in the percentage of pure tenant holdings by farm-size is examined for two points of time, as in the previous sub-section the data is set in the Table VIII.

All India Levels:

In 1953-54, at all India level, the percentage of

Table-VIII: Percentage of Pure tenant holdings in All Tenant holdings in each class - States and All India 1953-54 and 1970-71

State	1953-54					1970-71				
	Marginal	Small	Semi Medium	Medium	Large	Marginal	Small	Semi Medium	Medium	Large
1. Andhra Pradesh	56.02	23.55	14.24	9.79	10.60	4.46	4.07	1.08	2.39	0.00
2. Assam	90.78	56.02	46.83	39.06	11.12	100.00	32.23	16.77	14.54	0.00
3. Bihar	60.61	14.49	13.60	3.09	16.63	3.02	0.00	0.00	0.00	0.00
4. Gujarat	77.31	44.91	35.93	19.80	24.66	24.21	0.00	2.51	0.00	3.39
5. Jammu & Kashmir	50.72	37.51	32.51	15.67	-	7.61	0.00	0.00	0.00	-
6. Karnataka	69.02	26.99	16.59	14.30	8.75	13.46	60.87	6.34	5.66	3.05
7. Kerala	50.44	15.79	11.11	7.68	0.00	49.33	14.73	6.85	0.00	0.00
8. Madhya Pradesh	76.84	23.56	15.51	13.04	8.36	47.22	12.86	16.88	10.05	6.76
9. Maharashtra	69.55	30.11	23.93	18.10	11.29	15.49	24.93	7.99	0.10	0.76
10. Orissa	51.42	8.18	2.96	6.07	15.37	25.54	0.00	1.17	4.76	0.00
11. Punjab	74.88	37.29	34.11	26.85	29.00	3.92	11.53	7.48	9.54	12.26
12. Rajasthan	76.05	52.84	42.87	42.86	28.68	27.74	0.00	5.75	8.13	0.00
13. Tamilnadu	77.41	26.50	25.35	12.06	24.06	18.27	5.88	3.32	2.48	0.00
14. Uttar Pradesh	35.52	8.05	6.94	1.63	7.74	5.19	4.42	4.22	5.13	59.15
15. West Bengal	71.46	23.39	12.10	5.34	0.00	11.57	5.66	9.69	0.00	-
All States	64.56	24.25	20.08	17.59	14.00	23.86	8.30	5.87	4.80	5.62

pure tenant holdings was quite high in Marginal farmers (64.56 per cent) and lowest in Large farmers (14 per cent). The percentage of pure tenant class decreased as we move from Marginal to Large farmers. This inverse relationship between pure tenant class and farm-size was maintained almost, even in 1970-71. For example, the percentage of pure tenant holdings in Marginal farmers was 23.86 per cent while it was only 5.62 per cent in Large farmers. What is important is that despite the decline in the proportion of pure tenant class at all India level, the relative dominance of Marginal farmers in pure tenant holdings had continued in 1970-71 also. The overall decline in the pure tenants also indicates that the role of mixed tenancy was on the increase.

Inter-State Variations 1953-54 and 1970-71

In 1953-54, in all the States, higher percentage of pure tenant holdings was found in Marginal and small farmers. There was no great deviation from the all India pattern. It is only in very few states, the percentages of pure tenant holdings were high in Medium and Large farmers.

In 1970-71 the pattern was far more clear. In all States large percentage of tenant holdings was shared in the Marginal farmers class. However some variations were noticed between the states. In Bihar, Jammu & Kashmir, the pure tenant holdings confined to only Marginal farmers class. In Kerala, West Bengal, Orissa, Rajasthan, Andhra

Pradesh, Tamilnadu and Maharashtra States, the percentage of pure tenant class was either negligible or nil in the large farmers class. It is only in Karnataka, Madhya Pradesh, Punjab, and Uttar Pradesh, the holdings were spread in all size-classes.

Summary.

In this section the major findings of the analysis are summarised.

Part A Leased Out Area and Holdings.

1. As far as Leasing out pattern is concerned overtime, it has experienced a considerable decline both in area leased-out and house holds leasing out. Taking the states, majority of the States (10 of 15) were in High and Very High Levels of Tenancy in 1953-54. But by 1960-61, the 3/5 ths of the States (9 of 15) moved into Low Level Tenancy. In 1970-71, Majority of the States were placed either in Medium level or both Medium and Low levels of tenancy (8 or 14 States). The ranges of leased-out area gradually decreased from 5.84 - 30.09 in 1953-54 to 0.52 - 13.68 in 1960-61 to 2.29 - 13.36 in 1970-71. In all the points of time Punjab had the highest percentage of leased out area. The ranges in percentage of House-holds leasing-out also decreased from 10.79 - 36.90 per cent in 1953-54 to 1.46 - 14.54 per cent in 1960-61 to 3.73 - 15.80 per cent in 1970-71.

Between 1953-54 - 1960-61 both the percentages of Leased-out area and Households leasing out had decreased drastically. But in between 1960-61 to 1970-71 the percentage leased-out area had increased in 9 states and the percentage Households leasing out increased in 12 states. These increases revealed that the tendencies have marginally reduced under-reporting in 1970-71, due to easy conditions and implementation of Tenancy and Ceiling Laws.

2. As regards the shares of states in leased-out area and Households leasing-out, it was seen that in all the three periods, Jammu and Kashmir had lowest position in both. The share of Leased-out area was the highest in Maharashtra in 1953-54, in Karnataka in 1960-61 and in Uttar Pradesh in 1970-71. Interestingly Uttar Pradesh had the highest position in both area and holdings, in 1970-71. Between 1953-54 to 1960-61 the shares of leased-out area had decreased in 8 states and in 7 of these States the share of Households leasing-out had also decreased. Between 1960-61 and 1970-71 the shares of leased-out area had decreased in 9 states and in 7 of these states, the shares of Households leasing-out had also decreased. The area and holdings share, had decreased in Jammu and Kashmir, Madhya Pradesh, Punjab and Tamilnadu in all the periods under study. In only one state of Andhra Pradesh, the shares of area and holdings increased in all the three periods.

3. As regards the distribution of leased-out area and Households by farm size, in 1953-54, in all the states, the dominance of the Higher classes (Medium and Large farmers) in leasing-out the area was quite evident (with more than 40%). By 1960-61, 4 states lost such dominance. of these 4 states, in 3 states (Assam, Uttar Pradesh and West Bengal) Lower Classes (Marginal and small farmers) had higher shares and one state (Orissa) did not fall in either category. By 1970-71 in half of the States, the Lower classes had higher share in area and holdings leasing out. In addition to the above 4 states mentioned, three other states were Bihar, Jammu and Kashmir and Kerala.

Interestingly majority of these 7 states were from Eastern and Northern India. Further, in 6 of the 8 states, where Higher classes dominated the leasing out patten, the level of both leased out area and Households leasing-out has decreased.

