

**CHANGES IN THE STRUCTURE OF
LAND HOLDINGS IN
MAHARASHTRA**

*A dissertation submitted to the
MAHATMA PHULE KRISHI VIDYAPEETH
Rahuri-413 722 (Maharashtra)*

*in fulfillment of the
requirements for the
degree*

of

DOCTOR OF PHILOSOPHY (AGRICULTURE)

in

AGRICULTURAL ECONOMICS

by

DATTATRAYA SHRIRANG VYAVAHARE
M.Sc. (Agri.) First Class with Distinction

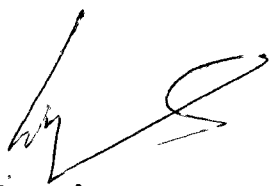
**MAHATMA PHULE AGRICULTURAL UNIVERSITY,
RAHURI - 413 722
1992**

CANDIDATE'S DECLARATION

I hereby declare that the dissertation entitled, "changes in the structure of land holdings in Maharashtra" or any part thereof, has not been previously submitted by me or any other person for a Degree or Diploma of any other University.

Place: Pune

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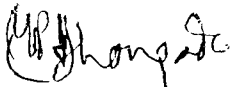

D.S. Vyavahare

Dr. M.P. Dhongade
Professor of Agricultural Economics
College of Agriculture,
Kolhapur,
Maharashtra State, India.

C E R T I F I C A T E

This is to certify that the dissertation entitled, "CHANGES IN THE STRUCTURE OF LAND HOLDINGS IN MAHARASHTRA," submitted to the Faculty of Agriculture, Mahatma Phule Krishi Vidyapeeth, Rahuri, District: Ahmednagar, Maharashtra State (India), in partial fulfilment of the requirement for the degree of DOCTOR OF PHILOSOPHY (AGRICULTURE) in Agricultural Economics, embodies the results of a piece of bona fide research work carried out by Shri. Dattatraya Shrirang Vyavahare, under my guidance and supervision and that no part of the dissertation has been submitted for any other degree, diploma or publication.

Place : Kolhapur
Date : 21st May, 1992


(M.P. Dhongade)
Research Guide

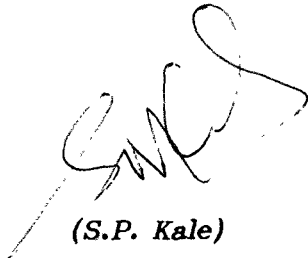
*Dr. S.P. Kale
Soils Specialist (MPAU)
Associate, Director of Research
National Agriculture Research Project
Scarcity Zone of Maharashtra
97, Raviwar Peth, P.B. No. 607,
Solapur 413 002
Maharashtra, India*

C E R T I F I C A T E

This is to certify that the thesis entitled, "CHANGES IN THE STRUCTURE OF LAND HOLDINGS IN MAHARASHTRA", submitted to the Faculty of Agriculture, Mahatma Phule Agricultural University, Rahuri, Dist-Ahmednagar, Maharashtra, India, in the fulfillment of the requirements for the degree of Doctor of Philosophy in Agricultural Economics embodies the results of a piece of bona fide research carried out by SHRI. DATTATRAYA SHRIRANG VYAVAHRE under the guidance and supervision of Dr. M.P. Dhongade, Professor of Agricultural Economics, College of Agriculture, Kolhapur and that no part of the thesis has been submitted for any other Degree or Diploma.

Place : Solapur

Dated 22/5/1992


(S.P. Kale)

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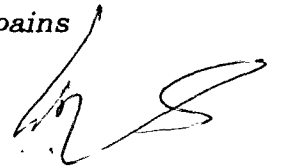
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ABSTRACT**CHANGES IN THE STRUCTURE OF LAND
HOLDINGS IN MAHARASHTRA**

by

D.S. VYAVAHARE

A candidate for
Doctor of Philosophy
Mahatma Phule Krishi Vidyapeeth
Rahuri - 413 722
1992

Research Guide : Dr. M.P. Dhongade
Department : Agricultural Economic

The present investigation was undertaken with a view to study the changes in the structural distribution of land holdings at state and districts level in Maharashtra for the period from 1970-71 to 1985-86. The study also focussed attention on the changes in land use, irrigation and cropping pattern as well as the factors affecting the change in the structural distribution of operational land holdings in the state during the period under reference. The data relating to the aspects of the study were collected from the Agricultural census reports for the years 1970-71, 1976-77, 1980-81 and 1985-86, for the state. The size group-wise data for the four Agricultural censuses were analysed for changes in the structural distribution of land holdings both for number of holdings and the area under each category at the state and district level. The percentage changes were also analysed separately. Gini Coefficients and Lorenz curves were used to study the inequality in the land distribution.

The analysis revealed that there was still the concentration of large acreage of land with the few large sized holdings; while a very large number belonged to size groups below 4 hectares but their operational area was relatively meagre. However, the inequality in the land distribution among farm size groups was found to be slowly declining. Various legislations enacted by the Government of Maharashtra (Tenancy Acts, Ceiling on land holdings 1961 Act, etc.) seemed to have made lot of impact on the distribution of land holdings as also in reducing the inequality to some extent. Amongst the sub-categories of operational holdings, the 'individual' operational holdings dominated the scene (96.15 per cent in 1985-86). The other sub-categories showed a decline indicating breakdown of joint families. It is also alleged that splitting up of large holdings might have been done to evade land ceiling legislations. The increase in small holdings during the period from 1980-81 to 1985-86 might be due to purposeful splitting of holdings to come in the categories of small and marginal farmers to reap the benefits of Government subsidies and concessions for small and marginal farmers. The predominance of 'wholly owned' ownership holdings (91.86 per cent in 1970-71 to 99.14 per cent in 1985-86) indicated almost complete abolition of the tenancy system. It may be due to effective implementation of Tenancy Acts in the state.

From the district level analysis, it was concluded that farm size groups below four hectares gained against the loss of medium and large size groups. The medium size group showed marginal changes in both positive and negative direction, for number as well as the area of operational holdings. The process of diminution of large holdings to smaller ones was prominent in the districts of Marathwada region followed by Vidarbha region. It might have happened to evade land ceiling legislations. The drastic changes in few districts like Aurangabad, Parbhani, Beed, Nanded, Osmanabad, Yavatmal, Ahmednagar and

Dhule indicated declining predominance of previously existing large holdings. The size of holdings in irrigated area tended to be relatively smaller was confirmed by increase in the irrigated holdings over the period under study. The factors influencing changes in the structural distribution of land holdings were mainly, the pressure of population coupled with the laws of inheritance, land reform measures such as Tenancy Acts and Ceiling Legislations. The social ladder process functioning in upward and downward direction might also be one of the factors. The socio-economic changes in the society were also likely to influence the changes in the structural distribution of land holdings.

On the basis of the analysis the following policy implications were suggested. The structure of land holdings in Maharashtra had shown some signs of changes in the direction of an equal distribution. However, the process needs further acceleration. A very large increase in the marginal and small holdings has resulted in a larger increase in the non-viable farms as evidenced from some other studies. In view of this, it is suggested that steps should be taken to arrest the drastic increase in marginal and small non-viable holdings. Lowering the ceiling limits on holdings and redistributing the surplus land to the landless persons or weaker sections of the society, did not solve the problem of rural poverty. In view of this it is suggested that while redistributing the surplus land, consideration be given to create economically viable units. In the policy for redistribution of land holdings through land reforms, there is a need for adopting a multi-dimensional approach. Alongwith equity, other parameters like efficiency, economic viability, diversification of rural economy and rapid development of secondary and tertiary sectors of our economy should also be considered.

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Chapter Opener Page

1 . INTRODUCTION

1.1 LAND AND ITS IMPORTANCE:

Land constitutes the single largest component of the rural assets in the country. An overwhelming majority of the population is still depending for livelihood on land. The contribution of land to national income, foreign exchange, industry and employment are the other indicators of its importance in the overall economy of the country. The most important aspect of land is the size of the holding or the operational unit of cultivation. Size of holding is an important indicator of the economy of cultivator and economy of agriculture in general. A viable size of farm gives the farmer an adequate margin over subsistence so that he may be able to invest in the farm for better prospects. The quality and quantity of land decide the potential prosperity of the economy.

The structure of land holding involves the relative position of different categories of farmers with respect to ownership and operation of land. The basic feature of the structure, therefore, includes ownership holdings, operational holdings and tenancy which explains the transformation of ownership holdings into operational holdings. The distribution of land, the interest with which it is held and cultivated and the system of tenure are important aspects of institutional framework of agriculture. The changes in these aspects have implications on the socio-economic development of the country.

Thus, the role of land in the national economy and its influence on social development is of paramount importance. However, land being the nature's gift, is subject to availability. The increasing pressure of population leads to decline in the per capita availability of land which can be observed from the 'land-man ratio'. In Maharashtra this ratio was 0.67 ha in 1961 which declined to 0.53 ha

in 1971. The declining per capita land means shrinking food availability and the problem becomes more severe due to continued growth of population. The proportion of land held by the economic size groups of the community and others is of vital importance in the context of farm size productivity relationship and its implications for the nation as a whole. Thus, the structural land distributions assumes significance in the context of economic development. In the study of structural distribution of land holdings we are generally concerned with the two basic aspects.

- 1) Distribution of "owned land holdings;" and
- 2) Distribution of "operated land holdings."

It is necessary to have a clear understanding of these terms. The concepts relating to land holdings are described below.

1.2 DIFFERENT CONCEPTS OF LAND HOLDINGS:

The basic term 'holding' technically speaking is a legal concept indicating parcel or parcels of land held under one lease, engagement or grant as contract or in the absence any such lease, *etc.*, under one tenure. According to Dentwala and Shah "holding is defined as comprising all plots (fragments, fields) under common ownership or cultivation". Agricultural holding normally implies the management unit, *i.e.*, the area of land held for cultivation as a single unit by an individual, joint family or more than one farmer on a joint basis. The land may be owned, taken on lease or may be partly owned and partly rented.

The term farm is very often used as synonymous to holding, but farm indicates the actual unit of cultivation. The farm size has become a topic of interest because of its impact on cost of production. Poverty in agriculture in most of the Third World Countries is as much a problem of farm size as of any

other single factor. Since the amount of income is dependent on the size of the farm, preponderance of small and tiny holdings is mainly responsible for poor peasantry in these countries. The size of farm is a vital element in determining the earning capacity of the farmer as well as efficiency of a farming unit.

In India, the problem of small holding is two fold. Firstly the holdings tend to be very small and secondly the individual holdings are broken up into a number of separate plots, often situated at a considerable distance from each other. The former tendency is designated as sub-division of holding and the latter as fragmentation of holdings. These tendencies have reached to an intolerable point in the Konkan region of Maharashtra where fields measuring less than one acre are found to be sub-divided into more than 20 separately owned plots, many of them less than 1/8 of an acre. This has proved to be very difficult to carry out different operations.

The terms 'operational holding' and 'owned holding' are often used in land distribution studies since they clearly imply the meaning of land under actual use and owned by the cultivator ^{respectively.} These in addition to other terms are explained below.

Ownership holding:

The total land owned by a household constitutes the "owned holding".

Ownership holding includes all the lands owned by a person or number of persons jointly. Such land may or may not be cultivated as one single unit. It may be that a part of it may be leased out and the remaining is cultivated as one unit.

Operational holding:

An operational holding refers to all the land, used wholly or partly for agricultural production, provided these lands are operated as a single unit by a single individual household or number of individuals or households jointly.

According to Food and Agriculture Organization (FAO), "operational holding" means all land used partly or wholly for agricultural production being operated or managed by a 'person' without regard to title, size or location and if consisting of two or more parcels forming part of the same technical and economic unit.

All India Report on Agril. Census (1971) defines the operational holding as "all land which is wholly or partly used for agricultural production and is operated as one technical unit by one person alone or with others without regard to title, legal form, size or location".

The size of operational holding is influenced by the land leasing practices adopted by the cultivators. If a cultivator "leases out" part of his owned land then his operational holding would be less than the owned holding. If he "leases in" some land from others then his operational holding would be greater than the owned holding. In case of absentee owners the operational holding would be zero as they do not cultivate any of the owned land and 'lease out' all their owned land to others. On the contrary, the landless labourer would have operational holding if he leases in some land for cultivation.

The 'lease-in' is an arrangement, written or oral by which the household permits some one else to use its land on ^{certain} terms such as fixed rent, fixed produce, crop sharing, mortgaging, etc.

1.3 DISPARITY IN THE DISTRIBUTION OF LAND HOLDINGS:

With the growth of population the disparity in the distribution of land tends to become wider and this leaves a larger portion of the population with holdings which are too small or with no land at all. Size distribution of land at National and State level could give clear idea about wide disparity as shown in Table 1.1.

Table 1.1 Size groupwise distribution of operational holdings in India and Maharashtra (1970-71)

Sr. No.	Size group of holding (ha)	India			Maharashtra		
		Number (million)	Area (mill. ha)	Average (ha)	Number (lakh)	Area (lakh ha)	Average (ha)
1	Less than 1 (marginal)	35.7 (50.6)	14.5 (9.0)	0.40	12.42 (25.09)	5.78 (2.73)	0.46
2	1-2 (Small)	13.4 (19.0)	19.3 (11.9)	1.44	8.78 (17.74)	12.84 (6.06)	1.46
3	2-4 (semi-medium)	10.7 (15.2)	30.0 (18.5)	2.80	10.87 (21.96)	31.41 (14.78)	2.88
4	4-10 (Medium)	7.9 (11.2)	48.2 (29.7)	6.10	12.29 (24.83)	77.17 (36.44)	6.28
5	10 & above (large)	2.8 (4.0)	50.1 (30.9)	17.89	5.14 (10.38)	84.70 (39.99)	16.48
Total		70.5 (100.00)	162.1 (100.00)	2.29	49.50 (100.00)	211.80 (100.00)	4.28

(Source: Ministry of Agriculture : Agril. Situation in India I - 36(7)565, II 40(5)407) figures in the parentheses indicate percentages to the total of holdings and area.

The concentration of land in few households is evident from the fact that the medium and large households holding land from 4 to 10 hectares and above though constituting only 15.2 per cent of the total cultivating households, command about 61 per cent of the total operational land at the national level. At

the State level (Maharashtra), 35.21 per cent households command 76.43 per cent of the total operational land. The marginal holdings constituting the largest percentage of the households command negligible area.

On this agrarian structure was imposed a situation where bulk of the cultivators were short of fixed and working capital resulting in inadequate application of modern technology leading to low yields. This production and land holding relation also tends to perpetuate and reflects on the income distribution among different rural classes. Thus, the inequality in land holding gives rise to inequality in income.

1.4 LAND REFORMS:

The government of India, no doubt, has been endeavouring to narrow down the inequalities in the distribution of land with a view to enhance productivity and production by enacting series of land reform measures since independence of the country. But the success of land reform measures in reducing the disparity in the distribution of land varied from state to state in the country.

The role of land reforms is pivotal in effecting desirable changes in the agrarian structure by way of land redistribution. The tenancy reforms aim at conferring the ownership rights on tenants of the land they leased in from the landlords. Ceiling on land holding is useful for taking away the surplus land of big landlords and utilizing the same for redistribution among the weaker sections of the society. The land reforms, thus, cause a shift of land from the bigger holdings to the smaller holdings and thereby contributing in reducing the disparity in the distribution of land.

The land reform policy is formulated at the national level while the further enactment and its implementation is left to the individual State Government.

1.5 THE PROBLEM:

In order to have a knowledge of the existing position of the structure of land holding in Indian agriculture, several attempts were made in the post-Independence period. Earlier attempts included the sample surveys. The endeavour began with the Agricultural Labour Enquiry Committee Report in 1954. The 8th Round of the National Sample Survey (NSS) collected this information in 1953-54. It was followed later by the 16th and 17th Rounds of the NSS in 1960-61 and 1961-62, respectively. A decade later a new chapter in this context was opened with the F.A.O. sponsored 'Agricultural Census', the first one taken up in the year 1970-71. Subsequently, census data or sub-census data were collected for the years 1976-77, 1980-81 and the latest one for the year 1985-86.

The Agricultural Census reports provide comprehensive and comparable information on distribution of land holdings, input use and supplementary activities like livestock, poultry, *etc.* This also reflects the developments in agriculture that are taking place and may also serve as the basis for future planning. The information is also helpful for determining the appropriateness of the past and the present policies. Holdingwise data at lower levels of administration may also be useful for the grass-root level planning. Vast data - a wealth of information is now available in the 'Agricultural Census Reports'. However, it is not critically analysed by the researchers. Series of reports are available for each state and the country as a whole from 1970-71 for each decade which involve a complete enumeration. In addition, there are mid-decade reports based on sample surveys. One can get an idea about the trend and the changes taking place in the structural distribution of holdings from these reports. In addition, the data are also available for land use, cropping pattern, irrigation, *etc.*, which can be analysed. Thus, a more accurate and reliable wealth of information is available for the country as a whole and for states and even for

districts in the state. However, this valuable treasure of data is not put to further analysis to the desired extent.

For Maharashtra State also, there are very few studies analysing the Agricultural Census data. It may also be pointed out here that there is not a single study analysing the district level data along with the state level data and changes that are taking place over a period of time. In view of the above, the present study, viz., "Changes in the structure of land holding in Maharashtra" has been undertaken. The following are the specific objectives of the study.

1.6 OBJECTIVES:

1. To study the changes in the structural distribution of land holdings in Maharashtra over a period of time;
2. To study the changes in the structural distribution of land holding at the district level;
3. To study the changes in land use, irrigation and cropping pattern; and
4. To study the factors affecting the changes in the structural distribution of operational land holdings in the state.

1.7 PLAN OF THE THESIS:

With the above objectives in mind, the thesis is planned on the following lines.

In the introductory topic, the importance and need for the study, objectives, scope and limitations of the study are discussed. This is followed by the review of previous research done on the topic under study. The third chapter is devoted to describe the methodology of the present investigation and analytical procedure used. The core of the dissertation, the results are presented in two chapters. Chapter four deals with the changes in the distribution of operational and ownership holdings depicting state level picture.

The district level analysis of changes in the number and the area of operational and ownership holdings is discussed in chapter five. The changes in the land use, irrigation, cropping pattern are discussed in chapter six. Chapter seven deals with factors affecting the changes in the structural distribution of land holdings in Maharashtra. The last chapter gives the summary, conclusions and policy implications.

1.8 UTILITY AND LIMITATIONS OF THE STUDY:

The present study is restricted to the state of Maharashtra. The study is primarily centred around the changes in the structural distribution of number and area of ownership and operational holdings during the period of 15 years. A study of this kind is expected to provide a valuable information on distribution of agricultural lands among different size classes of holdings. The results compared with other policies, programmes and underlying aim of social equity may indicate the appropriateness or otherwise of the present distribution of land holding in the state. The results may provide guidelines for the future land reform policies in particular and land policy in general.

The present study is based on Agricultural Census data for the years 1970-71, 1976-77, 1980-81 and 1985-86 for Maharashtra State. It also analyses the district level census data. Therefore, the results of the study, based on the macro-level information may not be useful for application at village level or for a particular holding size group. However, it could give broad indications as to in which direction the changes in the structural distribution of holdings are taking place in the state.



Chapter Opener Page

2 . REVIEW OF LITERATURE

2.1 GENERAL:

In research, it is always necessary to study the relevant literature on the topic in order to have a theoretical framework for designing research work on scientific basis. It also provides a guidance to researcher in approaching the research problem and conducting research in the right direction by giving proper understanding of the concepts, methodological and analytical issues. Therefore, scanning of the literature relating to the problem under study forms an integral part of any systematic research work.

As mentioned in the previous chapter, an attempt is made in this study to ascertain the changes in the structure of operational and ownership land holdings in Maharashtra. It is seen that there are few studies dealing with land distribution, its impact on people, productivity, their economy, *etc.* at the national level and for few states. However, very few of them probe deeper into it at district level data and factors responsible for it. Earlier studies were based on the sample surveys undertaken by the National Sample Survey Organization. Recent studies are based on Agricultural Census data. The reviews are classified as below :

- 1) Studies relating to structural distribution of land holdings and changes therein.
- 2) Studies relating to land reforms and the structural distribution of land holdings.
- 3) Studies dealing with the factors influencing the changes in the structural distribution.
- 4) Other miscellaneous studies.

2.2 STUDIES RELATING TO STRUCTURAL DISTRIBUTION OF LAND HOLDINGS AND CHANGES THEREIN:

Dantwala and Shah (1971) in their report on 'Evaluation of Land Reforms', (with special reference to Western Region of India) presented a detailed picture of the agrarian structure as existed in 1956-57 (pre-reform period) in which they found preponderance of small holdings. The percentage of small holdings varied from 76 to 51 whereas, area owned by them was in the range of 9 to 40 per cent. Non-residents (persons outside the sample village) owned a considerable proportion of land and their share in leasing out was substantial. The size class distribution of ownership holdings was not much different in the post-reform (1964-65) period. However, in all the districts, the average size of small holding was slightly bigger and that of large holdings slightly lower compared with 1956-57. The percentage of area leased out by non-resident owners to the total leased out area, however, continued to be very high-almost above half.

Thus, with varying degree absentee landlordism and concentration of ownership were the main characteristics of the agrarian structure in both the pre-reform (1956-57) and post-reform (1964-65) periods.