Part - B

4. Leased-in Area and Tenant Holdings.

At all India level, overtime, the percentage of area leased-in area has declined considerably and the decline in holdings was comparatively less. Considering leased-in area in the operational Holdings of States, there were 12 states in the High Level Tenancy in 1953-54. Their number came down to 6 and 4 in 1960-61 and 1970-71 respectively. The ranges in leased-in area decreased from 11.38 - 43.54 in 1953-54 to 5.83 - 35.39 per cent in 1960-61 per cent

and to 5.26 - 25.84 per cent in 1970-71. The percentage of tenant holdings was very high (>30 per cent) in all States, except Uttar Pradesh, in 1953-54. As per the data of 11 states available for 1960-61, these percentages had decreased drastically. But by 1970-71, there were some increases in few states. The Pure tenant holdings had decreased in all the States drastically. This might have eventually led to increase in the pure owner holdings and the Mixed tenant holdings.

5. As regards the shares of States in leased-in area and tenant holdings, the data showed that in both the periods 1953-54 and 1970-71 Jammu and Kashmir had the least position in both area and holdings. In 1953-54, the highest share of leased-in area was in Maharashtra and of tenant holdings in Tamilnadu. In 1970-71, both holdings and area shares had the highest position in Uttar Pradesh. Share in holdings and area had increased overtime in 6 states. These states were Bihar, Karnataka, Kerala, Orissa, Uttar Pradesh and West Bengal. In Andhra Pradesh, the share of All tenant holdings only increased. In all other States, there were decreases in both shares of holdings and area.

6. Considering the distribution of leased-in area and tenant holdings, by farm-size the data shows that in 1953-54, the Lower classes by leasing-in above 40 per cent area dominated in 6 states only. The Higher classes domination

was found in 7 states. The percentage of leased-in area was well spread in Lower, Higher and Semi Medium Farm classes in the remaining two states; viz: Assam and Orissa. By 1970-71, in the majority of the States (8 states including those 2 states) large percentage of leased-in area was confined to Lower farm classes only. Further, a over time there was a gradual decline in the percentage of tenant holdings in the States where, Higher farm classes dominated in Loased-in area, and the opposite was the trend in the States, where Lower farms dominated.

7. So far as the percentage of pure tenants in tenant holdings is concerned, it had declined gradually between 1953-54 and 1970-71 and the decline was more or less shared by all States and by all farm size groups. However the predominance of Lower farm classes in puro tenancy had continued in 1970-71 also.

CHAPTER VI

CHAPTER VI

RELATION OF SELECTED VARIABLES OF AGRARIAN STRUCTURE WITH SOME INDICATORS OF AGRICULTURAL DEVELOPMENT (RESULTS OF CORRELATION ANALYSIS.)

Agricultural development depends on several factors. The important of those which ultimately govern the pace of agricultural development may be grouped into environmental, technological and institutional factors. Among the institutional factors the agrarian structure is an important component. The different aspects of agrarian structure that matter most are farm-size and its magnitude, tenancy its type (fixed rate or share-crop), distribution of cultivating land etc. The role of farm-size and tenancy in agricultural development has been well recognized in several studies. The optimum farm-size and favourable tenancy relations, in fact, encourage the investment in agriculture and promote its development.

In this chapter, our purpose is not to indulge in fullfledged analysis of interaction between agricultural development of agrarian structure, but just to find out as to how the indicators of agricultural development are associated with the variables of agrarian structure at State level. The intention is, therefore, to bring out the association between some variables of agricultural

development and the variables of agrarian structure. This association is brought out by using a simple statistical technique, viz correlation coefficient (r). The variables of agricultural development used are essentially the output and inputs. These include productivity per hectare, land, irrigation, agricultural implements and fertilizer-use, while the variables of agrarian structure have been taken from Operational Holdings and Household Ownership Holdings. The analysis is divided into two main sections. In the first, we deal with association between operational holdings and agricultural development, while in the next, discuss the association between variables of ownership holdings and agricultural development.

SECTION I

6.1 Variables of Operational Holdings and Agricultural Productivity and Input-use.

In this section, the association between the variables of operational holdings and agricultural productivity and input-use has been considered. The variables of operational holdings used are:

- i) Percentage of Area Leased-in to the total operated Area (viz. magnitude of tenancy)
- ii) Gini Coefficient Value of the Distribution of Operational Holdings.
- iii) Average Size of the Operational Holdings.

iv) Percentage Area under Marginal and Small farmers classes.

6.1.1 Relation with Agricultural Productivity.

Table I gives the correlation coefficient values between agricultural productivity (in Rs.) per hectare and four variables of operational holdings.

On a priori basis three hypotheses were formulated.

(i) Firstly, it was presumed that the productivity per hectare and area under tenancy would have negative relationship, (ii) Secondly there would be an inverse relationship between productivity and average size of operational holdings. This inverse relationship had been found in several Farm Management Studies in India. The various aspects of this relationship were thoroughly examined by Krishna Bharadwaj in her Study¹. (iii) As a converse of the relation in (ii), the relation between the percentage of area under Small and Marginal farmers and productivity should hold a positive relationship.

The Period I (1953-54).

As seen from the Table, the productivity had negative

1. Krishna Bharadwaj, Production Conditions in Indian Agriculture, Cambridge University Press, 1974, p.11-18.

TABLE I : Correlation Coefficients between Variables of Operational Holdings and Indicators of Agricultural Development.

Variables of Operational Holdings Indicators of Agricultural Development	9 5 3 - 5 4				9 6 0 - 6 1			
	Y ₁	Y ₂	Y ₃	Y ₄	Y ₁	Y ₂	Y ₃	Y ₄
(a) Output Side								
1. Agricultural Productivity	0.5249	-0.0771	-0.7681	0.7322	0.3799	-0.0742	-0.8910	0.7772
(b) Land-use								
2. Percentage Net sown Area in total Reported Area in the State	-0.2737	0.3879	0.0583	-0.1303	0.2342	0.4604	0.2535	0.3832
3. Cropping Intensity	0.1744	-0.1082	-0.5956	0.5275	0.4142	-0.1606	-0.5876	0.3054
4. Percentage Area under Non-food grain crops	0.1717	0.3961	0.0816	0.0674	0.0399	0.3763	0.0523	0.0079
(c) Irrigation								
5. Percentage Net irrigated area in Net sown area	0.4934	-0.4634	-0.4879	0.4374	0.5685	-0.4247	-0.5652	0.5064
6. Irrigation Intensity	-0.0072	0.3263	-0.0637	0.1423	0.4144	0.4469	-0.2908	0.1923
(d) Agricultural Equipment								
7. Ploughs for 1000 Hs.	0.2264	-0.4992	-0.8022	0.7592	0.1329	-0.3839	-0.7976	0.7837
8. Oil engines and Electric Pumps per 1000 Hs.	0.1718	0.3357	-0.1136	0.0460	0.1039	0.0853	-0.1133	0.0771
9. Tractors per 1000 Hs.	0.2949	-0.2398	0.0832	-0.1404	0.6776	-0.1268	0.0986	-0.2086
(e) Fertiliser-use								
10. Fertiliser (NPK) H.Tonnes/1000 Hs.	-	-	-	-	0.1210	0.4466	-0.3352	0.2218

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	1	9	7	0	-	7	1
	Y ₁			Y ₂		Y ₃	Y ₄

(a) Output Side

1% 0.4762** -0.2537 -0.6328*** 0.6182***

(b) Land-use

2% 0.4003* 0.2147 0.3173 -0.3818*

3% 0.6092*** -0.3635 -0.5889*** 0.6028***

4% -0.2779 0.4608* 0.0545 -0.0444

(c) Irrigation

5% 0.5825*** -0.4754** -0.2610 0.2629

6% 0.2243 0.1621 -0.1097 0.0513

(d) Agricultural Equipment

7% Ploughs 0.1981 -0.6418*** -0.5874*** 0.6283***

8% 0.1248 0.0211 0.0534 -0.1234

9% 0.5726*** -0.2718 0.3474 -0.3162

(e) Fertiliser-use

10% 0.2336 0.1564 -0.0936 -0.0253

Y₁ = Percentage Area under tenancy.

Y₂ = Gini coefficient

Y₃ = Average size of the Holdings.

Y₄ = The percentage area under Marginal and Small Farmers.

* = Significant at 90 per cent level

** = Significant at 95 per cent level

*** = Significant at 97.5 per cent level

association with average size and positive association with percentage of area under tenancy and area under Small/Marginal farmers. Except for tenancy all relations are in accordance with the a priori hypotheses made earlier.

The association between productivity and Gini Coefficient value turned out to be negative but weak and hence insignificant.

The Period II (1960-61).

In this period also the three variables of Operational holdings, namely, tenancy, farm-size and area under Small and Marginal farmers had shown the same relation with productivity and the relations were significant. But the significance of r between tenancy and productivity was only at 90 per cent level.

The Period III (1970-71).

In 1970-71 too, the same three variables, tenancy farm-size, and area under Small and Marginal farmers had significant results. Here tenancy had once again showed positive relation and it also improved its significance level, its being significant at 95 per cent level. Further Gini value had higher negative r than in the previous periods but it failed to be significant even at 90 per cent level.

Thus during all the periods, productivity had shown negative relation with farm-size and positive association with tenancy and proportion of area under Small and Marginal farmers.

6.1.2 Variables of Operational Holdings and Agricultural Inputs.

In this section we have examined the association between the four variables of operational holdings and of four agricultural inputs. The inputs considered are Land-use. Irrigation, Agricultural implements and Fertiliser-use. The variables of operational holdings are the same throughout.

Relation With Indicators of Land-use.

Three indicators of land-use have been selected. They are as follows:

- i) Percentage of Net Sown Area in the total Reported Area in the State.
- ii) Cropping Intensity in percentage.
- iii) Percentage Area under Non-food grain Crops.

As far as Net Sown Area and Cropping Intensity are concerned, it is presumed that both should hold a negative relation with Average size of the holdings. As a converse to this relation, Net sown area and Cropping intensity should reveal a positive association with percentage area operated by Small and Marginal farmers. These hypotheses should hold good because the Small and Marginal farmers normally tend to use their land intensively.

1) The Period I (1953-54).

In 1953-54 Net sown area had positive association with Gini Coefficient and the same was significant at 90 per cent level. Further Gini Coefficient had also

revealed positive association with area under non-food grain crops and it was significant at 90 per cent level only. This indicates that the higher the inequality, the higher would be the percentage of Area under non-food grain crops.

Cropping intensity had a negative association with farm size and it was significant at 97.5 per cent level. This was in accordance with the a priori hypothesis. Further Cropping intensity had positive association with area and Marginal and Small farmers, and it was also significant at 97.5 per cent level, indicating that the higher the percentage of area under the Marginal and Small farmers, the higher would be the cropping intensity. This is a converse of the former relation.

ii) The Period II (1960-61).

Like in earlier periods, Net sown area and Area under non-food grain crops, had shown positive association with Gini coefficient. The former was significant at 95 per cent level while the latter at 90 per cent level. This indicates that where the net sown area is more there is higher inequality and where there is more land concentration, the area under non-food grain crops is high. Further surprisingly net sown area had shown a negative association with percentage area under Small and Marginal farmers, indicating that where there is higher percentage of net sown area the lower is the percentage area under Small and Marginal farmers.

Cropping intensity had positive association with tenancy and area under Small and Marginal farmers and negative association with farm-size. The association with tenancy was significant at 90 per cent level only and this relation shows that the higher the tenancy, the higher is the cropping intensity. The negative association between cropping intensity and farm-size and positive association with area under Small and Marginal farmers should happen for the same explanation as offered in period I.

iii) The Period III (1970-71).

Net sown area had positive and significant relation with Tenancy and negatively significant association with Area under Small and Marginal farmers. Both were significant only at 90 per cent level. The relation between Net sown area and Tenancy indicates that the higher the percentage net sown area, the higher the tenancy is.

Like in the earlier period, Cropping intensity had shown a positive association with Tenancy and Area under Small and Marginal farmers, and negative association with Farm-size. For all these relations the explanation would remain the same as in period II. Further there was negative and significant (only at 90 per cent level) relation between Cropping intensity and Gini coefficient, indicating that the higher the inequality, the lower the Cropping intensity. This negative relation improved from period I onwards and became significant in this period.

Like in the earlier periods Area under non-food grain crops had revealed a positive association with Gini coefficient. The r was significant at 95 per cent level.

Relation with Indicators of Irrigation.

The following two indicators of irrigation were used in the correlation analysis:

- i) Percentage of Net Irrigated Area in Net Sown Area.
- ii) Percentage of Irrigation Intensity.

As far as the inter-relationship is concerned, it was hypothesised the Net irrigated area and Area under tenancy should hold a positive relationship, thereby indicating that higher percentage of irrigated area would be associated with higher percentage area under tenancy. Such relation was found in P.S. Sharma's study and also in the Study of H. Laxminarayan and S.S. Tyagi for 15 major States in 1970-71. It is presumed that the relation between Net irrigated area and Farm-size would be negative i.e. the larger the farm would be, the lower the percentage area irrigated. This type of relation was found in many Farm Management Studies.

1) The Period I (1953-54).

Net irrigated area had positive association with Area under tenancy and Area under Small and Marginal farmers and negative with Gini Coefficient and Farm-size. All these relations except the one between Net irrigated

area and Area under Marginal and Small farmers had been significant at 95 per cent level. The relations of Net irrigated area with Tenancy and Farm-size were in accordance with a priori hypotheses. The positive association between Net irrigated area and Area under Marginal and Small farmers indicates that the higher the percentage of area under such farmers, the higher would be the percentage of irrigated area. Further the negative relation between Net irrigated area and Gini coefficient and Farm-size indicates that the lower the inequality in land holdings, and Smaller the farm-size higher would be the irrigated area.

Irrigation intensity had positive and significant association with Gini coefficient, indicating that the higher the inequality, the higher the irrigation intensity is.

ii) Period II (1960-61).

In 1960-61, like in the earlier year, Net irrigated area had positive association with tenancy and Area under Marginal and Small farmers, and negative relation with Gini coefficient and Farm-size. The relation between Net irrigated area and Gini coefficient was significant at 90 per cent level only. In all cases, the explanation was offered, in Period I.