Dahiya (1976) studied the changes in the distribution of land over a period of time with the help of National Sample Survey (N.S.S.) data. It indicated that the distribution of operational holdings was less unequal than that of owned holdings in rural India. Further, he noted that the inequality in the distribution of operational holdings had a slight tendency towards narrowing down while in case of ownership holdings it remained virtually unchanged. Gini ratio in respect of ownership remained the same being highly skewed for all the three periods, viz. 1953-54, 1960-61 and 1970-71, despite the fact that a good deal of land reform measures had been enacted during the period.

Laxminarayan and Tyagi (1976) studying National Sample Survey (NSS) data on land holding for 1954-55 and 1971-72 concluded that India was essentially a country of small farmers as 67.93 per cent of households had the holdings less than 2.01 ha. They found that the share of small holdings (below 2.01 hectares) in the total cultivated area had increased from 15.00 per cent to 24.16 per cent while their share in the number of households remained around 68 per cent. During 1954-55 and 1971-72, considerable redistribution of land seemed to have taken place in favour of smaller holdings.

Malik *et al.* (1976) in the analysis of data of 8th and 26th Rounds of NSS found that the extent of inequality in the distribution of households according to ownership was more in the 8th round (1953-54), while according to household operational holdings, it was more in the 26th round (1971-72).

Harpal Singh (1976) examined the farm size distribution at the national level using data collected on land holdings during 8th, 16th, 17th and 26th rounds of N.S.S. for the years 1953-54, 1959-60, 1960-61 and 1971-72, respectively. He found that the structure of land holdings in India was showing some definite signs of changes in the direction of an equal distribution. He found declining share of large farms (15 acres and above) both in the total number as well as area. Whereas, the small and very small farms were adding to their share in the total number of operational holdings as well as in the total area. The declining inequality was confirmed statistically by decrease in the Gini coefficient of concentration from 0.857 to 0.758 for the period from 8th to 26th rounds of N.S.S.

Sirohi *et al.* (1976), in their study on interstate disparities in the structural distribution of land holdings in rural India, used secondary data on land holdings collected in the three rounds (8th, 16th and 26th) of N.S.S. They concluded that the disparities in the owned area were on significant decline since 1960-61 in several states. They pointed out that in the country as a

whole, the number of holdings as well as area operated increased over the period in all the size groups except large holdings. The largest increase was observed in the case of marginal holdings followed by small farmers in terms of both number and area.

Vyas (1979) using N.S.S. data of 8th, 17th, and 26th rounds found that the land holding structure had become slightly less skewed by the end of the decade (1961-62 to 1971-72) as compared to early years. He noted the increase in number and proportion of marginal holdings; whereas slight decline in their area. Small and medium holdings showed increase in number and area but proportion to total declined. Number and proportion of large holdings declined.

Pandey and Sarup (1981) found that there had been an increase in the number of holdings in all states. The proportion of marginal holdings was increased. The concentration ratio revealed that there was some improvement in the distribution of land holdings. The study also confirmed that the small holding size and higher proportion of small and marginal holdings contributed significantly to the higher cereal productivity.

Laxminarayan and Tyagi (1983) indicated characteristics of agrarian structure in India as:

1. High proportion of small and marginal ownership households and further decrease in the average size of tiny holdings.
2. Considerable increase in number of small and marginal holdings.
3. Higher growth of agricultural labour than the growth of number of ownership holdings indirectly increased landlessness in the country.
4. Sharp increase in the number of agril. labour households.
5. No improvement in economic condition of lower strata of rural population as indicated by their share in the consumer expenditure.

6. Poor rural households had hardly any access to institutional credit and they were more at the mercy of money lenders.
7. Continuance of considerable tenancy and deterioration of condition of tenancy by more and more tenants being evicted from land and increased conversion of other type of tenancy to crop sharing and formal tenancies to informal tenancies.

Dadibhavi (1986) using Agricultural Census data studied decadal (1970-71 to 1980-81) changes in the agrarian structure. He observed that the marginal and small holdings gained importance while large holdings lost their status. However, medium holdings remained unchanged. The average size of holding in all size groups have shrunk with the exception of the medium size group. The study revealed that with some improvement in the distribution of land holdings, trend pattern in the size distribution of holdings in Indian States was similar to that at the national level.

Pandey and Shanti Sarup (1986) in their study examined the changes in the pattern of distribution of land holdings during 1970-71 to 1980-81. They found increase in the number of holdings by 26 per cent in marginal, small and medium holding size and decline by over 22 per cent in case of large holdings. The average size of holdings had also declined during the three census periods.

Haque (1987) using 26th and 37th N.S.S. rounds found that Gini concentration ratio of both ownership and operational holdings showed rising trend in many regions between 1971 and 1981 despite the enforcement of revised ceiling laws after the national guideline of 1972. According to him, the rising proportions of landless, semi-landless and marginal households in the majority of the states should be a matter of serious concern for our planners and policy makers as the rates of labour absorption in both the agricultural and nonagricultural sectors of these regions were not adequate to meet the challenge

posed by rapid growth of landlessness. He recommends to tackle the problem in an integrated manner through far more radical redistribution of land.

Dantwala and Shah (1971) in their study of 200 tahsils each of Satara and Kolaba concluded that the size distribution of land ownership exhibited all the characteristics associated with the agrarian structure in countries with heavy pressure of population on land. The percentage of small (upto 5 acres) holdings to the total number of holdings of resident owners was above 50. The area owned by small holdings varied from 5 to 40 per cent of the total. The average size of holding varied from 1.6 acres in Panvel to 2.3 acres in Satara. The average size of large holdings varied from 37 to 70 acres.

Bhattacharjee and Singh (1976) examined the data of 8th, 16th, 17th and 26th Rounds of N.S.S., Agricultural Census and Village studies conducted by Agro-economic Research Centre, Vishva Bharati in Bihar. They concluded that the pattern of land holdings in Bihar was characterised by not only extreme 'inequity' but also by a preponderance of small and marginal farmers even in 1971-72. Land reform measures have till now failed to reduce inequality and protect the share croppers.

Dhar (1976) in his study used the data from 8th (1953-54) and 16th (1959-60) rounds of N.S.S. and the Agricultural Census 1971. He observed that in Jammu and Kashmir, the operational holdings were sub-divided at a higher rate than the population increase indicating the impact of land reform measures.

Dhongade (1976) analysed the data from 8th (1953-54), 16th (1959-60) and 26th (1971-72) Rounds of N.S.S. relating to the rural sector of Maharashtra and concluded that the large size class was the substantial loser both in number and area and that disparities in the distribution of land ownership among different size classes had been reduced over the period. He further concluded

that the impact of land reforms was less on the distribution of operational holdings as compared to the ownership holdings.

Galgalikar *et al.* (1976) in their village level study based on information from revenue records, concluded that the increase in the number of holdings had out-paced the increase in population for quinquennial period beginning from 1947-48 to 1972-73. They observed that the number of land holders increased by 81 per cent and the average size of holding has gone down by 60 per cent during the period.

Kumbhar (1976) examined the changes in the structural distribution of land ownership and use in rural Rajasthan during 60-61 and 71-72 with the help of data collected on land holdings in 10th and 26th Rounds of N.S.S. He observed that even though the distribution was extremely concentrated with a small majority owing/operating a very large part of land, there was some reduction in the inequality as between the size classes. The reduction in inequality was slightly higher in the owned area as compared to the operated area since the concentration ratios of owned and operated area declined from 0.658 and 0.645 in 1960-61 to 0.608 and 0.597 in 1971-72, respectively.

Saikia *et al.* (1976) using data from the Agricultural Labour Enquiry and the N.S.S. observed that in Assam the number of small, marginal and landless farmers was increasing due to the sub-division of holdings as well as sale of landed property to the medium and big farmers. Also most of the small and marginal farmers leased out a considerable part of their land to the medium and big farmers.

Sain (1976) analysed the data from 8th, 16th and 26th Rounds of N.S.S., All India Report on Agricultural Census 1970-71 and village data of 5 clusters of villages in 4 agro-climatic zones of West Bengal. He pointed out that Lorenz ratios calculated from data collected through different sources did not reflect

any definite trend. But the Gini concentration ratio and the inequality indices indicated clearly that the distribution of both ownership and operational holdings were significantly skewed. He felt that there was enough scope for enhancing aggregate social welfare through redistribution of holdings.

Sharma *et al.* (1976) observed in Haryana that the structural distribution of land holdings in pre-partition Punjab from 1924 to 1939 showed an increase in the area held by the large land holdings and a decline in their strength. The number of holdings over 50 acres decreased by 0.9 per cent but the area held by them increased by 12.3 per cent. At the same time, the number of holdings upto one acre increased by 2.3 per cent with decrease of 0.3 per cent in the area held by them. After independence, the trend was reversed over the decade from 1961 to 1971. There was an increase in marginal and small holdings with decrease of 20.95 per cent in the number of large holdings.

Somsekhar Rao (1976) found that in Andhra region of A.P. in recent years, the variation in the distribution of land owned and the land operated was less uneven when compared to 1950's. However, the variation in the distribution of operational land did not seem to commensurate with the distribution of owned land due to the reduction in rental land. Both the smaller (below 1 ha) and the larger (above 10 ha) holdings had declined in number and the number of medium (4 to 10 ha) sized holdings had increased during the last two decades.

Vishwa Mittar and Gupta (1976) observed in a developed village in Punjab that between 1953 and 1976 the share of the bottom 20 per cent of the households in land ownership had declined while that of top 20 per cent households increased. Thus, the development seemed to have led to more unequal distribution of land ownership.

Vyas (1976) collected information on the distribution of agricultural holdings in Gujarat from the N.S.S 16th, 26th Rounds and Agril. Census Report of 1970-71. Comparing the results from these reports he concluded that the share of large holdings (25 acres and above) had declined in terms of area as well as number. The share of medium sized holdings, *i.e.* 5 to 25 acres had remained more or less constant in terms of area cultivated, though their share in the total number of holdings had declined. The share of small holdings, *i.e.* upto 5 acres had increased in terms of both the total number of holdings and the total area cultivated though there was no perceptible change in the average size of holding.

Vishwa Mittar (1981) pointed out that the marginal and small holdings gained in number, the big holdings gained in area.

Using secondary data on operational holdings relating to size, type and tenure system for the three Agricultural Census years 1970-71, 1976-77 and 1980-81 Shrivastava (1987) worked out structural changes in land holdings in Madhya Pradesh. Marginal group covering 32 per cent of holdings owned 4 per cent of the total area whereas 40 per cent area was owned by 10 per cent holdings in large size group. The number of holdings and area operated increased during 1970-71 to 1980-81 for all size groups except large size. The average size of holdings declined from 3.99 hectares in 1970-71 to 3.68 in 1976-77 and 3.00 ha in 1980-81. The proportion of individual holdings was higher (97.5 per cent of the total) with increasing trend whereas joint and institutional holdings were decreasing. The higher proportion of self operated owned area (less than 2 per cent) indicated a healthy system of land tenure.

Gadre *et al.* (1987) in their village level study in Ryotwari village in Vidarbha for the two periods from 1947-48 to 1972-73 and further till 1986-87 indicated 81 per cent and 271.70 per cent increase in the number of holdings,

respectively. The average size of holding came down from 7.12 hectares in 1947-48 to 3.94 in 1972-73 which further dwindled to 1.95 hectares in 1986-87. Structural changes occurred mostly in the groups of small and large farmers. Farmers had taken steps to circumvent the provisions of the impending legislation. There had been significant increase in the proportion of marginal and small farmers.

Dutta (1988) in his study relating to temporal analysis of structure and distribution of land holdings in Bihar found that the total area of operational holdings had declined over three census periods while the total number of operational holdings had been on increase for two censuses the number has increased by 31 and 13 per cent in 1976 and 1981 over the previous census, respectively; whereas, the area decreased by 3.5 and 0.5 per cent for the same period. The decline in the overall inequality in the distribution was shown by both Gini Co-efficient and Theil's index based on alternative formulation. This was also confirmed by Atkinson's indices which also indicated that the same level of social welfare could be achieved only if, 30 per cent, 40 per cent and 41 per cent of the total areas were equally distributed in 1970-71, 1976-77 and 1980-81, respectively.

2.3 STUDIES RELATING TO LAND REFORMS AND THE STRUCTURAL DISTRIBUTION OF LAND HOLDINGS:

George (1968a) examined the findings of the reports of the different states in the country and pointed out that where the provisions were liberal and based in favour of the intermediaries and where there was no adequate protection to the tenants, the tenant cultivators were adversely affected for example in Saurashtra. On the other hand where abolition of intermediaries was associated with tenancy legislation of a progressive nature, the effects of abolition was not

adverse. In U.P., Rajasthan and Saurashtra, the distribution of land among the intermediaries after the land reforms was more equitable than that before land reforms.

Dantwala and Shah (1971) found that in the sample of 3885 resident owners, 41 per cent owner cultivators, 37 per cent cultivators-cum-tenants (in addition to cultivating owned land leased in some more land) and 14 per cent besides cultivating land, leased out a portion of its ownership holding in the pre-reform period. During post-reform period, number of resident land owners increased 4218. Their distribution according to the tenancy status revealed that a larger percentage (68 as against 41 in pre-reform period) of resident families were cultivating owned land. Consequently, the percentage of owner cultivator-cum-tenants declined from 37 to 21. Similarly, the percentage of pure lessor also declined from 5 to 3 and that of other lessors from 14 to 5. On the whole, it can be said that in the post-reform year, the situation was more healthy as judged by the classification of resident owners according to the tenure status.

Dhongade (1976) using data from 8th (1953-54), 16th (1959-60) and 26th (1971-72) Rounds of N.S.S. relating to land holdings in rural sector of Maharashtra concluded that the proportion of households leasing out land increased in smaller size classes while it declined in the larger size classes. However, there had been a decline in the area leased in.

Kasar and Acharya (1976) while studying the land leasing practices adopted by the cultivators before and after the execution of tenancy legislation in a village in Western Maharashtra found that the practice of land leasing had almost ended in post-implementation period. This had resulted in narrowing the gap between owned holdings and the operated holdings of the cultivators in the village.

Pal and Pal (1981) pointed out that the average size of land holding had declined in India. Yield regression established significant positive impact of average size, irrigation ratio, size class equality of holding and leased-in land on one hand and significant negative impact of parcellisation of operational holdings on the other.

Laxminarayan and Tyagi (1983) while studying the implementation of land reform programmes which were introduced with a view to providing security to tenure to tenants and fixing fair rents observed that it had made the position to tenants even more insecure than before. Tenancy legislation disturbed the traditional lease arrangements without providing a suitable alternative. They also observed that in large number of cases land had been redistributed within the same family for evading ceiling legislation. In case of tenancy, crop share tenancy in cereal growing areas and cash rent tenancy in cash crop growing areas observed to be common and the latter was decreasing.

Disparity between ownership and cultivated area indicated that the ownership area exceeded the operated area in case of marginal holdings thereby indicating that small holdings leased out more land than what they cultivated. Land lease market was largely dominated by small and marginal farmers. In states like Rajasthan, Gujarat, M.P., Punjab, Maharashtra, Karnataka and Haryana, relatively bigger farmers leased-in considerable area.

Chatha *et al.* (1986) studied effect of land lease market structure and tenancy reform on equity in the distribution of operational holdings based on field data of 522 sample farmers from 9 villages of Punjab for 1984-85. About third of the sample farmers had resorted to leasing-in land and proportion of leased-in land to total operated area was about 14 per cent. A relatively higher percentage of land was leased-out by small farmers. Both leasing-in and leasing-out was indicated to make profitable and to make the holding viable

operationally, respectively. The disparity in the distribution of operational holdings declined by 4.46 per cent as compared to that of owned holdings.

Pandey and Shanti Sarup (1986) in their study to examine the tenancy conditions during 1970-71 and 1980-81 indicated that the system of tenancy was almost disappearing due to enacting of various land legislations. Smaller farmers showed higher productivity.

Patnaik (1987) while studying agrarian structure in Orissa concluded that as far as the objectives of abolition of tenancy was concerned there was favourable trend as denoted by a fall in the area leased-out. It was also found that the factor endowments like irrigation, capital and credit had high correlation with the size of operational holdings.

Rajgopalan and Anuradha (1987) in their study in Thanjavur (T.N.) found that the main changes in the land holdings as exhibited by the sample farms for 1967-68 and 1984-85 were increase in the number of owners and reduction in the size of owned and operational holdings. Tenants, though going down in number were better placed than before.

From land reform studies, George (1968) concluded that the abolition of intermediaries did not adversely affect the cultivation on holdings of ex-intermediaries. Also, the tenancy practice did not change for the better to any large degree. The inquiries revealed a considerable extent of disguised tenancy, share cropping and forced labour.

Misra (1974) in his field survey found that though intermediaries had been abolished and land rights had been granted to cultivating household, in fact the position of land owners most of whom had small holdings did not change materially. Thus, the land reform measures did not make any significant improvement in the general structure of land distribution.

2.4 STUDIES DEALING WITH THE FACTORS INFLUENCING THE CHANGES IN THE STRUCTURAL DISTRIBUTION:

While studying the agrarian structure prior to and after Bombay Tenancy and Agricultural Lands Act 1948 (Amended in 1956) Dantwala and Shah (1971) mentioned that besides this legislation, several factors like resumption of leased land by the owners or acquisition of ownership rights by the tenants emanated from the tenancy legislation affected land ownership and operational holding. Some landless person may acquire land or some small farmers if they had some tenanted land which they acquired as a result of legislation would move to upper category. On the other hand some medium and large land owners, if they lost the leased out land as a result of legislation, would go down the ladder.

Asthana and Shukla (1976) examining incidence of individual and joint holdings using 8th and 26th Rounds of N.S.S. data for UP, observed increase in individual holdings by 0.73 per cent per annum at an aggregate level. Among the joint holdings, the rate of decrease was 4.80 per cent at an aggregate level. This indicated the declining trend in case of joint holdings due to their break-up into individual holdings.

Marothia (1976) examined the village level data of 70 farmers randomly selected in 2 villages of M.P. and pointed out that the proportion of farmers who purchased land varied from 6 and 41 per cent in medium and large size groups, respectively. Amongst different size groups, the sale of land was more on the small and semi-medium than on the medium farms but there was no sale of land on large farms.

Sirohi *et al.* (1976) studied the inter state disparities in the structural distribution of land holdings in rural India. According to him the factors contributing to structural changes might be:

- i) Increase in the rural population coupled with break down of joint family system; and
- ii) The land reform measures, particularly, ceiling on land holdings, tenancy reforms and Bhoodan movement.

Vyas (1979) in his presidential address (38th conference of Ind. Soc. of Agri. Econ.) indicated some possible factors for the structural changes. The factors were:

- 1) Purchase of land by marginal and small land owners and sale of land mainly by large and big owners;
- 2) Impact of land reforms and movements of similar nature like Bhoodan, land-grab, etc., resulting in the breaking up of large holdings, and allocation of land to small owners; and
- 3) Demographic pressure necessitating division of holdings. These could be identified respectively as market induced, institutional and demographic processes.

Bal *et al.* (1981) pointed out that the increase in number of holdings was not only due to population growth but due to some other factors. They further found that a very large increase in the very small holdings had resulted in a further increase in the inequality or the uneven distribution of farm holdings.

Mahajan (1983) while noting general failure of land reforms to bring about substantial change in agrarian system of land distribution, mentioned several factors responsible. According to him, former Zamindars and their intermediaries had re-emerged on the rural scene and exercised their strong hold over the agricultural land thereby defeating the very purpose of land reform. He also observed that the officers responsible for implementation of land legislation were themselves indulging in land grabbing operation.

Prannoy Roy (1983) indicated that in Indian agriculture, where the system of proprietorship was widely prevalent, Hindu laws of inheritance tended to exert a long term pressure on dividing better quality land into smaller

holdings and poorer quality land into larger tracts. This was mainly a result of the universal principle of equality in the value of share distributed to each of the heirs.

In 'Agrarian Reforms in India' Bergman (1984) put forth the factors affecting the progress of land reforms. According to him, existing administrative structure was biased towards the economically better and powerful rural strata. It did not promote agrarian reform measures. The active participation of the potential beneficiaries was lacking. He further points out that socio-economic and administrative frame work put several barriers against agrarian reform. Obsolete, entrenched land tenure system, counter reform, caste system, narrow man-land ratio, socially biased administration, etc. were factors against the successful implementation of reform.

Bimankar (1986) observed that in addition to legal and administrative barriers, the question of ethical and ideological basis needed due attention for agrarian reforms in India, as they exert sizeable effect. He suggested multi-dimensional approach like equity and efficiency in the agrarian structure, diversification of rural economy and rapid development of secondary and tertiary sectors of our economy.

Garde *et al.* (1987), while examining the factors responsible for structural changes in the distribution of land indicated that land reform measures were mainly responsible for the changes.

Venkat Rao and Reddy (1987) using quinquennial agricultural census data examined the land reform impact on changes in land relations. They found that effective implementation and strong political will had resulted in the decline of Gini concentration ratio from 0.492 to 0.438 in Tripura; whereas, the lack of these had resulted in increase in the ratio in Manipur from 0.314 to 0.351. In other states where the legislations were non-existent or only nominal, concentration ratio could not show favourable results.

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2.5 OTHER MISCELLANEOUS STUDIES:

According to Adhvaryu (1971), the efficiency aspect of the problem was much less important than the employment objectives and the land ceiling policy was therefore preferable. Lowering the land ceiling would help to slow down the process of proleterisation of the rural population.

Ladejinsky (1972) suggested that by the ceiling on holdings, there was not enough to raise the existing holdings above their levels and that to provide land for the landless would mostly increase the uneconomic and unviable holdings. As the ceiling beneficiaries had inadequate resource to develop, the main object of increasing agricultural production due to the ceiling on holding could not be achieved. Lowering the ceiling on holdings and redistributing the surplus land to the landless persons or weaker section of the society, did not solve the problem of rural poverty.