Irrigation intensity had positive association with Tenancy and Gini- Coefficient. The relation between Irrigation intensity and Tenancy was significant at 90

per cent level and it shows that the higher the irrigation intensity, the higher the percentage area under tenancy is.

iii) Period III (1970-71).

Net irrigated area had positive relationship with Tenancy and negative with Gini coefficient. However, the relation of Net irrigated area with Farm-size and Area under Marginal and Small farmers turned out to be insignificant in this period.

Unlike in the previous period, Irrigation intensity had shown insignificant relation with Tenancy and Gini coefficient.

Thus during three periods under study by and large Net irrigated area had shown a positive relation with Tenancy and Percentage of area under Marginal and Small farmers and a negative relation with Gini coefficient and Farm-size.

Relation with Indicators of Agricultural Equipment.

The following three indicators of agricultural implements and machinery have been used:

- i) Ploughs per 1000 ha.
- ii) Oil engines and electric pumps per 1000 ha.
- iii) Tractors per 1000 ha.

A priori hypotheses made are that ploughs per thousand hectares of cropped area will have positive relation with tenancy and Area under Marginal and Small farmers, and a negative relationship with Gini coefficient and Average

size of the holdings. This indicates that the States where the percentage of tenancy and Area operated by Marginal and Small farmers is high the ploughs per thousand hectares would be high and vice-versa. While the State with high inequality in land holdings and big average size would tend to have low availability of Ploughs per thousand hectares.

Oil engines and electric pumps and Tractors indicate the modern agricultural machinery. No a priori hypotheses are made in these cases.

1) The Period I (1953-54).

In 1953-54, ploughs had shown a negative association with Gini coefficient and Farm-size, and positive association with Area under Marginal and Small farmers and all were significant. However Tenancy had revealed a positive relation with the number of ploughs.

Oil engines and electric pumps, and tractors per thousand hectares were not significantly related with any of the indicators of operational holdings.

ii) Period II (1960-61).

In 1960-61 also, the Variables indicated the same pattern of relationship as in 1953-54. Ploughs had shown a negative and significant relation with Gini-coefficient and Farm-size and positive association with Area under Marginal and Small farmers. Tenancy had continued positive relation with the number of ploughs, as in period I.

Oil engines and electric pumps had not shown any significant relationship with any of the variables of Operational Holdings.

However Tractors had a positive and significant association with Tenancy indicating that higher level of tenancy was associated with high level of use of tractors.

iii) The Period III (1970-71)

In 1970-71, Ploughs had negative and significant association with Gini Coefficient and Farm-size and positive relation with with Area under Marginal and Small farmers, as in Period I and II. The relation with tenancy remained positive, though not significant.

Tractors had positive and significant association with Tenancy as in 1970-71.

Relation with Indicator of Fertilisers.

The indicator chosen is the fertilisers (N.P.K) in H tonnes per 1000 ha. The data available is only for 1960-61 and 1970-71 (i.e Period II and Period III).

In 1960-61, Fertilisers had a positive and significant association with Gini coefficient, indicating that the higher the inequality, the higher is fertiliser-use. It also had shown negative association (though not significant) with Farm-size thereby indicating that fertiliser use was high in small farm-size and vice versa.

In 1970-71, Fertilisers had no significant association with any variable of the Operational holdings.

Section II

6.2 Variables of Household Ownership Holdings and the Indicators of Agricultural Productivity and Input-use.

In this section, we examined the association between the variables of ownership holdings and indicators of agricultural development. The same indicators of agricultural development are used here also. The variables of Household ownership Holdings, which are selected, are as follows:

- i) The Gini value of the Distribution of ownership holdings
- ii) The Average size of the holdings.
- iii) The percentage area under Marginal and Small farmers.

The details of correlations are presented in the Table II.

Relation with Agricultural Productivity.

As far as the relation between productivity and these variables is concerned, Farm-size had shown negative and significant association for all the three periods while the percentage area under Marginal and Small farmers had shown positive and significant association with Productivity.

Relation with Indicators of Land-use.

Here also the same variables of Land-use viz. percentage

TABLE II : Correlation Coefficients between Variables of Ownership Holdings and Indicators of Agricultural Development¹²

Variables of Ownership Holdings Indicators of Agricultural Development	1953 - 54			1960 - 61			1970 - 77		
	Y ₂₀	Y ₃₀	Y ₄₀	Y ₂₀	Y ₃₀	Y ₄₀	Y ₂₀	Y ₃₀	Y ₄₀
1. Agricultural Productivity	0.1365	-0.7641 ^{***}	0.3147 ^{***}	0.1258	-0.8619 ^{***}	0.7795 ^{***}	0.1648	-0.8016 ^{***}	0.6276 ^{***}
2. Percentage Net Sown Area in total Reported Area in the State	***			***					
	0.5307	-0.0054	-0.1392	0.6186	0.1466	-0.4367	0.7716 [*]	0.0125	-0.3821 [*]
3. Cropping Intensity	0.0748	-0.6058 ^{***}	0.5392 ^{***}	0.0532	-0.6084 ^{***}	0.5106 ^{***}	0.0384	0.7286 ^{***}	0.6182 ^{***}
4. Percentage Area under Non-food grain crops	0.1826	0.1003	0.0001	0.1934	0.0408	-0.0278	0.2434	0.0104	-0.0405
5. Percentage Net Irrigated Area to N.S.A.	-0.1445	-0.03276 ^{**}	0.4799 ^{***}	-0.0468	-0.6432 ^{***}	0.5564 ^{***}	0.1927	-0.5113 ^{**}	0.2904
6. Irrigation Intensity	0.4055	-0.0673	0.1160	0.4951 [*]	-0.3777 [*]	0.1911	0.4673 [*]	-0.3309	0.0950
7. Ploughs per 1000 Ha.	-0.2654	-0.7756 ^{***}	0.7890 ^{***}	-0.4485 ^{***}	-0.7531 ^{***}	0.8089 ^{***}	-0.5406 ^{***}	-0.5313 ^{***}	0.6390 ^{***}
8. Oil Engines and Electricity Pumps per 1000 Ha.	0.4451 ^{**}	-0.1308	0.0185	0.3132	-0.1733	0.0898	0.3240 ^{***}	-0.1318	-0.1440
9. Tractors per 1000 Ha.	-0.0234	0.0066	-0.0996	0.2983	-0.0517	-0.1742	0.4609 ^{**}	-0.0287	-0.02777
10. Fertiliser-use (M.Tonnes/1000 Ha.)	-	-	-	0.5189 ^{***}	-0.4043	0.2334	0.6754 ^{***}	-0.3574 [*]	-0.0200

Y₂₀ = Gini Coefficient

Y₃₀ = Average Size¹

Y₄₀ = ~~XOX~~ Percentage Area under Marginal & Small Farmers¹

* = Significant at 90 % level
 ** = Significant at 95 % level
 *** = Significant at 97.5 % level.

of Net Sown area, cropping intensity and Area under non-food grain crops were used. It was hypothesised that percentage of Net sown area would hold a negative relation with Average size of holdings and positive relation with percentage area owned by Small and Marginal farmers, while cropping intensity would have a negative relationship with Average size and positive relation with percentages of owned area by Small and Marginal farmers.

i) The Period I (1953-54)

In 1953-54, Percentage of Net Sown area had positive and significant association with Gini-coefficient, indicating that the higher the percentage of Net sown area, the higher is the inequality in Land holdings.

Cropping intensity had shown a negative association with Average size and positive association with percentages of area owned by Small and Marginal farmers and these relations were significant at 97.5 per cent level.

ii) The Period II (1960-61)

In this period, the percentage of Net sown area had positive association with Gini coefficient and negative association with percentage of Area owned by Marginal and Small farmers. The latter relation was significant only at 90 per cent level.

Cropping intensity had shown a negative relation with Farm-size and positive association with percentage of Area owned by Marginal and Small farmers. The same

relations are observed in 1960-61.

iii) The Period III (1970-71).

The percentage of Net sown area had the same significant relations with Gini coefficient and Area owned by Marginal and Small farmers as was observed in Period II.

Cropping intensity also had the same significant relations with Average size and Area owned by Marginal and Small farmers as in Periods I and II.

Relation with Indicators of Irrigation.

As far as the irrigation is concerned, the two indicators of irrigation, namely, the percentage Net irrigated area and Irrigation intensity were used. It was hypothesised that Irrigation level and Intensity would hold a negative relation with Average size and positive with percentage Area owned by Marginal and Small farmers.

1) The Period I (1953-54)

In 1953-54, the percentage of Net irrigated area had negative and significant association with Average size, and a positive and significant relation with the percentage of area owned by Marginal and Small farmers, as hypothesised.

Irrigation intensity had a positive and significant association with Gini coefficient, indicating that the higher the inequality the higher is the Irrigation intensity.

ii) Period II (1960-61).

In 1960-61, the percentage of Net irrigated area had the same significant relation with farm-size and the percentage Area owned by Marginal and Small farmers, as was observed in Period I. Irrigation intensity also indicated the same relationship with Gini coefficient as in Period I and it was also had negative and significant (90 per cent level) relation with Average-size.

iii) The Period III (1970-71).

In 1970-71, the percentage of Net irrigated area had a negative and significant relation with Average size. But the positive relation with Area owned by Marginal and Small farmers became insignificant, though positive as in the Periods I and II.

Irrigation, intensity maintained the positive and significant relation with Gini coefficient in this period also.

Relation with Indicators of Agricultural Equipment.

So far as the agricultural implements are concerned, the same three variables, viz, Ploughs, Oil engines and electric pumps, and Tractors, each per thousand hectares of cropped area were used.

1) Period I (1953-54).

In 1953-54, Ploughs had negative and significant association with Average size; and positive and significant association with the percentage of Area owned by Marginal

and Small farmers. Further it had negative association with Gini coefficient but not significant.

Oil engines and electric pumps had positive and significant association with Gini-coefficient, indicating that the higher the inequality, the higher is the use of oil engines and electric pumps.

Tractors had no significant relationship with any of the variables of ownership holdings.

ii) Period II (1960-61)

In 1960-61, Ploughs had negative and significant relations with Gini coefficient and farm-size, and positive and significant association with Area owned by Marginal and Small farmers.

Oil engines and electric pumps had positive association with Gini coefficient, as was noticed in the Period I, but the relation failed to be significant.

Tractors had no significant association with any of the indicators of ownership holdings.

iii) The Period III (1970-71).

In the last period, Ploughs had the same significant relations with the three variables of ownership holdings, as was observed in Period II.

Oil engines and electric pumps had positive and significant association with Gini coefficient.

Tractors for the first time had shown a positive and significant association with Gini coefficient, indicating that the higher the inequality, the higher is the use of tractors. It was less important in the first two periods.

Relation with Fertilisers.

The same indicator of Fertilisers was used as in the previous Section.

(i) 1960-61.

In 1960-61, Fertilisers per thousand hectares had positive and significant association with Gini coefficient, indicating that, the higher the inequality, the higher the fertiliser use is. Further Fertilisers had negative association with Farm-size, though significant at 90 per cent level. It indicates higher the Farm-size, lower is the fertiliser-use.

ii) 1970-71.

In this period also, Fertilisers had the same relations with Gini coefficient and Average size as in 1960-61.

Summary.

The findings of the correlation results may be summarised as follows:

1) Operational Holdings.

- 1) The hypothesised negative association of Agricul

tural Productivity with Average size and its positive association with the percentage of area under Marginal and Small farmers were held correct. But the hypothesised negative association between productivity and tenancy was found to be incorrect and there was positive significant relation instead.

2) (a) There was positive and significant association between the percentage Net sown area and the percentage area under tenancy in the period I only. Further there was significant positive association between percentage of Net sown area and Tenancy in the period I as well as in II. The negative and significant association was found between percentage of Net sown area and percentage Area owned by Small and Marginal farmers in the Periods II and III.

(b) There was a positive and significant association between the Cropping intensity and Tenancy in the periods II and III. Cropping intensity had negative and significant association with Gini Coefficient in the period III only. Further the hypothesised negative relation of percentage of Net sown area with Farm size and positive association of Cropping intensity with percentage Area under Marginal and Small farmers were correct and significant.

3) (a) The hypothesised positive association between the percentage irrigated area and Tenancy and Negative association between Net irrigated area and Average size were held correct.

The former was significant in all the three periods and the latter was significant in periods I and II only. There was negative and significant relation between Net irrigated area and Gini Coefficient in all the three periods. Further there was positive and significant association between Net irrigated area and percentage of area under Marginal and Small farmers in the Periods I and II.

b) There was positive and significant association between the Irrigation intensity and Tenancy only in period II. There was positive and significant association between Irrigation intensity and Gini Coefficient in periods I and II only.

4. a) The hypothesised negative association of ploughs per 1000 hectares with Gini Coefficient and Farm size and positive association between Ploughs and percentage of Area under Marginal and Small farmers were held to be correct in all the three periods.

b) There was no association of the oil engines and electric pumps per 1000 ha with any of the variables of operational holdings.

c) There was positive and significant association between the tractors per 1000 ha and Tenancy in the periods II and III only.

5. Fertiliser Use had positive and significant association with Gini coefficient, only in Period II.

11) Household Ownership Holdings-Variables.

1. Agricultural productivity had significant negative association with Average size of the ownership holdings; positive and significant association with the area under Marginal and Small farmers of ownership holdings in all the three periods. The same results were observed with corresponding variables of Operational Holdings.

2. (a) The percentage of Net sown area in total area had positive and significant relations with the inequality in all the three periods. Net sown area had negative and significant relation with the percentage Area owned by Small and Marginal farmers in period II and III.

(b) The cropping Intensity had negative and significant association with Average size and positive and significant association with the percentage Area owned by Small and Marginal farmers in all the three periods as hypothesised. The corresponding variables of operational holdings also had similar results.

(c) The percentage area under non-food grain crops had no significant relation with Gini coefficient in all the periods, although the corresponding variable of operational holdings had positive and significant relation in all the three periods.

3. (a) The percentage of irrigated area had significant negative relation with Farm-size in all the three periods. Net irrigated area had positive relation with percentage

area owned by Marginal and small farmers in all the three periods, but failed to be significant in Period III.