Rao (1978) felt that the distribution of surplus land among the landless and poor people would provide them with some or more of the land and thus relieve them from unemployment, a disguised unemployment.

Thimmaiah and Aziz (1983) observed that the land reform measures had been in operation in India for nearly three decades but had not achieved significant results particularly with regards to its redistributive objective. According to the Indian constitution the State Governments were responsible for the formulation and implementation of land reform measures but the Central Government had been advising the State Governments with a view to securing uniformity in land legislation throughout the country. However, there were wide variations in the legislations as also in the degree of implementation among the states. Ceiling on land holding had emerged as the most important instrument in bringing about structural changes in distribution by taking the land of large holding and distributing the same among landless or marginal and small holdings

to make them viable. Studies on ceiling indicated that in addition to land distribution it has resulted in tension between looser and receiver of land. Due to lack of resources and inability to develop them, the beneficiaries could not add to the production.

Tilekar *et al.* (1985) in their micro level study based on revenue records found that the average size of holding had declined in the year 1986-87 as compared to that in 1971-72. The detailed examination of cropping pattern indicated that hybrid jowar and sunflower were the new crops cultivated by the farmers. The area under high-yielding varieties/ hybrids (wheat, jowar) had increased while the area under local jowar had decreased.

2.6 CRITICAL APPRAISAL OF THE REVIEWS:

The overall picture emerging from the reviews is that the changes in the size distribution of holdings took place in favour of small holdings at the cost of reduction in large holdings both in number as well as area. This may be due to various factors like sub-division on account of demographic pressure or breakdown of joint families, sale purchases, purposeful division to avail the facility of subsidies offered by Government for small holdings, land reform measures, *etc.* However, results vary with regard to the reduction in inequality in distribution of holdings. According to Dahiya, in India, the inequality in the distribution of owned holdings slightly increased while it declined in case of operated holdings during the period from 1953-54 to 1970-71. Similar observation was noted by Harpal Singh. According to Sirohi *et al.*, the inequality of the owned area showed some decline; while it was not reduced in case of operational holdings during the period 1953-54 to 1971-72. The shrinking in the average size of holding of all size groups was reported by Dadibhavi for the decade 1970-71 to 1980-81 based on Agricultural Census data.

An increase in the number of marginal and small holdings was noted by Pandey *et al.* (1986). Haque (1987) using N.S.S. data of 26th and 37th rounds observed rising trend in both ownership and operational holdings inspite of revised ceiling laws. More or less similar observations were noted by many researchers for different states in India which include Vyas (Gujarat), Shrivastava (Madhya Pradesh), Dutta (Bihar), Saikia (Assam), Sain (West Bengal). In Maharashtra also such exercises undertaken at village level and for the state using N.S.S. data had given similar results.

While studying tenure and tenancy, decline in leased out area inspite of increase in number of leasing out farmers was noted by Patnaik in Orissa, Dhongade in Maharashtra, *etc.* According to Chatha, leasing in and out was intended to make more profit and to make holding operationally viable, respectively. Therefore, small farmers leased out at large. After tenancy legislation the practice of leasing was observed to be disappearing resulting in reduced gap between owned holdings and operated holdings.

Studies on factors affecting structural distribution of land holdings were few and very general factors have been put forth.

Many researchers have used data from N.S.S. rounds which has many limitations. Now, series of Agricultural Census Reports are available. The data in the reports are more accurate and reliable. However, no attempt seems to have been made to analyse these data. Many of the earlier studies have analysed state level or country level data. Very few studies have used village level data. However, no attempt has been made to use the district level data so far. It was thought that the state level and the district level data for the same period, if analysed, can throw better light on the situation.

Thus, an attempt has been made in the present study to remove some of the weaknesses of the earlier studies and to throw better light on this important topic.



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3 . METHODOLOGY

This chapter deals with the discussion on methodology adopted in the present study. It is designed to explain in brief the plan of investigation with special reference to the location of study, source of data and analytical tools adopted.

3.1 LOCATION OF THE STUDY:

As the title of the study indicates, this exercise is limited to the distribution of operational and ownership land holdings in Maharashtra State. The holding-wise information at lower levels of administration was thought to be helpful in accomplishing the objectives of the study. Therefore, in addition to state level analysis, the study is extended to analysing the district level information available in the Agricultural Census Reports. So far, there are four Agricultural Censuses conducted in Maharashtra, the first being in 1970-71 as a part of the Third World Agricultural Census sponsored by the FAO and subsequent censuses of 1976-77, 1980-81 and 1985-86. The second Agricultural Census (1976-77) was the sample Agricultural census sponsored by the Government of India. It was undertaken with the view to assess the changes in the structure of agricultural holdings due to rigorous implementation of Land Ceiling Act during the period 1974-76. The census of 1980-81 was a part of the Third World Agricultural Census and the 1985-86 was again a sample census on the lines of 1976-77.

Several attempts were made in the past to know the structure of land holdings in Indian Agriculture through sample surveys. The Agricultural Labour Enquiry Committee Reports, 1954, the 8th , 16th and 17th rounds of the National

Sample Survey (NSS) were amongst them. These surveys were based on small sample and did not contain detailed information. They did not cover other aspects like land use, irrigation, cropping intensity, land tenancy, *etc.* for different size classes. Therefore, the data collected through these sample surveys are not considered in the present study.

In order to study the structural changes in land holdings, the information on number of holdings and area owned or operated forms a base. The structural distribution of land holdings is affected by various factors such as population growth, laws of inheritance, Government policies such as land reforms, irrigation facilities extended to the farms, cropping pattern, *etc.* On few factors like tenancy, land use, irrigation and cropping pattern, the information available in the census reports was made use of in the present study.

3.2 SOURCES OF DATA:

The present study is based on the secondary data available in the decadal Agricultural Census Reports for the State of Maharashtra. The first comprehensive decadal census was for the year 1970-71 and the subsequent was for the year 1980-81. In addition to these decadal censuses, there were two more censuses based on the sample study for the years 1976-77 and 1985-86. The data available in all the four census reports are made use of in the present study.

The census data on the structural distribution of land holdings is available not only by absolute number of holdings and area in different size classes of operational and ownership holdings but the percentage distribution is also available for different categories. Further, the operational holdings and the owned holdings are categorised into sub-categories. Thus, the compilation of these voluminous data suitably was big job for the researcher.

There was another problem. During 1980's new districts, viz. Sindhudurg, Jalna, Latur and Gadchiroli were formed by partitioning of Ratnagiri, Aurangabad, Osmanabad and Chandrapur districts, respectively. Thus, the total number of districts in the State which was 26 during 1970-71 census increased to 30 in 1980's. This problem was overcome by keeping the earlier number of districts constant by amalgamating the data appropriately. The data relating to 'Bombay Sub-Urban' district has been deleted in the analysis as it formed a smaller fragment in the totality and the area was also declining due to the urbanisation.

3.3 ANALYSIS OF DATA:

SIZE CLASSIFICATION:

The data available in the Agricultural Census Reports give a number of size-classes resulting in an increased volume of data. There was some variation in these size classes from census to census. This problem was overcome by forming a smaller number of uniform size-classes. Thus, the data available in the census reports were grouped into the following predetermined size classes, without deviating much from the classification in the census reports.

The following size-classes of holdings are uniformly used in the present analysis throughout.

Sr. No.	Category of holding	Area limits (hectares)
1	Marginal	Below 1
2	Small	1.01 to 2.00
3	Semi-medium	2.01 to 4.00
4	Medium	4.01 to 10.00
5	Large	10.01 and above

The data are analysed separately for the state level and the district level on more or less the same basis.

State Level Analysis:

The main objective of the present study is to analyse the changes in the distribution of operational and ownership holdings. Basically this analysis involves the changes in the number of holdings as well as the area under different size classes of holdings. However, there are again sub-categories under operational as well as ownership holdings. Sub-categories of operational holdings are 'individual operational holdings', 'joint operational holdings' and 'institutional operational holdings'. The ownership holdings are further categorised as 'wholly owned holdings', 'wholly rented holdings' and 'partly owned/rented holdings'. The analysis is done separately for each of these categories by absolute number as well as by area. Further, percentage distribution of number of holdings and the area is also analysed for each of the above categories separately.

The changes in the number ^{and} the area from one census to the other and for the complete period of 15 years have been analysed separately.

District Level Analysis:

The district level analysis of data was also done more or less on the same lines of the state level analysis. The data are analysed for the pre-determined size classes as indicated above. The information for the 25 districts was tabulated and then percentages to total in respect of number and area of farm size-groups were worked out. The changes from census to census and for the total period of 15 years were also analysed district-wise.

On analysing the district level data, it was observed that certain changes in the structural distribution of holdings had taken place in many districts

belonging a particular region. Hence, an attempt has also been made to collate the data for different regions of the state. It has been analysed separately.

The tabular method of analysis was used in the analysis of all the above aspects under study.

Measures of Inequality:

There are number of statistical tools to measure the inequality in the distribution of land holdings. Gini concentration ratio, Lorenz curve, coefficient of variation, Standard Deviation of logs, etc. are some such measures. Use of these measures depends largely on the problem under study and the specific issues which are required to fulfill the objectives of the study. In the context of distribution of land holdings in India, the index that is mostly used is the Gini Concentration Ratio. It may be mentioned that the Gini concentration ratio is the most widely used index, although recently some authors have drawn attention to certain drawbacks of this measure. For instance, it is argued that Gini concentration ratio throws light on overall concentration but fails to identify the parts of distribution to which the concentration is mainly due (Vyas, 1979).

In the present study two measures of inequality *viz.* Gini Coefficient and Lorenz curve have been used. Lorenz curves have been drawn for analysing the pattern of distribution of holdings by size classes and its changing direction and magnitude for the four census periods under study (1970-71, 1976-77, 1980-81 and 1985-86). The following empirical formula has been adopted for calculating the Gini Coefficient.

Gini Coefficient (G.C.)

$$\text{G.C.} = 1 - \frac{\sum X_i (Y_i + Y_{i-1})}{(100)^2}$$

where,

X_i = Percentage of number of operational holdings for the i^{th} size class.

Y_i = Cumulative percentage of area of operational holdings upto i^{th} size-class.

Y_{i-1} = Cumulative percentage of area of operational holdings for $(i-1)^{\text{th}}$ size class

Gini coefficient gives an idea about overall concentration from which concentration of land distribution over the period (Agricultural census) could be observed. However, it speaks nothing about the farm size wise land distribution and therefore does not account the farm size group-wise changes (marginal, small, semi-medium, medium and large) in the distribution of land holdings. Therefore, so as to examine the farm size group-wise distribution and direction of changes over the Agricultural Census periods, Lorenz curve technique for number and area of operational holdings was applied.

Lorenz curve is the graphical representation of cumulative percentage of number or area of operational holdings of farm size groups, viz., marginal, small, semi-medium, medium and large.

To obtain the Lorenz curve steps involved are:

- i. The cumulative percentages of the number and area of farm size groups in ascending order of holding (i.e., marginal, small, semi-medium, medium and large) were worked out.
- ii. The cumulative percentage number of holdings on horizontal axis (X-axis) and cumulative percentage area of holdings on vertical axis (Y-axis) with appropriate scale (1 mm = 1 per cent) formed the base for Lorenz Curve.

- iii. The cumulative percentage for number and corresponding figure for area of size class of holdings were plotted and connected by sharp line.

The changes in land use, irrigation and cropping pattern were also studied. A simple tabular analysis was done in this case also. An attempt was made to identify the possible factors affecting the changes in the structural distribution of land holdings.



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4 . CHANGES IN THE STRUCTURAL DISTRIBUTION OF OPERATIONAL AND OWNERSHIP HOLDINGS IN MAHARASHTRA STATE

4.1 GENERAL:

One of the important objectives of the present study is to analyse the changes in the distribution of ownership and operational holdings in the state of Maharashtra. As already indicated these two categories of holdings are further sub-categorized as individual operational holdings, joint operational holdings, institutional operational holdings, wholly owned holdings, wholly rented holdings ^{and} partly owned/rented holdings. The state level changes in the distribution of holdings in all these categories have been analyzed in this chapter. Analysis of changes is carried out both for the number of holdings and the area under that category separately. Percentage distribution of holdings and the changes therein has also been attempted. The data relating to four censuses are compared for ascertaining the changes. Agricultural census reports define operational holdings as "all land which is wholly or partly used for agricultural production and is operated as one technical unit by one person alone or with others without regards to title, legal form, size or location". Here the technical unit is the unit which under the same management has the same means of production such as labour force, machinery and animals. The holding may consists of one or more territorial divisions provided that all these separate parcels form a part of the same technical unit. The holding may consist of one or more survey numbers of land provided all the searate survey numbers form a part of the same technical unit and are situated in the same tahsil. If an

operator is cultivating lands located in two different tahsils, the lands located in one tahsil taken together comprise one operational holding, while those in the other tahsil form a second operational holding. Distribution of operational holdings in different size categories for the four Agricultural Censuses (1970-71, 1976-77, 1980-81 and 1985-86) for Maharashtra state is examined here.

4.2 OPERATIONAL HOLDINGS:

4.2.1 Changes in the Distribution of Number and Area of Operational Holdings:

The changes in the number and the area of operational holdings by size groups for the above mentioned years are presented in Table 4.1.

Table 4.1 Size groupwise distribution of the number and area of operational holdings in Maharashtra during 1970-71, 1976-77, 1980-81, 1985-86

(Figures in thousand)

Size classes of holdings	Number of holdings				Area of holdings (ha)			
	70-71	76-77	80-81	85-86	70-71	76-77	80-81	85-86
Marginal (below 1 ha)	1241.92 (25.09)	1505.43 (26.12)	1925.93 (28.06)	2488.04 (30.71)	577.58 (2.73)	706.16 (3.35)	973.31 (4.56)	1231.60 (5.77)
Small (1.01-2.00 ha)	876.27 (17.74)	1142.09 (19.81)	1540.85 (22.45)	2103.62 (25.97)	1284.16 (6.06)	1675.58 (7.94)	2333.71 (10.92)	3134.61 (14.68)
Semi-medium (2.01-4.00 ha)	1087.15 (21.96)	1339.49 (23.24)	1685.79 (24.57)	1956.96 (24.16)	3130.65 (14.78)	3832.79 (18.16)	4817.81 (22.56)	5520.36 (25.85)
Medium (4.00-10.0 ha)	1229.16 (24.83)	1351.76 (23.45)	1391.74 (20.28)	1316.81 (16.25)	7717.35 (36.44)	8337.79 (39.51)	8449.23 (39.55)	7862.13 (36.82)
Large (Above 10.01ha)	514.12 (10.38)	425.53 (7.38)	318.16 (4.64)	235.89 (2.91)	8469.68 (39.99)	6252.43 (31.04)	4787.57 (22.41)	3603.36 (16.88)
Total	4950.62 (100.00)	5764.30 (100.00)	6862.47 (100.00)	8101.31 (100.00)	21189.42 (100.00)	21104.75 (100.00)	21361.63 (100.00)	21352.06 (100.00)

(Figures in parentheses are percentages to the total)

It can be noted from the Table 4.1 that the absolute number of holdings had shown an increasing trend from 1970-71 to 1985-86. The total number of

holdings in the state was 49.51 lakh in 1970-71 which increased to 81.01 lakh in 1985-86. The number of holdings in the categories of 'marginal' and 'small' also showed increasing trend both in absolute number as well as the percentage to the total. In the 'semi-medium' group, the number showed an increasing trend, but the percentage did not change very much and showed slight decline during 1985-86 as compared to that in 1980-81. The 'medium' size group showed increasing trend in the absolute number till 1980-81 but slight decline during 1985-86 and the percentage showed a definite declining trend from 1970-71 to 1985-86. In 'large' size group, both number and the percentage showed a declining trend. This indicated that 'medium' and 'large' sized holdings were being splitted up to form 'marginal' and 'small'. Of course we cannot definitely throw light as to what was happening at the holding level. It is only a broad indication.

Disparity in the distribution of area amongst different size-classes was very clear during all the census years. From 1970-71 to 1985-86, the absolute area as well as its proportion to the total showed an increasing trend in marginal, small and semi-medium size classes. In the medium size class, however, the area as well as the percentage to total showed an increasing trend from 1970-71 to 1980-81. However, both area and percentage declined during 1985-86. It may be that in recent years medium holdings are being splitted up and came in the category of 'small' farmers. It may be for taking the advantage of Government schemes for small farmers exemption of land revenue, etc. A substantial increase was noted in the area and its proportion during 1985-86 as compared to that in 1980-81. The area as well as the percentage to total in the medium and large size classes showed a declining trend from 1970-71 to 1985-86. The latest position (1985-86) in Maharashtra showed that there were 30.71 per cent marginal farmers who operated 5.77 per cent of the total land. There

were 25.97 per cent small farmers who operated 14.68 per cent of the total area. Of the total number, 16.25 per cent were medium sized holders and 2.91 per cent large land holders who operated 36.82 per cent and 16.88 per cent of the total land, respectively.

4.2.2 Percentage Changes in the Number and Area of Operational Holdings:

The percentage change (both number of holdings and area) from Census to Census was analyzed and it was compared with the previous census. The results (Table 4.2) showed that the number of marginal and small holdings had an increasing trend from 1970-71 to 1985-86. The number of semi-medium holdings increased between 1980-81 and 1976-77 as compared to the earlier 5 year period. However, the percentage declined for 1985-86 over 1980-81 as compared to earlier period. The number of medium and large holdings showed continuous decline during the 3 periods under consideration. During 1985-86, the change was negative. The overall change in the number of holdings, *i.e.* in 1985-86 over 1970-71 indicated the largest change in small holdings. The number of holdings in small sized category increased by 139.52 per cent during this period. It was followed by marginal holdings (100.34 per cent) and semi-medium holdings (80.00 per cent). During the period (1985-86 over 1970-71), the number of medium sized holdings increased only by 7 per cent, while there was drastic reduction in the number of large holdings (-54.12 per cent).

As regards the percentage change in area, the picture was more or less the same as observed for the changes in the number of holdings. The change was substantial in small holdings in all the three five year periods. It was followed by marginal and semi-medium size classes. Medium and large holdings showed declining trend and more drastically in large size class during the period from 76-77 to 80.81.

Table 4.2 Percentage changes in the number and area of operational holdings by size groups in Maharashtra from 1970-71 to 1985-86.

Size classes of holdings	Percentage change in the number of holdings in				Percentage change in the area of holdings in			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
Marginal	21.22	27.93	29.19	100.34	22.26	37.83	26.54	113.23
Small	30.04	34.91	36.52	139.52	30.48	39.28	34.32	144.10
Semi-medium	23.21	25.85	16.09	80.00	22.43	25.70	14.58	76.33
Medium	9.97	2.96	-5.38	7.13	8.04	1.34	-6.95	1.88
Large	-17.23	-25.23	-25.86	-54.12	-22.64	-26.93	-24.74	-57.46

The overall percentage change, *i.e.*, during 1985-86 over 1970-71 in the operational area indicated that the operational area of small holdings has increased by 144.10 per cent while that of marginal holdings by 113.23 per cent. It was followed by semi-medium holdings (76.33 per cent). There was a slight increase in the operational area of medium holdings (1.88 per cent) while there was substantial decline in the operational area of large holdings (-57.46 per cent). This corroborates the results of changes in respect of number of operational holdings discussed earlier.

The above analysis of the operational holdings reveals the following:

- i. The total number of operational holdings in the state had increased from 49.51 lakh in 1970-71 to 81.01 lakh in 1985-86 with the corresponding increase in the area from 211.89 lakh hectares to 213.86 lakh hectares.
- ii. The operational holdings in the categories of marginal, small and semi-medium showed an increase both in number as well as area during the period from 1970-71 to 1985-86 against the decline in number and area under medium and large size groups.
- iii. Both the number of holdings and their area increased above 100 per cent in marginal group, above 140 per cent in small group, about 80 per cent in semi-medium group and only about 8 per cent in medium group during the period from 1970-71 to 1985-86. However,

there was a decline of about 50 per cent in large holdings during the same period.

- iv. In spite of the above the disparity in the distribution of land persisted in all the census years. The latest position (1985-86) showed that 30.71 per cent of the marginal farmers operated only 5.77 per cent of the total land and only 2.91 per cent of large land holders operated as much as 16.88 per cent of the total land.

4.2.3 Types of Operational Holdings:

Holdings are classified into three types according to the manner in which they were operated:

- i. Individual holdings;
- ii. Joint holdings; and
- iii. Institutional holdings.

Individual operational holdings:

The concept of holding used in the census is one of the individuals as against a family holding. If more than one individual member of the same household held land in their individual names (and were shown in the record as such), their holdings were considered to constitute as separate holdings in case they were operated independently.

Joint operational holdings:

Land held and operated jointly by two or more individuals belonging to separate households constitute a joint holding. If the land was held jointly but shares of partners are specified, such land did not constitute a joint holding.

Institutional operational holding:

Land held by an institution (like State Farming Corporation, Research Station, Seed Farms, Sugar factories, Trust, Devasthan or Temple and Others)

and cultivated under its management was included under the category of institutional holdings.

All the three types of above mentioned holdings were examined for changes and percentage changes during the four census periods. The distribution of holdings by number and area for different categories of operational holdings is presented in Table 4.3.

Table 4.3 Distribution of the holdings by number and area for different categories of operational holdings in Maharashtra.