(The relation between irrigated area and Farm-size in case of operational holdings was not significant in Period III).

b) The Irrigation Intensity had positive and significant relation with Gini coefficient in all the 3 periods. (The corresponding relation for period III was not significant in operational Holdings) Irrigation intensity had negative and significant relation with Average size in Period II only although the association was negative in all the periods (Corresponding relation was negative in operational holdings, but in no period it was significant).

4. (a) Plough per 1000 ha. had negative association with Gini values and Farm size; and positive association with percentage Area owned by Marginal and Small farmers. Except the relation between ploughs and Gini coefficient in Period I, in all other cases, there were significant results (Corresponding relations in case of operational holdings also had significant results in all cases in all periods).

b) Oil engines and Electric pumps per 1000 ha had positive association with Gini coefficient in all the periods but failed to be significant in period II.

(c) Tractors had positive association with Gini coefficient in Period II and III but it was significant only in Period III (The corresponding relation in operational Holdings was negative, though insignificant in all periods).

5) Fertiliser-use had positive and significant association with Gini coefficient in periods II and III. (Corresponding relation in operational holdings was significant for period II only). Further fertilisers had negative and significant relation with Average size in both the periods (Corresponding relation in Operational Holdings were negative but insignificant in both the periods.).

CHAPTER VII

CHAPTER VII

SUMMARY OF THE FINDINGS AND CONCLUSION

As stated earlier, the main objective of the Study is to examine State-wise variations and changes in agrarian structure in India, expressed through Household ownership holdings, Operational holdings and the Extent of tenancy and then to look at the relationship between the selected variables of Agrarian Structure and the indicators of Agricultural development. The variations are studied for three time periods, viz. 1953-54, 1960-61 and 1970-71. In this Chapter we summarise briefly the following findings of the study and note the relevant conclusions emerging out of the analysis.

1) Household Ownership Holdings.

In the Chapter III, we analysed five aspects of ownership holdings, viz. percentage of landless households, average size of the holdings, inequality in the distribution of area and holdings, the distribution of area and holdings by farm-size and changes in the distribution of area and holdings. The summary of the findings is given below.

i) As regards landless households, it was found that at all India level the percentage of landless households decreased very significantly (by half) between 1953-54 to 1960-61 and further between 1960-61 to 1970-71. However the

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decrease was marginal in the Phase II. The decrease in the percentage of landless households at all India level was shared by most of the States, although the results revealed difference in the percentage change. As regards the inter-State variations in the levels of percentage landless households, States like Assam, Tamilnadu and Maharashtra showed high percentage of such households as compared to Jammu & Kashmir, Rajasthan and Bihar in 1970-71.

ii) Coming to the average size of the ownership holdings, there were wide variations between the States, the highest and lowest positions being assumed by Rajasthan and Kerala respectively in all the periods under study. In 1970-71 the average size was high in Rajasthan with 4.52 ha while it was low in Kerala with 0.50 ha. The rest of the states were in the middle range. Taking up the changes at all India level the average size declined sharply from 2.53 ha. in 1953-54 to 1.69 ha. in 1970-71. With the exception of Assam in the Phase II (1960-61 to 1970-71), in both the Phases the average size had decreased in all the States. However the percentage decline was more in Phase I than in Phase II.

iii) Looking at the variations in the inequality in ownership of area in relation to holdings, the results show wide inter-State variations. As many as ten to eleven States had shown a Very High to High concentration in ownership holdings (Gini value exceeding 0.60) in all the periods under

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study. In 1970-71, the inequality was comparatively high in Punjab with Gini value 0.7407 and low in Jammu & Kashmir (0.4109). Jammu and Kashmir had the lowest inequality in all the periods, and Andhra Pradesh had the highest inequality in 1953-54 and 1960-61, and Punjab had the highest value in 1970-71. Coming to the changes in the inequalities, at all India level the Gini value increased marginally between 1953-54 and 1960-61 and by 1970-71 it came to the 1953-54 level. During 1953-54 and 1960-61 the Gini value increased in as many as nine States and between 1960-61 and 1970-71 it increased in seven states. The States where there were decreases in Gini value, in the Phase II, noticed increases in the Phase I and vice versa. The continuous decrease in inequality was only in Jammu & Kashmir and only in two states there was continuous increase in the Gini Value i.e in Gujrat and Punjab.

iv) As regards the distribution of area, at all India in 1953-54 a very high percentage of area was under the ownership of Large and Medium farmers classes, while it was quite low among the Marginal and Small farmers. The Semi-medium class had an area in Medium level range. However in 1970-71 the percentage share of Large and Medium had decline. Thus in all states and India, there was gradual decline in the concentration of owned land among Large farmers. The shift in the area had gone in favour of Semi-medium and Medium farmers but the Marginal farmers did not

show any improvement in their position. The State level results showed that in as many as seven States, High percentage of area (more than 25 per cent) was shared by Large & Medium farmers classes in all the three periods under-study. Coming to the position of Marginal and Small farmers in 1953-54, in only two States High percentage of area was owned by Marginal and Small farmers. However, by 1970-71, the number of States in this category had increased to five. In the intermediate category seven States had shown relatively High percentage of own area, in semi-medium farmers classes. It may be noted that one State in 1953-54, three in 1960-61, and four in 1970-71 had indicated relatively high proportion of owned area in Small and Semi-Medium farmers classes. So strictly speaking, they could not be included in any of these categories. Now coming to the number of holdings, at all India level, the percentage of holdings was high in Marginal farmers and Low in Large farmers class. In other three farmer classes the percentage was in Medium level range (10-25 per cent) in 1953-54 and 1960-61. By 1970-71 the only change was the reduction in the percentage range in Medium farmers class-it being less than 10 percent. As regards the State-wise position 11 to 14 States had shown High percentage of households in Marginal farmers class, Medium percentage in Small and Semi-medium farmers and Low in the Large farmers class. In Medium class also it was Low in around 60 per cent of the States (10 to 9). An important point to be noted is that overtime there was increasing

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trend in the percentage of Marginal farmers, in most of the States in India.

v) As far as changes are concerned, the ICCR analysis revealed some important trends. It showed that the percentage of area owned by the Marginal and Small farmers (i.e. first 3 classes in 11 size-classes for which the ICCR analysis was used) was less than their share in holdings. The value of ICCR was less than 100. While the value of ICCR was more than 100 from the fourth class onwards. In fact there was positive association between the farm-size ICCR, as farm-size increases the percentage share in area, increases rapidly. Coming to the changes, ICCR increased in all classes in both the Phases. viz Phase I (1953-54 to 1960-61) and Phase II (1960-61 to 1970-71). In Phase I, the increase in ICCR was significant in all the classes, 3rd onwards (i.e. including Small farmers) and in Phase II the increase was significant from 4th class onwards i.e. with the exclusion of both Marginal and Small farmers class. There was no improvement in the position of first three or four classes. Thus the results indicated that percentage-share of Marginal and Small farmers class was not only less than their share in holdings but also there was no improvement and in their position during 1953-54 and 1970-71. During the period Semi-medium and Medium farmers classes had gained considerably. Coming to the State-wise position in phase-I the ICCRs increased in all States in most of the classes with exception of first class in nine states, and the last

class in four states. As seen from the significance test of the increases, the significant improvement had gone in favour of Semi-medium and Medium classes. The decrease in last class was significant in two States only. In Phase II also the pattern of change in ICCRs remained almost the same. During Phase II test of significance, showed that the increases were significant in Semi-medium and Medium classes. Of the four States where the ICCR decreased in last class, in only two states the decrease was significant. The overall changes across classes were significant in 5 States in Phase I and in 3 States in Phase-II, as revealed by significance of weighted Chi-square.