(Figures in thousand)

Category	Number of holdings				Area of holdings (ha)			
	70-71	76-77	80-81	85-86	70-71	76-77	80-81	85-86
Individual holdings	4815.10 (97.26)	5625.39 (97.59)	6468.62 (94.27)	7789.60 (96.15)	20464.76 (96.63)	20413.17 (96.72)	19923.74 (93.27)	20249.15 (94.83)
Joint holdings	135.52 (2.74)	132.16 (2.29)	383.23 (5.58)	302.09 (3.73)	714.66 (3.37)	575.57 (2.72)	1328.43 (6.22)	969.36 (4.53)
Institutional holdings	-	6.75 (0.12)	10.62 (0.15)	9.62 (0.12)	-	116.01 (0.56)	109.46 (0.51)	133.59 (0.64)
Total operational holdings	4950.62 (100.00)	5764.30 (100.00)	6862.47 (100.00)	8101.31 (100.00)	21179.42 (100.00)	21104.75 (100.00)	21361.63 (100.00)	21352.06 (100.00)

Figures in the parentheses are percentages to the total.

The largest proportion of holdings belonged to the category of individual holdings, (96.15 per cent in 1985-86). The absolute number of holdings in this category showed continuous increase from 1970-71 to 1985-86. The area operated by this category also showed increasing trend during the period. A slight variation was observed in the percentage figures. The joint holdings and institutional holdings were very less in number and also operated relatively less area as compared to individual holdings. The joint holdings showed a sudden increase (both number and area) during 1980-81.

The latest picture for 1985-86 showed that the total 81.01 lakh holdings, 77.90 lakh holdings were 'individual' holdings (96.15 per cent), 3.02 lakh (3.73

per cent) were 'joint' holdings and only 9600 (0.12 per cent) holdings were 'institutional' holdings. The area operated by these categories was 202 lakh hectares (94.83 per cent), 9.69 lakh hectares (4.53 per cent) and 1.33 lakh hectares (0.64 per cent), respectively.

Each of these categories of operational holdings are further analyzed according to size groups of holdings.

4.2.4 Changes in the Distribution of Individual Operational Holdings According to Size Groups of Holdings:

Aggregate level data for the operational holdings given in Table 4.1 has been further analyzed for the different categories, viz., individual operational holdings, joint holdings and institutional holdings separately.

The information in respect of distribution of individual operational holdings is presented in Table 4.4.

Table 4.4 Distribution of the individual operational holdings (number and area) in different size groups of holdings in Maharashtra.

Size classes of holdings	Figures in thousand							
	Number of holdings				Area of holdings (ha)			
	70-71	76-77	80-81	85-86	70-71	76-77	80-81	85-86
Marginal	1213.10 (25.19)	1472.04 (26.17)	1812.02 (28.01)	2400.19 (30.81)	564.75 (2.76)	691.02 (3.39)	920.05 (4.62)	1188.64 (5.87)
Small	856.26 (17.78)	1116.16 (19.84)	1460.77 (22.58)	2032.19 (26.09)	1252.32 (6.12)	1637.53 (8.02)	2219.29 (11.14)	3028.19 (14.95)
Semi-medium	1056.78 (21.95)	1308.01 (23.25)	1597.30 (24.69)	1884.59 (24.19)	3043.45 (14.87)	3742.55 (18.33)	4564.68 (22.91)	5312.63 (26.24)
Medium	1193.00 (24.78)	1318.18 (23.43)	1307.75 (20.22)	1255.25 (16.12)	7491.11 (36.61)	8130.92 (39.83)	7931.84 (39.81)	7483.47 (36.96)
Large	495.96 (10.30)	411.00 (7.31)	290.78 (4.50)	217.38 (2.79)	8113.12 (39.64)	6211.15 (30.43)	4287.88 (21.52)	3236.22 (15.98)
Total	4815.10 (100.00)	5625.39 (100.00)	6468.62 (100.00)	7789.60 (100.00)	20464.75 (100.00)	20413.17 (100.00)	19923.74 (100.00)	20249.15 (100.00)

Figures in parentheses are percentages to the total.

As indicated earlier, the individual operational holdings was the most important category and the number of holdings showed an increasing trend at the aggregate level. There was a clear declining trend in the number of holdings as we moved from marginal to large holdings (30.81 per cent to 2.79 per cent) during the census ending in 1985-86.

The farm size groupwise changes in the number of individual holdings revealed that marginal, small and semi-medium size-groups showed an increasing trend over a period; whereas medium and large size group holdings declined during the period under study. For the total period from 1970-71 to 1985-86, the number of holdings in marginal size group increased 2 times, small size group^o 2½ times as compared to that in 1970-71. The large size group showed declining trend from 495.96 thousand to 217.38 thousand and medium size group indicated mixed trend, i.e. 125 thousand increase in 1976-77 and 10 and 52 thousand decline for 1980-81 and 1985-86 over the previous census, respectively.

As regards the distribution of area amongst different size groups of holdings, the area of small, marginal and semi-medium size groups increased 2.41 times, 2.10 times and 1.75 times in 1985-86 over 1970-71, respectively. The large size group showed declining trend in the area from 8113.12 thousand hectares in 1970-71 to 3236.22 thousand hectares in 1985-86.

The medium and large size group having 35.08, 30.74, 24.72 and 18.91 percentage of holdings occupied 76.25, 70.26, 61.33 and 52.94 per cent of the total operational area in 1970-71, 1976-77, 1980-81 and 1985-86, respectively. Thus, the results confirm the general statement that there is an inequitable distribution of land among the farm size groups.

So as to get the idea about the periodical changes in number and area of individual holdings per cent change over the preceding agricultural census was thought to be useful. Therefore the same is analyzed below.

4.2.5 Percentage Changes in the Individual Operational Holdings in Different Size Groups of Holdings:

The percentage changes over preceding census as well as for the whole period were worked out and the same are presented in Table 4.5.

Table 4.5 Percentage changes in the number and area of individual operational holdings by size groups in Maharashtra from 1970-71 to 1985-86.

Size classes of holdings	Percentage change in number of holdings in				Percentage change in the area of holdings in			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
Marginal	21.34	23.10	32.46	98.02	22.36	33.14	29.19	110.47
Small	30.35	30.87	39.12	137.33	30.76	35.53	36.45	141.81
Semi-medium	23.77	22.12	17.99	78.33	22.97	21.97	16.39	74.56
Medium	10.49	-0.79	-04.01	5.22	8.54	-2.45	-5.65	-0.10
Large	-17.13	-29.25	-25.24	-56.17	-23.44	-30.96	-24.53	-60.11

The percentage changes in the number of holdings in the different size classes, for a particular census year over previous census revealed that the percentage was increasing in respect of marginal and small farmers. The largest increase (39.12 per cent) was noted in small size group during 1985-86 over 1980-81.

Further, the results indicate that the largest increase in the number of individual holdings for 1985-86 over 1970-71 was observed in small size group (137.33 per cent) followed by marginal holdings (98.02 per cent), semi-medium (78.33 per cent) and medium (5.22 per cent) holdings. The change in the area held by these holdings indicated more or less similar picture for that period (1985-86 over 1970-71). The small size group showed an area increase of 141.81 per cent. It was followed by the marginal holdings group (110.47 per cent) and

semi-medium group (74.56 per cent). The area of large size group declined considerably (-60.11 per cent).

The analysis clearly indicates that the inequality of land distribution has decreased in 1985-86 as compared to that in 1970-71.

Thus, among the types of operational holdings, individual operational holdings dominated in all the census. In 1985-86, the number of holdings in this category formed 96.15 while the area was 94.83 per cent of the total number of operational holdings. During the period of 15 years the number of marginal holdings in the category of individual holdings doubled, small holdings increased $2\frac{1}{2}$ times and semi-medium by 1.80 times. The large holdings declined to half.

4.2.6 Changes in the Distribution of Number and Area of Joint Operational Holdings :

Farm size group wise distribution of joint operational holdings in different size classes of holdings is presented in Table 4.6.

Table 4.6 Distribution of the joint operational holdings (number and area) in different size groups of holdings in Maharashtra.

(Figures in thousand)

Size classes of holdings	Number of holdings				Area of holdings (ha)			
	70-71	76-77	80-81	85-86	70-71	76-77	80-81	85-86
Marginal	28.83 (21.28)	31.45 (23.80)	110.95 (28.95)	85.56 (28.32)	12.83 (1.79)	14.34 (2.49)	52.09 (3.92)	41.84 (4.32)
Small	22.01 (16.24)	24.97 (18.89)	78.66 (20.53)	70.19 (23.23)	31.85 (4.46)	36.67 (6.37)	112.37 (8.46)	104.61 (10.79)
Semi-medium	30.36 (22.40)	30.43 (23.03)	86.73 (22.63)	70.68 (23.40)	87.19 (12.20)	87.23 (15.16)	248.19 (18.68)	202.81 (20.92)
Medium	36.16 (26.68)	32.34 (24.47)	81.54 (21.28)	59.33 (19.64)	226.24 (31.66)	198.89 (34.55)	501.42 (37.75)	364.78 (37.63)
Large	18.16 (13.40)	12.97 (9.81)	25.35 (6.61)	16.33 (5.41)	356.55 (49.89)	238.44 (41.43)	414.36 (31.19)	255.32 (26.34)
Total	135.52 (100.00)	132.16 (100.00)	383.23 (100.00)	302.09 (100.00)	714.66 (100.00)	575.57 (100.00)	1328.43 (100.00)	969.36 (100.00)

Figures in parentheses are percentages to the total.

There was a clear increasing trend both in number and area of joint operational holdings belonging to marginal, small and semi-medium holdings from 1970-71 to 1980-81. It was interesting to note that there was decline in the year 1985-86 over 1980-81 in all the categories. It is necessary to find out the reasons for the same, which has been attempted latter. The medium and large farm size groups showed decline in both number and area during 76-77 and 85-86 over the respective preceding census years.

The latest position (1985-86) showed that there were 3.02 lakh joint operational holdings operating 9.69 lakh hectares of land in the state. During the preceding census, *i.e.* 1980-81, the figures were on higher side.

The percentage composition of the number of joint operational holdings showed increasing trend for farm size groups below 4 ha and declining trend for above 4 ha size group, *i.e.*, medium and large. However, the percentage of area showed increasing trend upto 10 ha size group and decreasing trend for the size class above 10 ha, *i.e.*, for large size group.

4.2.7 Percentage Changes in the Number and Area of Joint Operational Holdings:

The percentage changes in joint operational holdings are presented in Table 4.7. The number and area of joint operational holdings showed increase during the successive censuses over 1970-71 except for the year 1985-86 over 1980-81, for marginal, small and semi-medium size groups. The percentage change from census to census indicated that between 1970-71 and 1976-77, there was moderate increase in the number of joint holdings in marginal, small and semi-medium categories and decline in medium and large categories. However, the change was more drastic during 1976-77 and 1980-81. There was increase in the percentage of number of holdings in all the size-classes of holdings. During the period between 1980-81 and 1985-86 again the percentage of number

of holdings were reduced. The percentage change in the area also showed a similar picture.

Table 4.7 Percentage changes in the number and area of joint operational holdings by size groups in Maharashtra from 1970-71 to 1985-86.

Size classes of holdings	Percentage change the in number the of holdings in				Percentage change in the area of holdings in			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
	Marginal	9.09	252.78	-22.88	196.77	11.77	263.25	-19.68
Small	13.45	215.02	-10.77	218.90	15.13	206.44	-6.91	228.45
Semi-medium	0.23	185.01	-18.51	132.80	0.05	184.52	-18.28	132.61
Medium	-10.56	152.13	-27.24	64.08	-12.08	152.11	-27.25	61.24
Large	-28.58	95.45	-35.58	-10.08	-33.13	73.78	-38.38	-28.39

The change in the year 1985-86 over 1970-71 indicated that there was a substantial increase both in the number of holdings and the area of marginal, small, semi-medium and medium holdings and a decline in large sized joint holdings.

4.2.8 Changes in the Distribution of Number and Area of Institutional Operational Holdings:

The disaggregated level information on institutional holdings was not available for 1970-71 census. The available information for the latter period is presented in Table 4.8.

As indicated earlier, the number of institutionally operated holdings as well as the area were relatively less. The number of institutional holdings in all the categories increased during 1980-81 as compared to that in 1976-77. However, they showed little decline during 1985-86 with the exception of large size category, which showed little increase.

Table 4.8 Distribution of the institutional operational holdings (number and area) by different size groups of holdings in Maharashtra

(Figures in thousands)

Size classes of holdings	Number of holdings				Area of Holdings (ha)			
	70-71	76-77	80-81	85-86	70-71	76-77	80-81	85-86
Marginal	N.A.	1.94 (28.70)	2.95 (27.78)	2.29 (23.80)	N.A.	0.80 (0.69)	1.17 (1.07)	1.11 (0.83)
Small	N.A.	0.96 (14.20)	1.42 (13.37)	1.23 (12.79)	N.A.	1.39 (1.20)	2.05 (1.87)	1.82 (1.36)
Semi-medium	N.A.	1.05 (15.53)	1.76 (16.57)	1.69 (17.57)	N.A.	3.00 (2.59)	4.93 (4.51)	4.92 (3.68)
Medium	N.A.	1.24 (18.34)	2.46 (23.16)	2.23 (23.18)	N.A.	7.98 (6.88)	15.97 (14.59)	13.92 (10.42)
Large	N.A.	1.56 (23.23)	2.03 (19.12)	2.18 (22.66)	N.A.	102.84 (88.64)	85.33 (77.96)	111.82 (83.71)
Total	N.A.	6.75 (100.00)	10.62 (100.00)	9.62 (100.00)	N.A.	116.01 (100.00)	109.45 (100.00)	133.59 (100.00)

(Figures in the parentheses are percentages to the total)

A similar picture was observed for the area operated by the institutional holdings.

As per the 1985-86 census, there were 9.62 thousand institutional holdings operating the area of 133.59 thousand hectares.

4.2.9 Percentage Changes in the Number and Area of Institutional Holdings:

The percentage change as presented in Table 4.9 indicated that between 1976-77 to 1980-81, there was substantial increase in the number as well as the area of institutional holdings (exception of area of large holdings). However, the change during 1985-86 over 1980-81 showed the reverse trend, i.e., the number and the area declined. The large size group of holdings showed increase in both number of holdings and their area in 1985-86 over 1980-81. The decline in the same during 1980-81 as compared to 1976-77 was lesser than the increase in 1985-86. In the remaining size groups (i.e., below 10 ha) the decline in number

of holdings and their area during 1980-81 to 1985-86 was smaller one than the increase in the previous period.

Table 4.9 Percentage changes in the number and area of institutional operational holdings by size groups in Maharashtra 1970-71 to 1985-86

Size classes of holdings	Percentage change in the number of holdings in			Percentage change in the area of holdings in		
	80-81 over 76-77	85-86 over 80-81	85-86 over 76-77	80-81 over 76-77	85-86 over 80-81	85-86 over 76-77
	Marginal	52.06	-22.37	18.04	46.25	-5.13
Small	47.92	-13.38	28.12	47.48	-11.22	30.94
Semi-medium	67.62	-3.98	60.95	64.33	-0.20	64.06
Medium	98.39	-9.35	79.84	100.12	-12.84	74.44
Large	29.30	7.39	39.74	-17.02	31.04	8.73

4.3 OWNERSHIP HOLDINGS:

In countries like India, land as a form of assets assumes importance, particularly in rural areas. The land being a scarce commodity, increasing population leads to a wide spread tenancy system. Since an operational holding consists of land owned and leased in but excludes land leased out. The operational holdings indicates the occupancy status of the operator. In the Agricultural Censuses, the ownership holdings are further categorized into three classes, viz., wholly owned, wholly rented and partly owned / rented.

An owner is considered to be the owner of a piece of land, if he has the right of permanent heritable possession. Land owned or held in owner like possession include,

- a. Land held directly from Government under a grant, lease or assignment with right of
 - i. Permanent, heritable and transferable possession

ii. Permanent and heritable possession but with or without the right of transfer.

Distribution of ownership holdings in Maharashtra during the four Census periods under study by number and area is presented in Table 4.10

Table 4.10 Distribution of ownership holdings by number and area in different size groups of holdings in Maharashtra from 1970-71 to 1985-86

(Figures in thousand)

Particulars	Number of holdings				Area of Holdings (ha)			
	70-71	76-77	80-81	85-86	70-71	76-77	80-81	85-86
Wholly owned	4547.70 (91.86)	5509.72 (95.70)	6731.79 (98.10)	8030.02 (99.14)	18949.87 (89.51)	19833.63 (94.50)	20579.52 (97.50)	20951.97 (98.56)
Wholly rented	151.41 (3.06)	91.60 (1.60)	34.85 (0.50)	25.73 (0.32)	490.50 (2.32)	286.67 (1.36)	94.62 (0.45)	97.53 (0.45)
Partly owned/ rented	251.51 (5.08)	155.38 (2.70)	95.84 (1.40)	43.19 (0.54)	1728.85 (8.17)	866.85 (4.14)	431.48 (2.05)	210.00 (0.99)
Total	4950.62 (100.00)	5756.70 (100.00)	6862.48 (100.00)	8098.94 (100.00)	21169.22 (100.00)	20987.15 (100.00)	21105.62 (100.00)	21259.50 (100.00)

(Figures in parentheses are percentages to the total)

It can be revealed from Table 4.10 that there was predominance of wholly owned holdings in respect of both number and area. There was a clear increasing trend for successive censuses. It may be due to the better implementation of the Tenancy Legislations in the state. The total number of wholly owned holdings increased from 45.48 lakh in 1970-71 to 80.30 lakh in 1985-86 which constituted 91.86 per cent and 99.14 per cent of the total, respectively. The wholly rented and partly owned/ rented holdings together constituted 8.14 per cent of the total number of ownership holdings in 1970-71 which declined to 0.86 per cent of the total in 1985-86. The area of wholly owned holdings also showed increasing trend for the successive censuses. On the other hand, the area of wholly rented holdings and partly owned/rented holdings declined during the successive censuses.

The ownership holdings showed increase in the number from 49.51 lakh in 1970-71 to 80.99 lakh in 1985-86. The area owned by these holdings increased from 211.69 lakh hectares to 212.59 lakh hectares, respectively. Thus there was a substantial increase in the number under this category during 15 years period. However, the area did not increase to that extent.

This is the broad picture of distribution of ownership holdings categoriwise. It is necessary to analyse the same for different size classes of holdings which is attempted below.

4.3.1 Changes in the Distribution of Number and Area of Wholly Owned Holdings in Different Size Groups:

The size group wise distribution of wholly owned holdings by number and area is presented in Table 4.11.

Table 4.11 Distribution of the wholly owned holdings by number and area in different size groups of holdings in Maharashtra from 1970-71 to 1985-86

(Figures in thousands)

Size classes of holdings	Number of holdings				Area of Holdings (ha)			
	70-71	76-77	80-81	85-86	70-71	76-77	80-81	85-86
Marginal	1163.98 (25.59)	1453.06 (26.37)	1894.30 (28.14)	2471.43 (30.78)	540.18 (2.85)	680.33 (3.43)	956.60 (4.65)	1223.95 (5.84)
Small	816.62 (17.96)	1098.83 (19.94)	1515.52 (22.51)	2091.38 (26.04)	1194.54 (6.30)	1612.04 (8.13)	2296.11 (11.16)	3115.97 (14.87)
Semi-medium	1001.79 (22.03)	1281.68 (23.26)	1656.08 (24.60)	1939.91 (24.16)	2884.32 (15.22)	3666.72 (18.49)	4477.56 (21.76)	5470.99 (26.11)
Medium	1115.04 (24.52)	1281.82 (23.27)	1358.76 (20.19)	1299.41 (16.18)	6988.38 (36.88)	7896.30 (39.81)	8244.46 (40.06)	7755.88 (37.02)
Large	450.27 (9.90)	394.33 (7.16)	307.13 (4.56)	227.89 (2.84)	7342.45 (38.75)	5978.23 (30.14)	4604.79 (22.37)	3385.18 (16.16)
Total	4547.70 (100.00)	5509.72 (100.00)	6731.79 (100.00)	8030.02 (100.00)	18949.87 (100.00)	19833.63 (100.00)	20579.52 (100.00)	20951.97 (100.00)

(Figures in parentheses are percentages to the total)

The total number as well as the area of wholly owned holdings in the state showed an increasing trend from 1970-71 to 1985-86. This increasing trend for the successive census periods was clear in respect of farm size groups below 10 hectares, i.e., marginal, small, semi-medium and medium. Only the large size group of holdings (above 10 ha) showed a declining trend in the number from 4.50 lakh in 1970-71 to 2.28 lakh in 1985-86 and the decline in the owned area from 73.42 lakh hectares to 33.85 lakh hectares, respectively.

4.3.2 Percentage Changes in the Distribution of Number and Area of Wholly Owned Holdings:

Percentage changes in the number and area of wholly owned ownership holdings during different censuses and by size classes of holdings are presented in Table 4.12.

Table 4.12 Percentage changes in the number and area of wholly owned ownership holdings by different size groups in Maharashtra during different census periods

Size classes of holdings	Percentage change in the number of holdings in				Percentage change in the area of holdings in			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
Marginal	24.84	30.37	30.47	112.33	25.95	40.61	27.95	126.58
Small	34.56	37.92	38.00	156.10	34.95	42.44	35.71	160.85
Semi-medium	27.94	29.21	17.14	93.64	27.13	22.11	22.19	89.68
Medium	14.96	6.00	-4.37	16.53	12.99	4.41	-5.95	10.95
Large	-12.42	-22.11	-25.80	-49.39	-18.58	-22.97	-24.49	-53.90

Percentage changes in the ownership holdings in a particular census year over the preceding census year indicated that the number of marginal holdings had increased during all the census years. Relatively similar but greater changes were noted in case of small holdings. The change during 1985-86 over

1970-71 showed the highest increase (156.10 per cent) in small holdings. It was followed by the marginal holdings (112.33 per cent). Medium and large holdings showed declining trend in all the years under study.

The results indicated that the number and area of wholly owned holdings for farm size groups below 10 ha had increased during the successive census periods under study except in 1985-86 over 1980-81 for the medium size group. The highest increase in number and area over preceding census was for small size group and it ranged from 34.56 per cent to 38 per cent and 34.95 per cent to 42.44 per cent for number and area, respectively. The large size group, i.e., above 10 hectares showed declining trend for the complete study period both for number and area.

Thus, among the types of ownership holdings 'wholly owned' holdings was the predominant sub-category throughout the study period. In 1985-86, the number of holdings in this category formed 99.14 per cent of the total number of ownership holdings while the area was 98.56 per cent. During the period of 15 years, the number and area of small size group in the category of wholly owned holdings increased over 150 per cent followed by marginal, semi-medium and medium size groups. The large holdings declined to half.

4.3.3 Changes in the Distribution of Number and Area of Wholly Rented Holdings:

The distribution of wholly rented holdings by size classes (for number and area) during different census years is given in Table 4.13.

In Maharashtra, there were in all 151.41 thousand holdings having 490.50 thousand hectares of land in 1970-71 under this category. The number of wholly rented holdings declined to 25.73 thousand and the area declined to 97.53 thousand hectares in 1985-86. The decline was rapid during 1976-77 and 1980-81, as compared to their preceding censuses for both number and area. A large

Table 4.13 Distribution of the wholly rented ownership holdings by number and area in different size groups of holdings in Maharashtra from 1970-71 to 1985-86

(Figures in thousands)

Size classes of holdings	Number of holdings				Area of Holdings (ha)			
	70-71	76-77	80-81	85-86	70-71	76-77	80-81	85-86
Marginal	50.23 (33.17)	29.11 (31.78)	12.30 (35.29)	9.59 (37.27)	21.26 (4.33)	13.05 (4.55)	5.42 (5.73)	3.89 (3.99)
Small	28.88 (19.08)	17.94 (19.58)	7.84 (22.50)	4.76 (18.50)	41.11 (8.38)	25.91 (9.04)	11.23 (11.87)	7.18 (7.36)
Semi-medium	32.50 (21.46)	20.99 (22.92)	7.39 (21.21)	5.48 (21.30)	91.51 (18.66)	59.20 (20.65)	20.72 (21.90)	16.08 (16.49)
Medium	30.78 (20.33)	18.76 (20.48)	5.92 (16.99)	4.41 (17.14)	188.41 (38.41)	112.97 (39.41)	35.09 (37.09)	27.18 (27.87)
Large	9.02 (5.96)	4.80 (5.24)	1.40 (4.01)	1.49 (5.79)	148.21 (30.22)	75.54 (26.35)	22.16 (23.41)	43.20 (44.29)
Total	151.41 (100.00)	91.60 (100.00)	34.85 (100.00)	25.73 (100.00)	490.50 (100.00)	286.67 (100.00)	94.62 (100.00)	97.53 (100.00)

(Figures in parentheses are percentages to the total)

majority of these holdings were found to be concentrated in smaller size classes upto medium size.

Absentee landlordism was prevalent on a large scale in the past. However, due to tenancy act, many lands of such landlords went to the tenants. However, it is said that the concealed tenancy may be prevalent and it takes different forms.

4.3.4 Percentage Changes in the Distribution of Number and Area of Wholly Rented Holdings:

The percentage change in the number of such holdings from one census to another (as shown in Table 4.14) indicated that there was declining trend in all the size classes except the large one for 1985-86 over 1980-81. For the overall period (1970-71 to 1985-86) the decline was in the range of about 81 per cent to 86 per cent in different size groups. The change in the area of wholly rented holdings presented in a similar picture.

Table 4.14 Percentage changes in the number and area of wholly rented ownership holdings by different size groups of holdings in Maharashtra during different census periods

Size classes of holdings	Percentage change in the number of holdings in				Percentage change in the area of holdings in			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
Marginal	-42.05	-57.75	-22.03	-80.91	-38.62	-58.47	-28.22	-81.70
Small	-37.88	-56.30	-39.29	-83.52	-36.97	-56.66	-36.06	-82.53
Semi-medium	-35.42	-64.79	-25.85	-83.14	-35.31	-65.00	-22.39	-82.43
Medium	-39.05	-68.44	-25.51	-85.67	-40.04	-68.94	-22.54	-85.57
Large	-46.78	-70.83	6.43	-83.48	-49.03	-70.66	94.94	-70.85

The most probable reason for the above situation is the better implementation of the tenancy legislations. The practice of land leasing had been drastically reduced during the post-implementation period in Maharashtra. This has resulted in narrowing the gap between owned holdings and operated holdings in the state.

Thus, the wholly rented holdings showed decline by 81 to 86 per cent in all the size classes during 1970-71 and 1985-86. It might be the effect of rigorous implementation of the tenancy legislations in Maharashtra.

4.3.5 Changes in the Distribution of Number and Area of Partly Owned/Rented Holdings:

As discussed earlier partly owned/rented holdings constituted 5.08 per cent of the total ownership holdings in 1970-71 which declined to 0.54 per cent in 1985-86 whereas the area declined from 8.17 per cent to 0.99 per cent for the same period.

The distribution of these holdings by number and area in different size classes of holdings is presented in Table 4.15. There was a drastic decline in

the number and the area under this category over the period under study. The total number of these holdings was 2.52 lakh in year 1970-71 which was reduced to only 43 thousand in 1985-86. The total area under this category was also drastically reduced. Surprisingly, the largest number (30 per cent) of holdings in this category belonged to the 'medium' size class of holdings during all the census years. It was followed by the semi-medium class. Considering the area, the largest area was in the large size class followed by the medium size class for the earlier two census years. However, during the later two census years again medium size class was marginally ahead of the large size class.

Table 4.15 Distribution of the partly owned/rented ownership holdings in different size groups of holdings in Maharashtra from 1970-71 to 1985-86

(Figures in thousands)

Size classes of holdings	Number of holdings				Area of Holdings (ha)			
	70-71	76-77	80-81	85-86	70-71	76-77	80-81	85-86
Marginal	27.72 (11.02)	20.99 (13.51)	19.33 (20.17)	6.21 (14.38)	14.66 (0.85)	11.80 (1.36)	11.29 (2.62)	3.67 (1.75)
Small	32.77 (13.03)	24.14 (15.54)	17.49 (18.25)	7.46 (17.27)	47.36 (2.74)	35.92 (4.14)	26.37 (6.11)	11.46 (5.46)
Semi-medium	52.86 (21.02)	35.62 (22.92)	22.32 (23.29)	11.56 (26.77)	152.65 (8.83)	103.43 (11.93)	63.52 (14.72)	33.27 (15.84)
Medium	83.34 (33.14)	49.79 (32.04)	27.06 (28.23)	12.97 (30.03)	537.80 (31.11)	320.10 (36.93)	169.68 (39.33)	81.06 (38.60)
Large	54.82 (21.79)	24.84 (15.99)	9.64 (10.06)	4.99 (11.55)	976.38 (56.47)	395.60 (45.64)	160.62 (37.22)	80.54 (38.35)
Total	251.51 (100.00)	155.38 (100.00)	95.84 (100.00)	43.19 (100.00)	1728.85 (100.00)	866.85 (100.00)	431.48 (100.00)	210.00 (100.00)

(Figures in parentheses are percentages to the total)

4.3.6 Percentage Changes in the Distribution of Number and Area of Partly owned/Rented Holdings:

The per cent changes in partly owned/rented holdings in successive censuses are presented in Table 4.16. The percentages of partly owned/rented

Table 4.16 Percentage changes in the number and area of partly owned/rented ownership holdings by different size groups in Maharashtra during different census periods

Size classes of holdings	Percentage change in the number of holdings in				Percentage change in the area of holdings in			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
Marginal	-24.28	-7.91	-67.87	-77.60	-19.51	-4.32	-67.49	-74.96
Small	-26.33	-27.55	-57.34	-77.23	-24.15	-26.59	-56.54	-75.80
Semi-medium	-32.61	-37.34	-48.21	-78.13	-32.24	-35.59	-47.62	-78.21
Medium	-40.25	-45.65	-52.07	-84.44	-40.48	-46.99	-52.23	-84.93
Large	-54.69	-61.19	-48.24	-90.90	-59.48	-59.40	-49.86	-91.75

holdings both by number and area declined in all the periods under consideration.

Considering the change in the number of holdings during 1985-86 over 1970-71, the percentage was the highest in the large size group (-90.90 per cent). The change in the area in this size group was also the largest (-91.75 per cent). It was followed by the medium, semi-medium, small and marginal holdings both for number and area.

Thus, in 1970-71, the number of partly owned/rented holdings were 2.52 lakh (5.08 per cent) which was reduced to 43 thousand (0.54 per cent) in 1985-86. The corresponding decline in the area was from 17.29 lakh hectares (8.17 per cent) to 2.10 lakh hectares (0.99 per cent).

4.4 MEASURES OF INEQUALITY IN LAND DISTRIBUTION:

4.4.1 Gini Coefficient:

Inequality in the distribution of land holdings could be examined through various co-efficients of concentration. The most widely adopted index is Gini Co-efficient which has been used here. It throws light on the overall

concentration. Thus, it indicates the nature of distribution by using only one figure instead of many numbers. In the present analysis only one number represents the picture of five farm size groups for percentage of numbers and area of holdings. The Gini co-efficient is calculated for four census periods under study, viz., 1970-71, 1976-77, 1980-81 and 1985-86. The notational mathematical form of Gini's concentration is explained in the previous chapter (chapter-3). Using the formulae the results obtained are presented in Table 4.17.

Table 4.17 Gini's Co-efficient of inequality of land distribution in Maharashtra

Sr. No.	Year	Gini Co-efficient
1.	1970-71	0.5280
2.	1976-77	0.5104
3.	1980-81	0.4938
4.	1985-86	0.4899

The results indicated the four inequality indices computed with the help of four sets of data. The Gini Co-efficient for 1970-71 was 0.5280 which declined to 0.5104 in 1976-77 indicating that the inequality in the land distribution had decreased in 1976-77 as compared to that in 1970-71. Further, the Gini Co-efficient for 1980-81 declined to 0.4938 and to 0.4899 in 1985-86, indicating reduction in inequality continuously over the four Agricultural Census periods. For the total period (1970-71 to 1985-86), the Gini Co-efficient declined from 0.5280 to 0.4899. Thus, the inequality was reduced by 0.0381. The reduction in inequality was of the order of 0.0176 for 1970-71 to 1976-77, 0.0166 for 1976-77 to 1980-81 and 0.0039 for 1980-81 to 1985-86. The quantum of inequality

reduction was found to be declining for every succeeding census periods as compared to its preceding one. It can be concluded that the inequality in the distribution of structural holdings was declining at a decreasing rate.

4.4.2 Lorenz Curve:

Gini Co-efficient gives an idea about the overall inequality. It speaks nothing about group in which concentration is high or low. Therefore, to get an idea about the farm size-groupwise concentration of number of holdings and area of holdings, a different measure of inequality using graphical form is used. It is the Lorenz curve.

Lorenz Curve was drawn by adopting the following steps:

- i. Cumulative percentages of the number and area of operational holdings were worked out for the pre-determined farm size-groups, viz., marginal, small, semi-medium, medium and large.
- ii. The cumulative percentages of area were taken on vertical axis (Y axis) and farm size groupwise cumulative number of holdings were shown on horizontal axis (X axis)
- iii. With above units, the cumulative percentages of the number of holdings for all the farm size groups were plotted and joined by a sharp line with specific notation to distinguish the four Agricultural Censuses as shown on graph paper.

Thus, a curve obtained and a line of 45 degree angle was drawn to examine the inequality of structural distribution of number of holdings.

The same procedure was repeated for Lorenz Curve during the four Agricultural Census study period 1970-71, 1976-77, 1980-81 and 1985-86 as shown in Fig. 1. During the period of 15 years (1970-71 to 1985-86) an overall decreasing inequality was observed.

To recapitulate the whole, the following conclusions could be drawn.

Operational holdings:

1. The operational holdings ^{under} marginal, small and semi-medium size groups were increasing from 1970-71 to 1985-86 against the decline in medium and large size groups.
2. The disparity in the distribution of area amongst different size classes was very clear during all census years. The results confirm that there is an inequitable distribution of land among the size classes of holdings.
3. The largest proportion of operational holdings belonged to the category of 'individual' operational holdings followed by 'joint' and 'institutional' operational holdings.
4. The 'individual' operational holdings, the most important category, showed an increase in the number of holdings during 15 years (1970-71 to 1985-86) to the extent of double in marginal, 2.5 times in small, 1.80 times in semi-medium, little in medium size class and decline by more than half in large size class. More or less a similar trend was observed in area under this category. This analysis clearly indicates that the inequality in the land distribution was reduced to some extent in 1985-86 as compared to that in 1970-71.
5. There was a substantial increase in both the number and area of holdings below 10 ha and a decline in large size 'joint' operational holdings in the year 1985-86 over that in 1970-71.
6. The number of 'institutional' operational holdings in all the categories increased during 1980-81 as compared to that in 1976-77. However, they showed a little decline during 1985-86 with the exception of large size category, which showed little increase.

Ownership holdings:

1. The number of ownership holdings increased by 31.48 lakh and area by 0.90 lakh hectares during 1970-71 to 1985-86.
2. The predominant category of ownership holdings wholly owned holdings showed increase from 91.86 per cent in 1970-71 to 99.14 per cent in 1985-86 with area from 89.51 per cent to 98.56 per cent, respectively. Thus, there was substantial increase in both number and area of 'wholly owned' holdings.

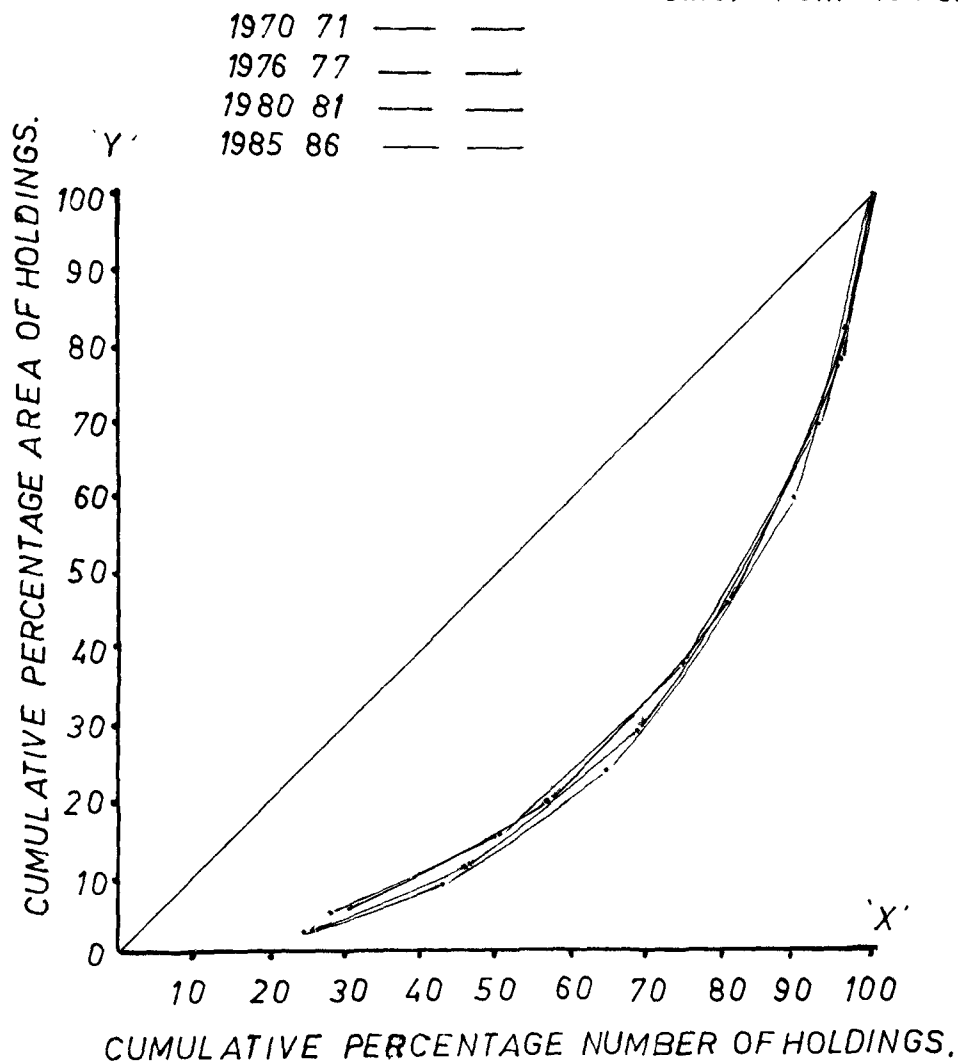
3. The wholly rented holdings showed decline by 81 to 86 per cent in all the size classes during 1970-71 to 1985-86. It might be the effect of rigorous implementation of the tenancy legislations in Maharashtra.
4. In 1970-71 the share of number of partly owned/rented holdings was 5.08 per cent reduced to 0.54 per cent in 1985-86 and the corresponding area from 8.17 per cent to 0.99 per cent, respectively.

The inequality in the land distribution measured by Gini Co-efficient which declined from 0.5280 in 1970-71 to 0.4899 in 1985-86. This declining inequality was also confirmed by Lorenz Curve.

FIG No 1

LORENZ CURVES FOR DISTRIBUTION OF
OPERATIONAL HOLDINGS IN
MAHARASHTRA STATE
(1970-71, 1976-77, 1980-81, 1985-86).

Scale:- 1 Cm = 10 Percent.



Chapter Opener Page

5 . CHANGES IN THE DISTRIBUTION OF OPERATIONAL AND OWNERSHIP HOLDINGS IN MAHARASHTRA : A DISTRICT LEVEL ANALYSIS

In the previous chapter, we analysed the changes in the structure of land holdings during different census periods using the state level data. In order to know which of the districts in the state have contributed towards the changes, the district level data were analysed. The same pattern for the analysis of operational and ownership holdings has been used here.

It may be pointed out here that after 1980 there was reorganization of districts in the State and few new districts were formed, viz., Sindhudurg, Jalna, Gadchiroli and Latur which were separated from districts Ratnagiri, Aurangabad, Chandrapur and Osmanabad, respectively, whereas Kulaba district was renamed as Raigad. In order to have better comparison, we have retained the old districts by merging the data for the new districts appropriately.