2. Operational Holdings.

In Chapter IV, we analysed five aspects of Operational Holdings, viz the percentage of households operating no land (depending on Household Operational Holdings), the average size of Operational Holdings, inequality in the distribution of area operated and holdings, Distribution of area operated and holdings by Fam size and the changes in the distribution of area and holdings by fam size. The summary of the findings is given hereunder.

1) (a) As regards the households operating no land two categories of such holding were discussed. First the changes in the households operating no land, which includes both the households owning but not operating land and those neither owning nor operating land, were discussed, Secondly changes

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in households owning but not operating land were discussed separately. It may be noted that these were part of the first category of households. Taking first category at all India level, the percentage of households operating no land increased almost by two and half times between 1953-54 to 1960-61, and further increased in 1970-71. However the increase between 1960-61 and 1970-71 was only marginal. Although there were differences between the States, the increase at all India level was shared by almost all the States. As regards the inter-State variations in the levels of percentages of households operating no land, States like Punjab, Tamilnadu and Andhra Pradesh had shown very high percentages in all the periods (except Tamilnadu in 1953-54), as compared to other States.

b) Coming to the households owning but not operating land in 1960-61 at all India the percentage of such households was as high as 17.42 per cent. By 1970-71 it had further increased to 20.51 per cent. This increase in India was shared by as many as 8 States. The same States namely Punjab, Andhra Pradesh, West Bengal and Tamilnadu had again shown high percentage of Households owning but not operating land. The percentage was low in both the periods in Jammu and Kashmir, Kerala and Rajasthan.

11) Coming to the average size of the operational holdings, there were wide variations, the highest (4.17 ha.) and lowest (6.51 ha) positions being assumed by Rajasthan and Kerala respectively in all the periods under study.

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Taking up the changes, at all India level the average size declined sharply from 3.05 in 1953-54 to 2.20 ha in 1970-71. With the exception of Kerala and West Bengal in the Phase I and Punjab in the Phase II in both the Phases the average size of the holdings decreased, in all the States. The decrease was substantial in most of the States.

iii) Considering the inequality in operational holdings (vis area in relation to the holdings) the results showed variations in 1953-54. However in 1960-61 and 1970-71, the inter-State variations were less than in 1953-54 as 10 to 11 States had Gini value less than 0.55. Jammu & Kashmir had the lowest inequality in 1953-54 and 1970-71 whereas Assam had this position in 1960-61. Andhra Pradesh had the highest inequality in first two periods and in 1970-71 this position was assumed by Rajasthan. Looking at the changes in the inequalities, at all India level the Gini value decreased sharply between 1953-54 and 1960-61, while it remained almost the same between 1960-61 and 1970-71. As a result in the Phase I the Gini values decreased in all the States, the decreases being sharp in many States. In Phase II the Gini values decreased in 10 States, the decrease was large in a few States only. Five States had shown an increase in Gini value. The increase was more in Rajasthan.

iv) As regards the distribution of area, at all India level, in 1953-54, a very High percentage of area was under the Operation of Large and Medium farmers classes, while it was quite Low in Marginal and farmers class. It was in

Medium range in Small and Semi-medium classes. By 1970-71 the percentage share of Large farmers class had declined. This shift in the area had gone in favour of remaining classes, particularly from Marginal to Semi-medium class. The State level results showed that in as many as seven States, High percentage of area (more than 25%) was operated by Large and Medium farmers classes, in all the three periods under study. Coming to the position of Marginal and Small farmers, in 1953-54 in only two States High percentage of area was operated by Small and Marginal farmers. However by 1970-71, the number of States in this category had increased to seven. In the intermediate category, seven States had shown relatively High percentage of operated area, in Semi-medium farmers class. It may be noted that one State in 1953-54 three in 1960-61 and six in 1970-71 had High percentage area in both Small and Marginal farmers classes. So strictly speaking, they could not be included in any of these categories.

Coming to the number of holdings, at all India level, in all the three periods, the percentage of holdings in Marginal farmers class was High (more than 25 per cent) and in Large farmers class it was Low (less than 10 per cent) While in the three intermediate classes the percentage was in Medium range (10 - 25 per cent). Looking at the State level picture, in 1953-54, in as many as ten States the percentage of holdings in Marginal farmers class was High (greater than 25 per cent). The same ten States had Low percentage of holdings in Large farmers class (i.e

with less than 10 per cent) By 1970-71, the number of States, where the percentage of Marginal farmers was High, had increased to thirteen (i.e with exception of Punjab and Maharashtra) and the Large farmers had Low percentage of holdings in all the States. As far as Semi-medium and Small farmers classes are concerned it had shown Medium range of holdings (10 - 25) per cent .

v) Changes in the Distribution of Area and Holdings -
ICCR Analysis

Coming to the changes, at all India level during 1953-54 to 1960-61 though there was general increase in ICCR of all 11 size-classes. The increase was significant only in Large farmers classes. Between 1960-61 and 1970-71, the ICCR increased in all classes, but the increases were significant from Semi-Medium class onwards (from 4th class onwards).

In the Phase I (1953-54 to 1960-61), the ICCR analysis for the States showed that in majority of the States, the ICCR increased for all classes except for 1st or last class in a few States. Even in the States where the ICCRs increased for the Marginal/Small classes (1st to 5th class), the changes were significant only in a few States. An important distributional change that may be noted is that in as many as 7 States there was significant decrease in the ICCR of last class. In two States viz Assam and Kerala the weighted Chi-square was also significant.

In the Phase II (1960-61 to 1970-71), in all the States the ICCR increased in most of the classes except marginal (two States) larger class (two States) and 4th class (one State). The test of significance revealed that in majority of the States in most of the classes there were positive and significant changes. In four States, only the positive and significant changes were in favour of Marginal and Small farmers class. In majority of the States, Semi-medium to Large farmers classes experienced significant improvement. Further the weighted Chi-square was significant in five States.

3) The Extent of Tenancy.

Leased Out Area and Holdings (ownership) Leasing-out.

1) In 1953-54 in majority of the States the percentages of leased out area was more than 10 per cent (High and Very High levels). In 1970-71 there was a overall decline in leased out area as a result fourteen States showed less than 10 per cent leased out area (Medium and Low Levels). Punjab had maintained its highest position in leased out area in the three periods under the Study. At all India level, the percentage of leased out area decreased from 11.43 per cent in 1953-54 to 5.77 per cent in 1970-71. Consequently the majority of the States had also experienced a considerable decline in the percentage of leased out area and households leasing out between the Phase I (1953-54 to 1960-61) and Phase II (1960-61 to 1970-71)

ii) As regards the distribution of leased out area and holdings, by farm-size, in 1953-54 in all the States the Large and Medium farmers had dominated the pattern by leasing out more than 40 per cent of the total leased out area in each State. By 1960-61, three States and by 1970-71 seven States had assumed such dominance in Marginal and Small farmers classes.