5.1 OPERATIONAL HOLDINGS:

5.1.1 Changes in the Distribution of Number of Operational Holdings in Different Districts:

The distribution of number of operational holdings in different size classes in different districts for the 4 census years is presented in Table 5.1 and discussed below by size classes.

i. Changes in the number of operational marginal holdings:

One can note that the number of operational marginal holdings showed an increasing trend in all the districts from 1970-71 to 1985-86. The preponderance

Table 5.1 Distribution of the number of operational holdings by size-classes in different district of Maharashtra

(Numbers in thousand)

District	Marginal (below 1 ha)				Small (1-2 ha)				Semi Medium (2-4 ha)			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	65.14 (45.52)	74.38 (46.13)	85.37 (46.95)	106.98 (51.13)	25.81 (18.03)	32.30 (20.03)	37.74 (20.76)	42.14 (20.14)	23.74 (16.52)	25.84 (16.03)	30.56 (16.81)	31.61 (15.11)
Kulaba	93.10 (51.69)	105.63 (54.08)	121.85 (56.10)	119.46 (57.22)	37.02 (20.55)	40.21 (20.58)	44.17 (20.33)	40.80 (19.54)	27.65 (15.35)	28.43 (14.55)	30.74 (14.15)	27.63 (13.24)
Ratna- giri	187.54 (48.39)	192.89 (48.38)	223.62 (48.78)	248.14 (42.44)	61.02 (15.74)	64.65 (16.22)	74.47 (16.24)	91.58 (15.66)	61.74 (15.93)	64.91 (16.28)	77.73 (16.96)	166.26 (28.44)
WESTERN MAHARASHTRA												
Nasik	39.71 (17.86)	50.28 (19.99)	61.81 (21.28)	85.20 (24.37)	36.58 (16.46)	45.49 (18.08)	56.14 (19.33)	85.38 (24.43)	54.32 (24.43)	64.30 (25.56)	79.92 (27.51)	95.69 (27.38)
Dhule	18.36 (12.32)	20.63 (12.53)	31.52 (15.33)	60.39 (20.45)	24.00 (16.10)	28.68 (17.45)	49.82 (24.07)	101.73 (34.44)	37.86 (25.40)	44.42 (27.02)	56.65 (27.37)	80.92 (27.40)
Jalgaon	41.93 (18.44)	46.14 (18.59)	55.69 (20.20)	77.61 (23.24)	54.45 (23.95)	60.32 (24.30)	72.62 (26.34)	108.83 (32.59)	60.80 (26.74)	69.38 (27.95)	74.67 (27.08)	89.68 (26.85)
Ahmed- nagar	44.00 (16.96)	67.87 (21.07)	93.90 (24.60)	133.50 (28.43)	42.16 (16.25)	61.52 (19.10)	83.07 (21.77)	127.17 (27.08)	60.84 (23.45)	82.60 (25.64)	108.57 (28.45)	128.58 (27.38)
Pune	79.59 (27.79)	98.34 (30.41)	112.84 (30.90)	147.81 (34.47)	50.91 (17.78)	61.59 (19.04)	77.75 (21.29)	97.73 (22.79)	62.01 (21.66)	70.59 (21.82)	85.91 (23.52)	97.73 (22.79)
Solapur	29.34 (13.44)	35.71 (14.64)	41.84 (15.59)	56.66 (16.68)	30.55 (13.99)	38.15 (15.64)	47.57 (17.73)	78.04 (22.97)	49.48 (22.67)	57.59 (23.61)	70.11 (26.13)	98.56 (29.01)
Sangli	109.56 (39.89)	134.29 (41.92)	183.07 (47.15)	266.11 (52.74)	55.04 (20.04)	68.21 (21.29)	86.64 (22.31)	118.27 (23.44)	54.81 (19.95)	63.74 (19.89)	71.71 (18.47)	80.89 (16.03)
Satara	72.69 (34.18)	87.73 (36.11)	111.60 (39.30)	159.89 (45.74)	42.21 (19.85)	50.54 (20.84)	62.42 (21.98)	79.23 (22.66)	43.81 (20.60)	50.49 (20.78)	58.43 (20.58)	65.09 (18.62)
Kolhapur	134.69 (50.24)	159.05 (52.60)	192.38 (56.90)	238.46 (62.13)	52.67 (19.63)	62.47 (20.66)	68.44 (20.24)	74.75 (19.47)	44.63 (16.64)	48.65 (16.09)	50.20 (14.85)	47.60 (12.40)
MARATHWADA												
Auranga- bad	19.78 (8.89)	32.26 (11.59)	52.73 (14.07)	96.85 (19.01)	29.49 (13.22)	47.98 (17.23)	78.94 (21.06)	146.53 (28.76)	53.52 (24.05)	76.89 (27.61)	111.09 (29.64)	155.16 (30.46)
Parabhani	12.71 (7.71)	24.66 (11.09)	30.83 (12.60)	51.58 (16.91)	20.15 (12.22)	39.03 (17.55)	53.17 (21.74)	85.13 (27.92)	38.39 (23.38)	59.84 (26.91)	74.51 (30.47)	93.40 (30.63)
Beed	16.48 (10.59)	32.55 (15.45)	46.02 (17.46)	78.35 (24.47)	21.71 (13.95)	39.46 (18.72)	57.00 (21.63)	84.35 (26.35)	36.51 (23.46)	53.27 (25.28)	75.81 (28.76)	85.46 (26.69)
Wanded	19.72 (12.13)	31.34 (15.64)	41.92 (17.97)	66.23 (21.21)	24.91 (15.32)	39.79 (19.86)	54.37 (23.30)	91.95 (29.44)	41.81 (25.72)	54.86 (27.39)	69.40 (29.75)	93.43 (29.91)
Osmanabad	13.39 (6.98)	20.95 (8.84)	32.09 (11.00)	50.05 (13.64)	22.85 (11.90)	38.62 (16.30)	58.62 (20.10)	88.60 (24.14)	43.60 (22.72)	60.72 (25.62)	79.14 (27.14)	110.15 (30.01)
VIDARBHA												
Buldhana	23.88 (15.53)	27.73 (15.42)	48.91 (20.75)	46.26 (19.57)	33.48 (21.78)	41.90 (23.30)	63.25 (26.84)	70.40 (29.79)	37.59 (24.45)	47.23 (26.26)	65.67 (27.87)	63.90 (27.04)
Akola	24.94 (14.93)	30.60 (15.18)	39.34 (16.05)	46.08 (18.00)	34.88 (20.88)	47.08 (23.34)	69.98 (28.55)	75.91 (29.66)	40.51 (24.25)	52.57 (26.06)	71.96 (29.36)	69.32 (27.09)
Amaravati	33.79 (19.49)	38.38 (18.85)	55.99 (21.64)	58.66 (20.86)	41.86 (24.14)	55.06 (27.05)	78.40 (30.30)	102.33 (36.38)	41.78 (24.09)	51.86 (25.47)	69.37 (26.80)	66.81 (23.75)
Yavatmal	4.59 (3.54)	5.63 (3.38)	15.54 (6.72)	19.59 (7.54)	15.48 (11.92)	29.67 (17.79)	56.35 (24.38)	74.75 (28.77)	31.57 (24.27)	45.78 (27.45)	76.98 (33.31)	87.75 (33.77)
Wardha	6.70 (8.29)	9.78 (9.78)	11.97 (9.81)	15.66 (11.94)	13.96 (17.27)	19.76 (19.75)	34.38 (28.18)	37.24 (28.43)	21.42 (26.50)	28.70 (28.69)	36.32 (29.75)	41.17 (31.40)
Nagpur	15.9 (12.23)	19.94 (13.18)	27.97 (15.38)	32.46 (16.68)	21.78 (17.53)	31.87 (21.07)	47.37 (26.04)	57.09 (29.34)	32.87 (26.46)	43.64 (28.85)	52.50 (28.86)	55.50 (28.53)
Bhandara	84.54 (43.53)	101.00 (46.13)	128.98 (49.84)	146.99 (52.41)	45.28 (23.32)	51.79 (23.65)	65.12 (25.17)	71.18 (25.38)	37.10 (19.10)	39.66 (18.12)	41.85 (16.17)	41.88 (14.93)
Chandra- pur	47.93 (24.28)	55.74 (25.76)	77.02 (29.24)	78.62 (27.78)	39.62 (20.08)	45.63 (21.09)	62.91 (23.88)	72.29 (25.54)	48.79 (24.72)	53.40 (24.68)	65.99 (25.05)	74.60 (26.36)

Table 5.1 (Continued....)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	20.35 (14.22)	21.30 (13.21)	21.76 (11.97)	23.02 (11.00)	8.17 (5.71)	7.41 (4.60)	6.38 (3.51)	5.49 (2.62)	143.11 (100.00)	161.23 (100.00)	181.81 (100.00)	209.24 (100.00)
Kulaba	17.25 (9.58)	16.44 (8.42)	16.64 (7.66)	17.25 (8.26)	5.09 (2.83)	4.63 (2.37)	3.82 (1.76)	3.63 (1.74)	180.11 (100.00)	195.34 (100.00)	217.22 (100.00)	208.77 (100.00)
Ratnagiri	56.74 (14.64)	56.75 (14.24)	63.39 (13.83)	60.85 (10.41)	20.51 (5.30)	19.46 (4.88)	19.19 (4.19)	17.86 (3.05)	387.55 (100.00)	398.66 (100.00)	458.40 (100.00)	584.69 (100.00)
WESTERN MAHARASHTRA												
Nasik	67.16 (30.21)	70.80 (28.15)	76.07 (26.18)	70.12 (20.06)	24.54 (11.04)	20.68 (8.22)	16.56 (5.70)	13.16 (3.76)	222.31 (100.00)	251.55 (100.00)	290.50 (100.00)	349.55 (100.00)
Dhule	53.25 (35.72)	57.35 (34.89)	61.08 (29.50)	47.22 (15.99)	15.59 (10.46)	13.29 (8.09)	7.93 (3.83)	5.08 (1.72)	149.06 (100.00)	164.37 (100.00)	207.00 (100.00)	295.34 (100.00)
Jalgaon	54.72 (24.07)	59.77 (24.08)	63.08 (22.87)	52.05 (15.58)	15.47 (6.80)	12.59 (5.08)	9.68 (3.51)	5.81 (1.74)	227.37 (100.00)	248.20 (100.00)	275.74 (100.00)	333.98 (100.00)
Ahmednagar	77.13 (29.73)	82.59 (25.64)	77.31 (20.26)	68.83 (14.65)	35.33 (13.61)	27.57 (8.55)	18.78 (4.92)	11.56 (2.46)	259.46 (100.00)	322.15 (100.00)	381.63 (100.00)	469.64 (100.00)
Pune	66.76 (23.31)	69.06 (21.35)	68.90 (18.87)	69.89 (16.30)	27.08 (9.46)	23.85 (7.37)	19.78 (5.42)	15.67 (3.65)	286.35 (100.00)	323.43 (100.00)	365.18 (100.00)	428.83 (100.00)
Solapur	70.31 (32.21)	76.61 (31.40)	80.83 (30.13)	83.44 (24.56)	38.62 (17.69)	35.89 (14.71)	27.95 (10.42)	23.04 (6.78)	218.30 (100.00)	243.95 (100.00)	268.30 (100.00)	339.74 (100.00)
Sangli	43.36 (15.79)	44.10 (13.76)	39.90 (10.27)	34.75 (6.89)	11.89 (4.33)	10.06 (3.14)	6.98 (1.80)	4.58 (0.90)	274.66 (100.00)	320.40 (100.00)	388.30 (100.00)	504.60 (100.00)
Satara	39.25 (18.44)	40.59 (16.70)	41.01 (14.44)	37.29 (10.67)	14.73 (6.93)	13.53 (5.57)	10.52 (3.70)	8.09 (2.31)	212.69 (100.00)	242.88 (100.00)	283.98 (100.00)	349.59 (100.00)
Kolhapur	29.95 (11.16)	27.20 (8.99)	23.43 (6.93)	20.33 (5.30)	6.26 (2.33)	5.01 (1.66)	3.67 (1.08)	2.69 (0.70)	268.30 (100.00)	302.38 (100.00)	338.12 (100.00)	383.83 (100.00)
MARATHWADA												
Aurangabad	80.24 (36.06)	92.46 (33.20)	107.79 (28.75)	97.67 (19.17)	39.57 (17.78)	28.87 (10.37)	24.29 (6.48)	13.26 (2.60)	222.54 (100.00)	278.46 (100.00)	374.84 (100.00)	509.47 (100.00)
Parabhani	61.04 (37.01)	75.65 (34.01)	74.29 (30.38)	67.50 (22.14)	32.62 (19.78)	23.23 (10.44)	11.17 (4.81)	7.32 (2.40)	164.91 (100.00)	222.41 (100.00)	244.57 (100.00)	304.93 (100.00)
Beed	52.55 (33.76)	62.03 (29.44)	69.54 (26.38)	62.03 (19.37)	28.40 (18.24)	23.42 (11.11)	15.20 (5.77)	9.99 (3.12)	155.65 (100.00)	210.73 (100.00)	263.57 (100.00)	320.18 (100.00)
Wanded	57.92 (35.62)	60.71 (30.31)	59.00 (25.29)	55.24 (17.69)	18.23 (11.21)	13.62 (6.80)	8.60 (3.69)	5.47 (1.75)	162.59 (100.00)	200.32 (100.00)	233.29 (100.00)	312.32 (100.00)
Osmanabad	71.80 (37.41)	82.76 (34.93)	93.60 (32.10)	98.32 (26.78)	40.29 (20.99)	33.90 (14.31)	28.17 (9.66)	19.95 (5.43)	191.93 (100.00)	236.95 (100.00)	291.62 (100.00)	367.07 (100.00)
VIDARBHA												
Buldhana	39.02 (25.38)	46.72 (25.98)	46.86 (19.87)	47.03 (19.90)	19.77 (12.86)	16.26 (9.04)	10.97 (4.66)	8.75 (3.70)	153.74 (100.00)	179.84 (100.00)	235.66 (100.00)	236.34 (100.00)
Akola	44.27 (26.50)	52.83 (26.19)	50.09 (20.43)	53.12 (20.76)	22.46 (13.44)	18.62 (9.23)	13.74 (5.61)	11.50 (4.49)	167.06 (100.00)	201.70 (100.00)	245.11 (100.00)	255.93 (100.00)
Amravati	39.08 (22.54)	44.78 (22.00)	45.10 (17.43)	44.94 (15.98)	16.88 (9.74)	13.50 (6.63)	9.92 (3.83)	8.51 (3.03)	173.39 (100.00)	203.58 (100.00)	258.78 (100.00)	281.25 (100.00)
Yavatmal	51.36 (39.55)	62.17 (37.28)	65.54 (28.36)	64.76 (24.92)	26.91 (20.72)	23.51 (14.10)	16.72 (7.23)	13.00 (5.00)	129.85 (100.00)	166.76 (100.00)	231.13 (100.00)	259.85 (100.00)
Wardha	26.63 (32.95)	32.49 (32.48)	32.49 (26.63)	31.75 (24.21)	12.12 (14.99)	9.30 (9.30)	6.86 (5.62)	5.27 (4.02)	80.83 (100.00)	100.03 (100.00)	122.02 (100.00)	131.13 (100.00)
Nagpur	39.60 (31.87)	44.72 (29.57)	45.06 (24.77)	42.86 (22.03)	14.80 (11.91)	11.08 (7.33)	9.01 (4.95)	6.65 (3.42)	124.24 (100.00)	151.25 (100.00)	181.91 (100.00)	194.56 (100.00)
Bhandara	22.31 (11.49)	22.42 (10.24)	19.97 (7.72)	18.37 (6.55)	4.97 (2.56)	4.07 (1.86)	2.85 (1.10)	2.05 (0.73)	194.20 (100.00)	218.94 (100.00)	258.77 (100.00)	280.47 (100.00)
Chandrapur	47.00 (23.82)	49.42 (22.83)	48.66 (18.47)	50.10 (17.70)	14.02 (7.10)	12.21 (5.64)	8.85 (3.36)	7.43 (2.62)	197.36 (100.00)	216.40 (100.00)	263.43 (100.00)	283.04 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the district.

of marginal holdings in 1985-86 was noted in Thana (51.13%), Kulaba (57.22%), Sangli (52.74%), Satara (45.74%), Kolhapur (62.13%) and Bhandara (52.41%). Considering all four census years, the number of marginal holdings were increasing. Considering 1970-71 and 1985-86 census years, more drastic changes had taken place in Nasik, Dhule, Ahmednagar, Satara, Sangli, Aurangabad, Parbhani, Beed, Nanded, Osmanabad, Yavatmal, Wardha and Nagpur where the number of marginal holdings had more than doubled. In some districts it had trebled.

ii. Changes in the number of operational small holdings:

Similar to marginal holdings, the number of small holdings showed an increasing trend for all the census years as compared to the previous census year in all the districts. In 1970-71, the proportion of small holdings in the total for the individual districts ranged from 11.90 per cent in Osmanabad to 24.14 per cent in Amaravati. During 1985-86, the proportion ranged from 15.66 per cent Ratnagiri to 36.38 per cent Amaravati. Comparing the number in 1970-71 and 1985-86, it can be noted that more drastic changes had taken place in the districts of Nasik, Dhule, Jalgaon, Ahmednagar, Solapur, Satara, Aurangabad, Beed, Nanded, Osmanabad, Buldhana, Akola, Amaravati, Yavatmal, Wardha and Nagpur where the number had doubled or even trebled in some districts.

iii. Changes in the number of operational semi-medium holdings:

With a few exceptions, all the districts had shown an increase in the number of semi-medium holdings from census to census. The proportion of semi-medium holdings in the total during 1970-71 ranged from 15.35 per cent in

Kulaba to 26.74 per cent in Jalgaon. In 1985-86 it ranged from 12.40 per cent in Kolhapur to 33.77 per cent in Yavatmal. Comparing the number of semi-medium holding in 1970-71 and 1985-86, more drastic increase had taken place in Ratnagiri, Dhule, Ahmednagar, Solapur, Aurangabad, Parbhani, Beed, Nanded, Osmanabad and Yavatmal, where the number had been doubled.

iv. Changes in the number of operational medium holdings:

The proportion of medium holdings in the total number of holdings varied from district to district and the range was from 9.58 per cent in Kulaba to 39.55 per cent in Yavatmal during 1970-71. Moderately increasing trend in number of medium holdings from census to census was noted in Thana, Kulaba, Solapur, Osmanabad, Buldhana and Yavatmal districts, while a clear declining trend was noted in Kolhapur and Bhandara districts. Many districts had shown drastic reduction in the number during 1985-86 as compared to that in 1980-81.

v. Changes in the number of operational large holdings:

The number of large holdings was relatively smaller as compared to other size-classes. The proportion of large sized holdings in 1970-71 ranged from 2.33 per cent in Kolhapur to 20.99 per cent in Osmanabad. In 1985-86, it ranged from 0.70 per cent in Kolhapur to 6.78 per cent in Solapur.

An attempt was made to calculate the percentage changes in the number of holdings from one census to the other and also the changes during the entire period of about 15 years (1970-71 to 1985-86). The data in this respect for all the districts is given in Table 5.2. The analysis is done by size classes of holdings separately.

Table 5.2 Percentage changes in the number of operational holdings by size-classes for different census periods in different districts of Maharashtra.

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	14.18	14.77	25.31	64.23	25.14	16.84	11.66	63.27	8.84	18.27	3.44	33.15
Kulaba	13.45	15.35	-1.95	28.31	8.61	9.85	-7.63	10.21	2.82	8.12	-10.12	-0.07
Ratnagiri	2.85	15.93	10.96	32.31	5.95	15.19	22.97	50.08	5.13	19.75	113.89	169.29
WESTERN MAHARASHTRA												
Nasik	26.62	22.93	37.84	114.55	24.36	23.41	52.08	133.41	18.37	24.29	19.73	76.16
Dhule	12.36	52.79	91.59	228.92	19.56	73.71	104.19	323.88	17.32	27.53	42.84	113.73
Jalgaon	10.04	20.70	39.36	85.09	10.78	20.39	49.86	99.87	14.11	7.62	20.10	47.50
Ahmednagar	54.25	38.35	42.17	203.41	45.92	35.03	53.09	201.63	35.76	31.44	18.43	111.34
Pune	23.56	14.74	30.99	85.71	20.98	26.24	25.70	91.97	13.84	21.70	13.75	57.60
Solapur	21.71	17.16	35.42	93.11	24.88	24.69	64.05	155.45	16.39	21.74	40.58	99.19
Satara	22.57	36.32	45.36	142.89	23.92	27.02	36.51	114.88	16.29	12.50	12.80	47.58
Sangli	20.69	27.21	43.27	119.96	19.73	23.51	26.93	87.70	15.25	15.73	11.40	48.57
Kolhapur	18.00	20.96	23.95	77.04	18.61	9.56	9.22	41.92	9.00	3.19	-5.18	6.65
MARATHWADA												
Aurangabad	63.09	63.45	83.67	389.64	63.03	64.53	85.62	397.89	43.66	44.48	39.67	189.91
Parabhani	94.02	25.02	67.30	305.82	93.70	36.23	60.11	322.48	55.87	24.51	25.35	143.29
Beed	97.51	41.38	70.25	375.42	81.76	44.45	47.98	288.53	45.90	42.31	12.73	134.07
Wanded	58.92	33.76	57.99	235.85	59.73	36.64	69.12	269.13	31.21	26.50	34.62	123.46
Osmanabad	56.46	53.17	55.97	273.78	69.01	51.79	51.14	287.74	39.27	30.33	39.18	152.64
VIDARBHA												
Buldhana	16.12	76.38	-5.41	93.72	25.14	50.95	11.30	110.27	25.64	39.04	-2.70	69.99
Akola	22.69	28.56	17.13	84.76	34.98	48.64	8.47	117.63	29.77	36.88	-3.67	71.12
Amaravati	13.58	45.88	4.77	73.60	31.53	42.39	30.52	144.46	24.13	33.76	-3.69	59.91
Yavatmal	22.65	176.02	26.06	326.80	91.67	89.92	32.65	382.88	45.01	68.15	13.99	177.95
Wardha	45.97	22.39	30.83	133.73	41.55	73.99	8.31	167.05	33.99	26.55	13.35	92.20
Nagpur	31.27	40.27	16.05	113.69	46.33	48.64	20.52	162.12	32.76	20.30	5.71	68.85
Bhandara	19.47	27.70	13.96	73.87	14.38	25.74	9.30	57.20	6.90	5.52	0.07	12.88
Chandrapur	16.29	38.18	2.08	64.03	15.17	37.87	14.91	82.46	9.45	23.58	13.05	52.90

Table 5.2 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	4.67	2.16	5.79	13.12	-9.30	-13.90	-13.95	-32.80	12.66	12.76	15.08	46.21
Kulaba	-4.70	1.22	3.66	-	-9.04	-17.49	-4.97	-28.68	8.46	11.20	-3.89	15.91
Ratnagiri	0.02	11.70	-4.01	7.24	-5.12	-1.39	-7.04	-12.92	2.87	14.98	27.55	50.86
WESTERN MAHARASHTRA												
Nasik	5.42	7.44	-7.82	4.41	-15.73	-19.93	-20.53	-46.37	13.15	15.48	20.33	57.23
Dhule	7.70	6.50	-22.70	-11.32	-14.75	-40.33	-35.94	-67.42	10.27	25.93	42.68	93.13
Jalgaon	9.23	5.54	-17.49	-4.88	-18.62	-23.12	-39.98	-63.44	9.16	11.09	21.12	46.89
Ahmednagar	7.08	-6.39	-10.97	-10.76	-21.97	-31.86	-38.45	-67.28	24.16	18.46	23.05	81.01
Pune	3.44	-0.23	1.44	4.69	-11.93	-17.06	-20.78	-42.14	12.95	12.91	17.43	49.76
Solapur	8.96	5.51	3.23	18.67	-7.07	-22.12	-17.57	-40.34	11.75	9.98	26.63	55.63
Satara	1.71	-9.52	-12.91	-19.86	-15.39	-30.62	-34.38	-61.48	16.65	21.19	29.95	83.72
Sangli	3.41	1.03	-9.07	-5.00	-8.15	-22.25	-23.10	-45.08	14.19	16.92	23.10	64.21
Kolhapur	-9.18	-13.86	-13.23	-32.12	-19.96	26.75	-26.70	-57.03	12.70	11.82	13.52	43.06
MARATHWADA												
Aurangabad	15.23	16.58	-9.39	21.72	-27.04	-15.86	-45.41	-66.49	25.13	34.61	35.92	128.93
Parabhani	23.88	-1.80	-9.14	10.58	-28.78	-51.92	-37.80	-77.56	34.87	9.96	24.68	84.91
Beed	18.04	12.11	-10.80	18.04	-17.53	-35.10	-34.46	-64.82	35.39	25.07	21.48	105.70
Wanded	4.81	-2.82	-6.37	-4.63	-25.29	-36.86	-36.39	-69.99	23.20	16.46	33.88	92.09
Osmanabad	15.26	13.10	5.04	36.93	-15.86	-16.90	-29.18	-50.48	23.46	23.07	25.87	91.25
VIDARBHA												
Buldhana	19.73	0.30	0.36	20.53	-17.75	-32.53	-20.24	-55.74	16.98	31.04	0.29	23.53
Akola	19.34	-5.19	6.05	19.99	-17.10	-26.21	-16.30	-48.80	20.73	21.52	4.41	53.20
Amravati	14.58	0.71	-0.35	14.99	-20.02	-26.52	-14.21	-59.58	17.41	27.11	8.68	62.21
Yavatmal	21.05	5.42	-1.19	26.09	-12.63	-28.88	-22.25	-51.69	28.42	38.60	12.43	100.11
Wardha	22.01	-	-2.28	19.22	-23.27	-26.24	-23.18	-56.52	23.72	21.98	7.47	62.23
Nagpur	12.92	0.76	-4.88	8.23	-25.14	-18.68	-26.19	-55.07	21.74	20.27	6.95	56.60
Bhandara	0.49	-10.93	-6.72	-70.64	-18.11	-29.97	-28.07	-58.75	12.73	18.19	8.38	44.42
Chandrapur	5.15	-1.54	2.96	6.60	-12.91	-27.51	-16.04	-47.00	9.65	21.73	7.44	43.41

i. Percentage change in the number of operational marginal holdings:

The percentage change in the number of marginal holdings during 1976-77 over 1970-71 showed that the increase was over 50 per cent in the districts of Ahmednagar, Aurangabad, Beed, Parbhani, Nanded, Osmanabad. The largest increase was noted for Beed district (97.51 per cent). Probably these districts had larger holdings earlier and the process of converting them into smaller ones was started. To some extent it might be due to the implementation of land reforms. Relatively less change was noted in Ratnagiri district (2.85 per cent increase) which was known for predominance of marginal and small holdings. During the period between 1976-77 and 1980-81 Dhule, Aurangabad, Osmanabad, Buldhana and Yavatmal districts showed higher increase (more than 50 per cent) in the number of marginal holdings. Thus, the process of diminution of holding was spread to Marathwada and Vidarbha region. The highest increase (176.02 per cent) was noted in Yavatmal district during this period.