Leased-in Area and Tenant Holdings.

iii) At all India level the percentage of Leased-in area was 20.34 per cent in 1953-54. It had declined to 10.57 per cent in 1970-71. Taking leased-in area of the States, in 1953-54 in as many as 12 States, the percentage leased-in area was more than 10 per cent (High and Very High levels). However by 1970-71 only 4 States were found in that position. Further, between 1953-54 to 1970-71, the ranges in leased-in area had also decreased significantly. In 1953-54 the percentage of tenant holdings was very high in all the States (in 14 States it was more than 30 per cent). But by 1970-71, it had decreased in majority of the States. Further in this period (1953-54 to 1970-71) the percentage of pure tenants holdings had also decreased drastically in all the States

iv) Coming to the distribution of leased in area and tenant holdings by farm-size it was found that in 1953-54 in six States the percentage of leased-in area was High (more than 40 per cent leased-in area) in Marginal and Small farmers classes, in seven states Medium and Large farmers

had High percentage and in two States neither of the categories dominated. By 1970-71 the last two States viz. Assam and Orissa also had High percentage of leased-in area, the position of all other States remaining same. In the States, where Marginal and Small farmers had High percentage area also had proportionately High percentage of Tenant holdings and vice versa.

v) As far as the percentage of pure tenant holdings in total tenant holdings is concerned, it had gradually declined between 1953-54 and 1970-71. At all India level the percentage of pure tenant holdings reduced by half between 1953-54 and 1960-61 (42.52 per cent to 21.85 per cent) and further decreased to 15.03 per cent in 1970-71. So the magnitude of pure tenancy in India had declined considerably. The decline was more or less shared by all States and by all classes. However the predominance of Marginal and Small farmers classes in pure tenancy had continued in 1970-71 also.

4) Relation of Variables of Agrarian Structure with the Indicators of Agricultural Development.

In Chapter VI, the association between the variables of agrarian structure and variables of agricultural development was examined. The productivity per hectare and inputs from land-use, Irrigation, Agricultural Implements and Fertiliser consumption were the variables of Agricultural development used here.

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Relation of Variables of Operational Holdings with
Agricultural Development.

1) The area under Tenancy showed positive and significant relationship with Agricultural Productivity Net irrigated area, Cropping intensity and Tractors, indicating that the States with high magnitude of Tenancy had high productivity, Irrigated area, Cropping intensity and high number of Tractors. As a matter of fact, because of some negative elements associated with tenancy cultivation namely, the lack of incentives for investment and to increase output, we had hypothesised a negative association between the level of Tenancy and Productivity. However, the relationship turned out to be positive. In fact, other studies also noticed a positive association of Tenancy with agricultural productivity at District or State level (P.S. Shama's Study and the Work of H. Laxminarayana and S.S. Tyagi). The explanation for such relationship lies in the fact that the States where the percentage of irrigated area and cropping intensity are high, there, the level of Tenancy is also high. Further the magnitude of tenancy in absolute terms is not sufficient enough to extract a strong negative impact on the agricultural development at State level although it might be true at micro level. As such the effects of tenancy are overshadowed by the high level of development in the States. For example, Punjab had a high level of Tenancy and yet it had no negative effects on the development. This happened perhaps due to low magnitude of area under

tenancy in absolute terms.

ii) The inequality in the distribution of operational Holdings had shown a positive and significant association with percentage of Net sown area and percentage area under non food grain crops, and negative and significant association with Net irrigated area and Ploughs, indicating that the States with high level of inequality in operational holdings (or in other words the States where large farmers operated more land than the area under Marginal and Small farmers) tend to have high proportion of Net sown area and area under non-food grain crops. As far as the negative relation of inequality in Operational Holdings with Irrigated area and Ploughs per thousand hectares is concerned, it was observed in several studies because of large size and more use of modern inputs, the large holdings would have less number of traditional inputs like ploughs per thousand hectare of cultivated area, and because of the large size the proportion of irrigated area would be low. In areas where the percentage of larger farmers is high, the cropping intensity also would be low and such relation between inequality and cropping intensity was noticed in 1970-71.

iii) Coming to the Average size of the holdings it had shown negative and significant association with Productivity per hectare, Cropping intensity, Net irrigated area and Ploughs. These results were in conformity

with the findings of Fam Management Studies and also in other Studies at Micro level. Apart from other reasons given for this inverse relationship, the main explanation is that high use of labour on small farms (due to involvement of family labour). This was also confirmed by the results of positive relation of the percentage of Area under Marginal and small farmers with all these indicators of agricultural development. In fact, the relation of Area under Marginal and small farmers, with those indicators is the converse of the relation of average size with those indicators.

Relation of Variables of Ownership Holdings with Agricultural Development.

1) The inequality in the distribution of ownership holdings had revealed a positive and significant relation with Net sown area, Tractors and Fertilisers as in case of inequality of operational holdings. Further it had shown a positive association with oil engines and electric pumps, although it was not so in case of the inequality of operational holdings. The positive association of inequality with oil engines and electric pumps, tractors and fertiliser-use indicates that their use is a function of economic basis of the farmers.

ii) The average size of ownership holdings showed negative and significant association with productivity per hectare, cropping intensity, Net irrigated area and ploughs as in case of the average size of operational

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holdings. Further it had also shown negative and significant association with fertiliser use.

iii) As a converse of relationship of average size of holdings, the area under Marginal and Small farmers class was positively and significantly related with the Productivity, Cropping intensity, Net irrigated area and Ploughs. Further the Area under Marginal and small farm had negative and significant association with net sown area, as in case of Operational holdings.

CONCLUSION:

The findings of the study discussed earlier indicated two types of changes in the agrarian structure. Firstly, there had been a positive change in the distributional aspect of holdings and in the magnitude of tenancy. Notable change was the reduction in the concentration of land in the Large farmers class in both ownership and operational holdings and the reduction in operational holdings was more pronounced. Regarding the distribution across classes, the decrease in the concentration of land of Large farmers had gone in favour of Semi-medium and Medium farmers classes, both in Ownership and Operational holdings as revealed by the Inter-class Concentration Ratio (ICCR)

analysis. Further the percentage of landless households also had reduced considerably overtime. As far as the tenancy is concerned, the area leased out in ownership holdings and area leased-in operational holdings had declined in India and States. Further the pure tenant holdings (from Operational holdings) had also gradually lost its prominence. Secondly, the most disturbing observation was the continuous increase in the percentage of Marginal farmers. It had been rapidly increasing in India and in most of the States, presumably because of fragmentation of holdings due to population increase. Further, the percentage of households owning but not operating land had also increased rapidly and this could, perhaps, be the concomitant result of fragmentation, whereby the non-economic holdings would increase. Another important negative trend was that, the Average size of both ownership and Operational holdings was on the continuous decline at all India and in States.

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