During the period from 1980-81 to 1985-86 Kulaba and Buldhana districts showed little decline in the number of marginal holdings. It might be due to industrialization in Kulaba and sale of lands by marginal holders in Buldhana. More than 50 per cent increase in the number of marginal holdings was seen in Aurangabad, Parbhani, Beed, Nanded and Osmanabad districts (all from Marathwada region) and Dhule (Western Maharashtra).

It was interesting to note the changes during the entire period of 15 years from 1970-71 to 1985-86. The number had increased more than 300 per cent in Aurangabad, Parbhani, Beed and Yavatmal districts. The number was increased by more than 200 per cent in Dhule, Ahmednagar, Nanded and Osmanabad districts; while it was increased by more than 100 per cent in Nasik, Satara, Sangli, Wardha and Nagpur districts.

ii. Percentage change in the number of operational small holdings:

During the period from 1970-71 to 1976-77, the increase in the small holdings was more than 50 per cent in Aurangabad, Parbhani, Beed, Nanded, Osmanabad (all in Marathwada region) and Yavatmal district. Increase in the rest of the districts ranged from 5.95 per cent in Ratnagiri to 93.70 per cent in Parbhani. Considering the change during 1980-81 over 1976-77, the highest increase in the number was noted in Yavatmal district (89.92 per cent). It was followed by Wardha (73.99 per cent), Dhule (73.71 per cent), Aurangabad (64.53 per cent) and Osmanabad (51.79 per cent). In rest of the districts the increase ranged from 9.85 per cent in Kulaba to 50.95 per cent in Buldhana. During the period from 1980-81 to 1985-86, Kulaba district showed negative figure. The largest increase in the number of small holdings during the period was seen in Dhule district (104.19 per cent) followed by Aurangabad (85.62 per cent), Nanded (69.12 per cent) Solapur (64.05 per cent) and Parbhani (60.11 per cent).

iii. Percentage change in the number of operational semi-medium holdings:

The semi-medium holdings during 1970-71 to 1976-77 increased by less than 50 per cent in all the districts of the state except Parbhani (55.87 per cent). Among the rest, the largest increase was observed in Beed (45.90 per cent) and Aurangabad (43.66 per cent). This was followed by districts of Vidarbha region in decreasing order, viz., Yavatmal, Wardha, Nagpur, Akola, Buldhana, Amravati, Chandrapur and Bhandara. In western Maharashtra, percentage increase in the number of semi-medium holdings in all the districts except Ahmednagar (35.76 per cent) was below 20 per cent. In the districts of Konkan region, it was below 10 per cent.

During the period from 1976-77 to 1980-81, the semi-medium holdings increased at a higher rate as compared to that in the previous period in the districts of Vidarbha region, Konkan region and few districts of Western Maharashtra (Nasik, Dhule, Pune and Solapur). In Marathwada, in all the districts (except Aurangabad), the semi-medium holdings showed an increase lesser than the previous period. Kulaba, Kolhapur, Amravati, Akola and Buldhana districts showed negative figures for the period from 1980-81 to 1985-86. In Ratnagiri, these holdings showed the highest increase (113.89 per cent). It was followed by Dhule (42.84 per cent). In the remaining districts, the increase ranged between 0.07 per cent (Bhandara) to 40.58 per cent (Solapur).

Considering the period from 1970-71 to 1985-86, semi-medium holdings increased in the range of 6.65 per cent (Kolhapur) to 189.91 per cent (Aurangabad). There was decline in Kulaba (-0.07 per cent). All the districts of Marathwada region, Yavatmal district from Vidarbha, Dhule and Ahmednagar districts of Western Maharashtra and Ratnagiri district from Konkan region showed above 100 per cent increase in the number of semi-medium holdings.

iv. Percentage change in the number of operational medium holdings:

The medium holdings during 1970-71 to 1976-77 showed an increase in the range of 0.02 per cent in Ratnagiri to 23.88 per cent in Parbhani. There was a decline in Kulaba (-4.70 per cent) and Kolhapur (-9.18 per cent). A two digit increase was observed in the districts of Marathwada region (except Nanded) and Vidarbha region (except Bhandara, Chandrapur).

For the period from 1976-77 to 1980-81, the medium holdings showed declining trend in Ahmednagar, Pune, Satara, Kolhapur districts of Western Maharashtra, Parbhani, Nanded in Marathwada and Akola, Bhandara, Chandrapur

in Vidarbha. The largest increase was observed in Aurangabad, (16.58 per cent) followed by Osmanabad, Beed, Ratnagiri.

For the period from 1980-81 to 1985-86, two-third of the districts showed negative figures. Only in Thana, Osmanabad and Akola, medium holdings increased by more than 5 per cent. The highest decline was observed in Dhule (-22.70 per cent).

Considering the total period from 1970-71 to 1985-86, one third of the districts showed decrease in the number of medium holdings. They included Dhule, Jalgaon, Ahmednagar, Satara, Sangli, Kolhapur (all from Western Maharashtra), Nanded and Bhandara. An increase in the number of medium holdings during this period was observed in the remaining districts of Vidarbha, Marathwada and Kokan.

v. Percentage change in the number of operational large holdings:

The large holdings showed negative figures for all the districts in the state considering the total period of 15 years. This means most of the large holdings had been broken down.

From the above discussion on changes in number of operational holdings and per cent change in successive census years and the period of 15 year (1970-71 to 1985-86) the following conclusion could be drawn.

The number of operational holdings in marginal small semi-medium size groups showed an increasing trend in all the districts while there was a clear declining trend in the large size group and mixed trend in the medium size group of holdings during the period from 1970-71 to 1985-86. The drastic change was observed in the district of Marathwada region where the number of holdings of small and marginal size class increased by more than four times, semi-medium doubled, medium holdings 10 to 27 per cent except in Nanded and

large size group declined by 50 to 77 per cent during the period of 15 years. At the overall level, the number of operational holdings showed increasing trend in all the districts (except Kulaba during 1980-81 to 1985-86) during all the successive census periods. Considering the period from 1970-71 to 1985-86 the number of operational holdings doubled in Aurangabad, Beed and Yavatmal districts. All the districts of Marathwada region and Yavatmal district in Vidarbha had relatively more number of large holdings and the process of converting them into smaller ones was noticed. The decline in the number of operational holdings of medium size group was observed in Dhule, Jalgaon, Ahmednagar, Satara, Sangli, Kolhapur (Western Maharashtra), Nanded (Marathwada) and Bhandara district (Vidarbha) during the period from 1970-71 to 1985-86.

5.1.2 Changes in the Distribution of Area of Operational Holdings in Different Districts:

The district-wise area of operational holdings by size classes for the study period is presented in Table 5.3 and discussed below by size classes.

i. Changes in the area of operational marginal holdings:

The area of marginal holdings was observed to be increasing in all the districts during the period from 1970-71 to 1985-86 (except Kulaba in 1985-86). During 1985-86, the area of marginal holdings in about three-fourth of the districts remained below 10 per cent of the total area in the district. Considering the study period (1970-71 to 1985-86) a drastic increase was observed in Aurangabad followed by Parbhani, Beed, Nanded, Osmanabad (all from Marathwada), Yavatmal, Ahmednagar, Dhule. In absolute terms the area of marginal holdings was the highest in Ranagiri in 1970-71 (63,640 ha) and Satara in 1985-86 (1,15,840 ha).

Table 5.3 Distribution of the area of operational holdings by size-classes in different districts of Maharashtra

(Area in thousand hectares)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KOKAN												
Thana	26.71 (6.62)	31.16 (7.52)	37.92 (9.03)	43.77 (10.29)	37.02 (9.17)	46.48 (11.22)	56.77 (13.51)	58.66 (13.79)	66.79 (16.55)	73.04 (17.64)	86.96 (20.70)	87.23 (20.50)
Kulaba	40.93 (10.83)	45.54 (12.32)	54.46 (14.71)	50.69 (14.32)	52.77 (13.96)	56.73 (15.34)	63.48 (17.15)	58.34 (16.48)	77.36 (20.47)	79.03 (21.37)	82.15 (22.20)	77.16 (21.79)
Ratnagiri	63.64 (5.99)	65.66 (6.21)	82.92 (7.17)	84.08 (7.46)	88.40 (8.33)	93.67 (8.86)	111.36 (9.63)	132.73 (11.78)	176.60 (16.64)	186.02 (17.59)	222.31 (19.23)	212.25 (18.83)
WESTERN MAHARASHTRA												
Nasik	19.65 (1.89)	24.15 (2.33)	40.07 (3.81)	43.52 (4.12)	54.17 (5.21)	66.83 (6.45)	97.12 (9.24)	125.85 (11.92)	157.98 (15.20)	187.26 (18.08)	233.61 (22.23)	268.26 (25.41)
Dhule	10.37 (1.44)	11.66 (1.60)	20.09 (2.64)	34.45 (4.60)	35.35 (4.89)	42.01 (5.76)	75.04 (9.84)	145.75 (19.44)	111.02 (15.36)	127.90 (17.54)	161.46 (21.18)	221.05 (29.49)
Jalgaon	23.61 (2.78)	25.56 (3.02)	32.98 (3.78)	45.18 (5.32)	79.97 (9.41)	89.92 (10.61)	110.56 (12.67)	165.67 (19.50)	174.14 (20.49)	197.07 (23.25)	216.71 (24.84)	256.74 (30.21)
Ahmednagar	23.16 (1.73)	34.28 (2.62)	51.42 (4.07)	85.00 (6.53)	61.96 (4.68)	90.56 (6.93)	133.47 (10.57)	226.53 (17.41)	176.34 (13.19)	238.36 (18.23)	313.36 (24.80)	390.02 (29.97)
Pune	36.83 (3.18)	44.39 (3.86)	55.44 (4.86)	69.13 (6.01)	74.29 (6.42)	89.20 (7.76)	111.78 (9.79)	143.04 (12.43)	178.74 (15.45)	202.75 (17.67)	244.49 (21.41)	276.68 (24.04)
Solapur	14.40 (1.11)	17.28 (1.32)	22.46 (1.81)	31.55 (2.45)	45.16 (3.48)	56.49 (4.32)	72.97 (5.86)	115.88 (9.01)	143.72 (11.08)	166.46 (12.76)	203.38 (16.35)	276.60 (21.51)
Sangli	33.33 (4.68)	40.28 (5.56)	51.60 (7.07)	71.64 (10.06)	61.60 (8.65)	74.26 (10.24)	91.31 (12.50)	114.16 (16.03)	125.51 (17.62)	143.30 (19.76)	165.69 (22.69)	181.34 (25.46)
Satara	47.18 (6.38)	55.87 (7.30)	79.87 (10.32)	115.84 (14.28)	79.82 (10.78)	98.79 (12.92)	132.26 (16.97)	174.53 (21.52)	156.02 (21.08)	181.67 (23.76)	203.20 (26.27)	227.63 (28.07)
Kolhapur	57.86 (10.68)	65.05 (12.11)	83.25 (15.93)	95.84 (18.82)	75.86 (14.00)	90.57 (16.86)	99.53 (19.04)	107.20 (21.05)	125.83 (23.23)	122.20 (22.75)	139.24 (26.64)	131.39 (25.79)
MARATHWADA												
Aurangabad	11.32 (0.84)	18.34 (1.42)	33.71 (2.29)	57.26 (3.88)	43.77 (3.27)	72.09 (5.57)	129.33 (8.78)	217.12 (14.70)	156.94 (11.72)	221.76 (17.14)	323.58 (21.98)	434.77 (29.45)
Parabhani	7.25 (0.69)	14.27 (1.36)	20.35 (2.19)	30.88 (3.36)	30.08 (2.87)	57.67 (5.50)	82.68 (8.90)	125.00 (13.61)	113.31 (10.79)	173.52 (16.53)	213.12 (22.94)	264.83 (28.84)
Beed	9.19 (0.97)	17.63 (1.84)	26.25 (2.72)	43.33 (4.64)	32.34 (3.41)	57.84 (6.03)	84.96 (8.80)	125.67 (13.47)	107.05 (11.28)	154.30 (16.10)	216.84 (22.47)	241.89 (25.92)
Nanded	11.17 (1.39)	18.20 (2.28)	25.97 (3.30)	43.33 (4.64)	37.00 (4.62)	57.30 (7.18)	81.78 (10.38)	125.67 (13.47)	121.98 (15.22)	157.36 (19.73)	197.41 (25.05)	241.89 (25.92)
Osmanabad	7.91 (0.61)	12.76 (0.99)	20.25 (1.53)	31.18 (2.28)	34.05 (2.64)	57.57 (4.49)	91.45 (6.89)	137.95 (10.09)	127.95 (9.92)	176.33 (13.76)	233.30 (17.68)	319.28 (23.34)
VIDARBHA												
Buldhana	14.99 (1.98)	16.93 (2.26)	33.40 (4.44)	28.77 (4.03)	48.63 (6.43)	61.77 (8.22)	94.91 (12.61)	101.83 (14.27)	106.73 (14.10)	133.35 (17.75)	183.85 (24.44)	177.24 (24.84)
Akola	16.21 (1.92)	20.25 (2.39)	26.74 (3.16)	31.87 (3.87)	51.15 (6.06)	71.25 (8.41)	110.82 (13.09)	110.94 (13.48)	115.70 (13.70)	148.78 (17.57)	201.93 (23.86)	194.10 (23.59)
Amaravati	22.35 (3.05)	26.05 (3.59)	38.74 (5.00)	39.86 (5.21)	61.32 (8.38)	82.37 (11.35)	119.89 (15.49)	148.42 (19.40)	118.65 (16.21)	147.08 (20.28)	199.98 (25.83)	186.28 (24.34)
Yavatval	3.07 (0.33)	3.85 (0.42)	12.17 (1.27)	12.93 (1.36)	23.29 (2.52)	44.14 (4.79)	87.01 (9.11)	117.89 (12.44)	91.65 (9.92)	133.80 (14.51)	221.32 (23.16)	245.61 (25.92)
Wardha	4.36 (0.94)	6.86 (1.50)	8.67 (1.92)	11.50 (2.55)	20.59 (4.45)	30.02 (6.54)	48.56 (10.73)	54.59 (12.13)	61.50 (13.29)	82.05 (17.87)	101.63 (22.45)	115.73 (25.72)
Nagpur	9.07 (1.43)	12.50 (2.01)	17.46 (2.72)	20.77 (3.36)	32.22 (5.08)	47.03 (7.55)	70.97 (11.07)	88.36 (14.30)	95.33 (15.03)	124.84 (20.05)	151.18 (23.58)	156.72 (25.36)
Bhandara	40.39 (9.60)	47.83 (11.28)	61.77 (14.40)	69.49 (16.60)	64.86 (15.43)	73.62 (17.36)	94.78 (22.10)	100.09 (23.92)	103.38 (24.60)	110.73 (26.11)	115.19 (26.85)	115.45 (27.54)
Chandrapur	24.79 (3.38)	29.18 (4.02)	44.06 (5.99)	43.01 (5.67)	57.85 (7.90)	67.04 (9.24)	91.69 (12.47)	104.76 (13.82)	139.94 (19.10)	151.05 (20.83)	183.04 (24.90)	205.43 (27.10)

Table 5.3 (Continued....)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	126.18 (31.26)	129.91 (31.37)	131.64 (31.34)	141.18 (33.18)	146.91 (36.40)	133.54 (32.25)	106.79 (25.42)	94.61 (22.24)	403.61 (100.00)	414.13 (100.00)	420.08 (100.00)	425.45 (100.00)
Kulaba	103.61 (27.41)	99.38 (26.87)	101.79 (27.50)	102.63 (28.99)	103.29 (27.33)	89.11 (24.10)	68.24 (18.44)	62.20 (18.42)	377.96 (100.00)	369.79 (100.00)	370.12 (100.00)	354.02 (100.00)
Ratnagiri	350.81 (33.05)	346.81 (32.80)	384.28 (33.25)	371.76 (32.98)	382.04 (35.99)	365.15 (34.54)	355.03 (30.72)	326.34 (28.95)	1061.49 (100.00)	1057.31 (100.00)	1155.90 (100.00)	1127.16 (100.00)
WESTERN MAHARASHTRA												
Nasik	422.96 (40.69)	441.45 (42.61)	459.95 (43.77)	423.14 (40.09)	384.62 (37.01)	316.31 (30.53)	220.11 (20.95)	194.83 (18.46)	1039.38 (100.00)	1036.00 (100.00)	1050.86 (100.00)	1055.60 (100.00)
Dhule	335.31 (46.39)	354.81 (48.65)	383.47 (50.30)	275.84 (36.80)	230.69 (31.92)	192.93 (26.45)	122.26 (16.04)	72.49 (9.67)	722.74 (100.00)	729.31 (100.00)	762.32 (100.00)	749.58 (100.00)
Jalgaon	334.48 (39.35)	358.73 (42.32)	375.85 (43.07)	303.25 (35.69)	237.73 (27.97)	176.28 (20.80)	136.48 (15.64)	78.82 (9.28)	849.93 (100.00)	847.56 (100.00)	872.58 (100.00)	849.66 (100.00)
Ahmednagar	486.06 (36.34)	504.11 (38.55)	467.86 (37.03)	403.32 (30.99)	590.01 (44.11)	440.34 (33.67)	297.26 (23.53)	196.46 (15.10)	1337.53 (100.00)	1307.66 (100.00)	1263.37 (100.00)	1301.33 (100.00)
Pune	418.14 (36.14)	425.69 (37.01)	417.40 (36.55)	406.82 (35.34)	449.14 (38.81)	388.06 (33.74)	312.82 (27.39)	255.36 (22.18)	1157.14 (100.00)	1150.09 (100.00)	1141.93 (100.00)	1151.03 (100.00)
Solapur	449.21 (34.64)	482.97 (37.01)	506.90 (40.74)	512.64 (39.86)	644.50 (49.69)	581.84 (44.59)	438.52 (35.24)	349.46 (27.17)	1276.99 (100.00)	1305.04 (100.00)	1244.23 (100.00)	1286.13 (100.00)
Sangli	242.24 (34.00)	249.44 (34.40)	256.35 (35.10)	222.03 (31.17)	249.74 (35.05)	217.87 (30.04)	165.30 (22.64)	123.06 (17.28)	712.42 (100.00)	725.14 (100.00)	730.25 (100.00)	712.23 (100.00)
Satara	263.66 (35.62)	261.91 (34.25)	237.99 (30.76)	202.23 (24.93)	193.43 (26.14)	166.49 (21.77)	121.32 (15.68)	90.85 (11.20)	740.11 (100.00)	764.73 (100.00)	773.64 (100.00)	811.08 (100.00)
Kolhapur	178.41 (32.94)	158.51 (29.51)	135.64 (25.95)	117.92 (23.15)	103.72 (19.15)	100.83 (18.77)	65.05 (12.44)	57.02 (11.19)	541.68 (100.00)	537.16 (100.00)	522.71 (100.00)	509.37 (100.00)
MARATHWADA												
Aurangabad	515.33 (38.48)	573.98 (44.35)	659.86 (44.81)	578.64 (39.19)	611.98 (45.89)	407.91 (31.52)	325.99 (22.14)	188.74 (12.78)	1339.34 (100.00)	1294.08 (100.00)	1472.47 (100.00)	1476.53 (100.00)
Parabhani	395.08 (37.62)	471.49 (44.93)	444.72 (47.86)	398.24 (43.36)	504.42 (48.03)	332.51 (31.68)	168.32 (18.11)	99.49 (10.83)	1050.14 (100.00)	1049.46 (100.00)	929.19 (100.00)	918.44 (100.00)
Beed	337.84 (35.59)	385.71 (40.25)	428.75 (44.42)	371.58 (39.81)	462.68 (48.75)	342.90 (35.78)	208.32 (21.59)	150.78 (16.16)	949.10 (100.00)	958.38 (100.00)	965.12 (100.00)	933.25 (100.00)
Wanded	367.63 (45.85)	378.34 (47.43)	357.88 (45.42)	371.58 (39.82)	263.96 (32.92)	186.50 (23.38)	124.93 (15.85)	150.78 (16.15)	801.74 (100.00)	797.70 (100.00)	787.97 (100.00)	933.25 (100.00)
Osmanabad	464.97 (36.07)	524.28 (40.90)	580.11 (43.71)	597.84 (43.71)	654.37 (50.76)	570.92 (39.86)	402.12 (30.29)	281.49 (20.58)	1289.25 (100.00)	1281.80 (100.00)	1327.23 (100.00)	1367.74 (100.00)
VIDARBHA												
Buldhana	224.47 (32.30)	288.18 (38.36)	281.34 (37.40)	283.22 (39.69)	341.95 (45.19)	251.01 (33.41)	158.82 (21.11)	122.53 (17.17)	756.77 (100.00)	751.24 (100.00)	752.32 (100.00)	713.59 (100.00)
Akola	279.83 (33.13)	332.18 (39.23)	311.28 (36.78)	322.44 (39.16)	381.72 (45.19)	274.37 (32.40)	195.65 (23.11)	163.79 (19.90)	844.61 (100.00)	846.83 (100.00)	846.42 (100.00)	822.94 (100.00)
Amaravati	242.47 (33.12)	274.23 (37.81)	273.85 (35.37)	269.63 (35.23)	287.31 (39.24)	195.60 (26.97)	141.73 (18.31)	121.06 (15.82)	732.10 (100.00)	725.33 (100.00)	774.19 (100.00)	765.25 (100.00)
Yavatmal	323.44 (35.02)	389.88 (42.29)	399.55 (41.80)	387.23 (40.86)	482.15 (52.21)	350.29 (37.99)	325.73 (24.66)	184.10 (19.42)	923.60 (100.00)	921.96 (100.00)	955.78 (100.00)	947.76 (100.00)
Wardha	168.02 (36.31)	202.02 (44.01)	197.06 (43.53)	190.52 (42.33)	208.26 (45.01)	138.10 (30.08)	96.74 (21.37)	77.70 (17.27)	462.73 (100.00)	459.05 (100.00)	452.66 (100.00)	450.04 (100.00)
Nagpur	247.45 (39.00)	272.82 (43.82)	271.37 (42.32)	255.89 (41.41)	250.36 (39.48)	165.44 (26.57)	130.23 (20.31)	96.21 (15.57)	634.43 (100.00)	622.63 (100.00)	641.21 (100.00)	617.95 (100.00)
Bhandara	132.13 (31.44)	131.93 (31.11)	116.50 (27.16)	105.08 (25.10)	79.55 (18.93)	59.95 (14.14)	40.71 (9.49)	28.57 (6.82)	420.31 (100.00)	424.06 (100.00)	428.95 (100.00)	418.68 (100.00)
Chandrapur	287.01 (39.17)	298.83 (41.20)	289.91 (39.44)	296.91 (39.17)	223.13 (30.45)	179.20 (24.71)	126.45 (17.20)	107.90 (14.24)	732.73 (100.00)	725.30 (100.00)	735.15 (100.00)	758.01 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the district.

ii. Changes in the area of operational small holdings:

The area of small holdings showed a constant increasing trend in all districts of the state except Kulaba for the period (1980-81 to 1985-86). About five times increase in the area of small holdings in 1985-86 as compared to that in 1970-71 was observed in Yavatmal, followed by four times in Aurangabad, three times in parbhani, Dhule and Osmanabad. Thus, a majority of the districts showed an increasing trend in the area of small holdings particularly Marathwada region of the state. In 1970-71 the proportion of area of small holdings ranged from 2.52 per cent in Yavatmal to 15.43 per cent in Bhandara, while during 1985-86 it ranged form 9.01 per cent in Solapur to 23.92 per cent in Bhandara. As regards the absolute area (in hectares) under small holdings, it ranged from 20,590 hectares in Wardha to 88,400 hectares in Ratnagiri in 1970-71 while during 1985-86 it ranged from 54,590 hectares in Wardha to 2,26,530 hectares in Ahmednagar. Thus, the conspicuous changes in the area of small holdings were observed in the districts of Marathwada and Vidarbha regions of the state.

iii. Changes in the area of operational semi-medium holdings:

The area of semi-medium holdings during 1976-77 and 1980-81 (compared to 1970-71) showed a clear increasing trend in all the districts of the State except Kolhapur in 1976-77. However, during 1985-86 there was a declining trend in Kulaba, Ratnagiri, Kolhapur, Buldhana, Akola and Amravati. Considering the percentage area of semi-medium holdings, it ranged from 9.92 per cent (Yavatmal) to 24.60 per cent (Bhandara) during 1970-71 and from 18.83 per cent (Ratnagiri) to 30.21 per cent (Jalgaon) in 1985-86. In most of the districts, the

semi-medium holdings were occupying nearly one-fifth of the total area of the district.

The drastic change in the area under semi-medium holdings during the period from 1970-71 to 1985-86 was observed in Aurangabad, Osmanabad, Parbhani, Beed and Ahmednagar districts.

iv. Changes in the area of operational medium holdings:

The area under medium holdings showed mixed trend for the period under study. During 1976-77, the proportionate area under this category declined in Kulaba, Ratnagiri, Satara, Kolhapur and Bhandara as compared to that in 1970-71. The number of districts showing negative trend in the area under medium holdings increased from census to census. The picture for the census year 1985-86 showed that all the districts in Western Maharashtra (except Solapur), Kulaba (Konkan) and Bhandara in Vidarbha showed lower area figure as compared to that in 1970-71. Satara, Bhandara and Kolhapur districts showed a continuous declining trend in area during the 4 census periods. However, a clear increasing trend was observed in Thana, Solapur and Osmanabad districts. In majority of the districts, the area under medium holdings was observed to be declining during the 4 census periods under study.

v. Changes in the area of operational large holdings:

The area under large holdings was relatively more as compared to other size classes during 1970-71 and showed a clear declining trend during the subsequent census periods under study. The proportion of area under large holdings during 1970-71 ranged from 18.93 per cent in Bhandara to 52.21 per cent in Yavatmal. In 1985-86, it was 9.28 per cent in Jalgaon to 28.95 per cent

in Ratnagiri. Thus, there was reduction in the area under large holdings in all the districts in the state during the period from 1970-71 to 1985-86. A majority of the districts showed a reduction in the area by more than 50 per cent.

The change in area of holdings from one census to another and for the entire period (1970-71 to 1985-86) was calculated in terms of percentages and the same is given in Table 5.4. The analysis is done by size classes of holdings as below:

i. Percentage change in the area of operational marginal holdings:

The percentage increase in the area of marginal holdings during 1976-77 over 1970-71 was observed to be very high in the districts of Parbhani (96.83 per cent) and Beed (91.84 per cent). It was followed by Nanded and Osmanabad (both from Marathwada). In the remaining districts increase was below 50 per cent, with the exception of Wardha (57.34 per cent). It was due to diminution of bigger holdings which were predominant in this region. The lowest increase was in Ratnagiri (3.17 per cent)° district where marginal holdings already predominated.

During the period from 1976-77 to 1980-81, the highest increase was observed in Yavatmal (216.10 per cent) followed by Buldhana (97.28 per cent). In the remaining districts, the area showed moderate increase from 19.59 per cent in Kulaba to 83.80 per cent in Aurangabad. During 1980-81 to 1985-86 period, the percentages of area showed decline in Buldhana and Chandrapur districts.

Dhule and Ahmednagar districts of Western Maharashtra and all the districts of Marathwada showed more than 50 per cent increase in the area of marginal holdings during 1985-86 over 1980-81.

Table 5.4 Percentage changes in the area of operational holdings by size-classes for different census periods in different districts of Maharashtra.

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	16.66	21.69	15.43	63.83	25.55	22.14	3.33	58.45	9.36	19.06	0.31	30.60
Kulaba	11.26	19.59	3.07	23.85	7.50	11.90	-8.10	10.55	2.16	3.95	-6.07	-0.26
Ratnagiri	3.17	26.28	1.40	32.12	5.96	18.88	19.19	50.15	5.33	19.50	-4.53	20.18
WESTERN MAHARASHTRA												
Nasik	22.90	65.92	8.61	121.48	23.37	45.21	29.58	132.32	18.53	24.75	14.83	69.81
Dhule	12.44	72.30	71.48	232.21	18.84	78.62	94.23	312.30	15.20	26.24	36.90	99.11
Jalgaon	8.25	29.03	36.99	91.36	12.44	22.95	49.85	107.16	13.17	9.97	18.47	47.43
Ahmednagar	48.01	50.00	65.30	267.01	46.17	47.37	69.72	265.61	35.17	31.46	24.46	121.18
Pune	20.51	24.89	24.69	87.70	20.07	25.31	27.96	92.54	13.43	20.59	13.16	54.79
Solapur	20.00	29.98	40.47	119.10	25.09	29.17	58.80	156.60	15.82	22.18	36.00	92.46
Satara	18.42	42.96	45.03	145.53	23.76	32.87	32.96	118.65	16.44	11.85	12.02	45.90
Sangli	20.85	28.10	38.84	114.94	20.55	22.96	25.02	85.32	44.16	15.63	9.44	44.48
Kolhapur	12.43	27.99	15.12	65.64	19.39	9.89	7.71	41.31	-2.89	13.94	-5.64	4.42
MARATHWADA												
Aurangabad	62.01	83.80	69.86	405.83	64.70	79.40	67.88	396.07	41.30	45.91	34.36	177.03
Parabhani	96.83	42.61	51.74	325.93	91.32	43.37	51.18	315.56	53.14	22.82	24.26	133.72
Beed	91.84	48.89	65.06	371.49	78.85	46.89	47.91	288.59	44.14	40.53	11.55	125.95
Wanded	62.93	42.69	66.85	287.91	54.86	42.72	53.67	239.65	29.00	25.45	22.53	98.30
Osmanabad	61.31	58.70	53.97	294.18	68.90	59.01	50.84	305.14	37.81	32.31	36.85	149.53
VIDARBHA												
Buldhana	12.94	97.28	-13.06	91.99	27.02	53.65	7.29	109.40	24.94	37.87	-3.59	66.06
Akola	24.92	32.05	19.18	96.61	39.29	55.53	0.11	116.89	28.59	35.72	-3.88	67.76
Amravati	16.55	48.71	2.89	78.34	34.33	45.55	23.80	142.04	23.96	35.97	-6.85	57.00
Yavatmal	25.40	216.10	6.24	321.17	89.52	97.12	35.49	406.18	45.99	65.41	10.97	167.99
Wardha	57.34	26.38	32.64	163.76	45.80	61.76	12.42	165.13	33.44	23.83	13.87	88.18
Hagpur	37.82	39.68	18.96	129.00	45.96	50.90	24.50	174.24	30.95	21.10	3.66	64.40
Bhandara	18.42	29.24	12.50	72.05	13.51	28.74	5.60	54.32	7.11	4.03	0.23	11.67
Chandrapur	17.71	50.99	-2.83	73.50	15.88	36.77	14.25	81.09	7.94	21.18	12.23	46.80

Table 5.4 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	2.96	1.33	7.25	11.89	-9.10	-20.03	-11.41	-35.60	2.61	1.44	1.28	5.41
Kulaba	-4.08	2.42	0.82	-0.95	-13.73	-23.44	-8.85	-39.78	2.17	0.09	-4.35	-6.34
Ratnagiri	-1.14	10.80	-3.26	5.97	-4.42	-2.77	-8.08	-14.58	-0.40	9.33	-2.49	6.19
WESTERN MAHARASHTRA												
Nasik	4.37	4.19	-8.00	-0.42	-17.76	-30.41	-11.46	-49.33	-0.33	1.43	0.45	1.56
Dhule	5.81	8.08	-28.07	-17.24	-16.37	-36.63	-40.71	-68.58	0.91	4.53	-1.67	3.71
Jalgaon	7.25	4.77	-19.32	-9.34	-25.85	-22.57	-42.25	-66.85	-0.28	2.95	-2.63	-0.03
Ahmednagar	3.71	-7.19	-13.79	-17.02	-25.37	-32.49	-33.91	-66.70	-2.23	-3.39	3.00	2.71
Pune	1.80	-1.95	-2.54	-2.71	-13.60	-19.36	-18.37	-43.15	-0.61	-0.71	0.80	-0.53
Solapur	7.51	4.95	1.13	14.12	-9.72	-24.63	-20.32	-45.78	-2.19	-4.66	3.37	-0.84
Satara	-0.66	-9.13	-15.03	-2.33	-13.93	-27.13	-25.12	-53.03	3.33	1.16	4.84	9.58
Sangli	2.97	2.77	-13.39	-8.34	-12.76	-24.13	-25.55	-50.73	1.78	0.70	-2.47	-0.03
Kolhapur	-11.15	-14.43	-13.06	-33.91	-2.79	-35.48	-12.34	-45.02	-0.83	-2.69	-2.55	-5.96
MARATHWADA												
Aurangabad	11.38	14.96	-12.31	12.28	-33.34	-20.08	-42.10	-69.16	-3.38	13.79	0.28	10.24
Parabhani	19.34	-5.68	-10.45	0.80	-34.08	-49.38	40.89	-80.27	-0.06	-11.46	-1.16	-12.54
Beed	14.17	11.16	-13.33	9.99	-25.88	-39.25	-27.62	-32.59	0.98	0.70	-3.30	-1.67
Wanded	2.91	-5.41	3.83	1.07	-29.34	-33.01	-20.69	-42.88	-0.50	-1.22	18.44	16.40
Osmannabad	12.75	24.76	3.06	28.58	-12.75	-29.56	-29.99	-56.98	-0.58	3.54	3.05	6.09
VIDARBHA												
Buldhana	17.88	-2.37	0.67	26.17	-26.59	-36.73	-22.85	-64.17	-0.73	0.14	-5.15	-5.70
Akola	18.71	-6.29	3.52	15.15	-28.12	-28.69	-16.28	-57.09	0.26	-0.05	-2.77	-2.57
Amaravati	13.09	-0.14	-1.54	11.20	-31.92	-27.54	-14.58	-57.81	0.92	6.74	-1.15	4.53
Yavatmal	20.54	2.48	-3.08	19.72	-27.35	-32.70	-21.90	-61.82	-0.17	3.67	-0.84	2.62
Wardha	20.23	-2.46	-3.32	13.39	-33.69	-29.95	-19.68	-62.69	-0.08	-1.39	-0.58	-2.74
Nagpur	10.45	-0.53	-5.70	3.41	-33.92	-21.28	-26.12	-61.57	-1.86	2.98	-3.63	-2.60
Bhandara	-0.15	-11.70	-9.80	-20.47	-24.64	-32.09	-29.82	-64.08	0.89	1.15	-2.39	0.39
Chandrapur	4.13	-2.98	2.41	3.45	-19.69	-29.44	-14.67	-51.64	-1.01	1.35	3.11	3.45

During the entire study period (1970-71 to 1985-86), the highest percentage increase in the area of marginal holdings was noted in Aurangabad (405.83 per cent) followed by Beed, Parbhani and Yavatmal (all above 300 per cent).

ii. Percentage change in the area of operational small holdings:

During the period from 1970-71 to 1976-77 the percentage area increase in small holdings was the highest in Parbhani (91.32 per cent) district. It was followed by Yavatmal, Beed, Osmanabad, Aurangabad and Nanded districts (all above 50 per cent). The area increase in rest of the districts varied from 5.96 per cent in Ratnagiri to 46.17 per cent in Ahmednagar district. Considering the change for 1980-81 over 1976-77 the percentage area increase ranged from 9.89 per cent in Kolhapur to 97.12 per cent in Yavatmal. In majority of the districts from Vidarbha and Marathwada region, the area increased by more than 40 per cent.

During the period from 1980-81 to 1985-86, all the districts except Kulaba showed increase ranging between 0.11 per cent (Akola) and 94.23 per cent (Dhule). In general, the area increase was of the order of 50 per cent in the districts of Marathwada and above 25 per cent in the districts of Western Marathwada (except Kolhapur). Considering the whole period from 1970-71 to 1985-86, the percentage area increase was the highest in Yavatmal (406.18 per cent), followed by Aurangabad, Parbhani, Osmanabad and Dhule (above 300 per cent).

iii. Percentage change in the area of operational semi-medium holdings:

The area of semi-medium holding declined in Kolhapur (-2.89 per cent)

during 1976-77 over that in 1970-71. The increase in the remaining districts ranged from 2.16 per cent (Kulaba) to 53.14 per cent (Parbhani). Excepting rice growing districts of Thana, Kulaba, Ratnagiri, Kolhapur, Bhandara and Chandrapur, there was moderate increase in all the districts ranging from 13.17 per cent in Jalgaon to 45.99 per cent in Yavatmal. Similar increasing pattern of area in semi-medium holdings was observed in all the districts (except Kolhapur) during 1980-81 over 1976-77. The largest increase was observed in Yavatmal (65.41 per cent) and lowest in Kulaba district (3.95 per cent). Considering the period from 1980-81 to 1985-86, the districts of Kulaba, Ratnagiri, Kolhapur, Buldhana, Akola, Amravati showed negative trend. In the remaining districts, the area of semi-medium holdings showed positive trend ranging from 0.23 per cent in Buldhana to 36.90 per cent in Dhule.

Considering the period of 15 years (1970-71 to 1985-86), with the exception of Kulaba, all the districts showed an increasing trend. The largest increase was observed in Aurangabad (177.03 per cent) followed by Osmanabad, Parbhani, Beed, Yavatmal and Ahmednagar (all over 100 per cent).

iv. Percentage change in the area of operational medium holdings:

The percentage of area under medium holdings showed a decline in Kulaba, Ratnagiri, Satara, Kolhapur and Bhandara during the period from 1970-71 to 1976-77. The percentage increase in the area for other districts ranged from 1.80 per cent in Pune to 20.54 per cent in Yavatmal. During the subsequent period (1976-77 to 1980-81), the districts of Ahmednagar, Pune, Satara, Kolhapur (from Western Maharashtra), Buldhana, Akola, Amravati, Wardha, Nagpur, Bhandara, Chandrapur (from Vidarbha) and Nanded, Parbhani from Marathwada showed negative figures. The highest increase in the area of medium holdings for 1980-81 over 1976-77 was observed in Osmanabad (24.76 per cent). It was

followed by Aurangabad (14.96 per cent), Beed (11.16 per cent) and Ratnagiri (10.80 per cent). In rest of the districts, it was below 10 per cent. Considering the period from 1980-81 to 1985-86, all the districts of Western Maharashtra except Solapur, all districts of Vidarbha except Buldhana, Akola and Chandrapur, all districts of Marathwada except Nanded and Osmanabad and Ratnagiri, of Konkan had negative growth in the area under medium holdings. For the period from 1970-71 to 1985-86, all districts of Western Maharashtra and Kulaba district from Konkan indicated declining trend in the area of medium holdings. The percentage increase in the area was the highest in Osmanabad (28.58 per cent).

v. Percentage change in the area of operational large holdings:

The area of large holdings showed a clear declining trend from census to census. The largest decline was noted in Parbhani during the period from 1970-71 to 1976-77. For the period from 1980-81 to 1985-86, it was Jalgaon district. The quantitative decline of area of large holdings was relatively more in the districts of Marathwada followed by Vidarbha during 1970-71 to 1976-77. Similar trend was observed in subsequent periods 1980-81 over 1976-77 and 1985-86 over 1980-81. For the total period of 15 years (1970-71 to 1985-86), the highest decline was observed in Parbhani (-80.27 per cent) followed by Aurangabad (-69.16 per cent).

The above discussion indicates that the increase in area of marginal, small and semi-medium holdings was largely due to loss of area operated by the large holdings. This might also be due to division of land because of Laws of inheritance, demographic pressure and land reform measures like ceiling legislation.

The above results regarding the area of operational holdings for four census years and its percentage change in succeeding as well as 15 years periods leads to the following conclusions.

The proportion of area of marginal holdings was less than one per cent of the district totals in Aurangabad, Parbhani, Beed, Osmanabad (all from Marathwada) and Yavatmal, Wardha districts (Vidarbha) during 1970-71 which showed an increasing trend during the successive census years. Similarly, the area of small holdings showed increasing trend from about 2.5 per cent in 1970-71 to about 14 per cent, in above mentioned districts. The large holding having more than 40 per cent area showed declining trend and the percentage came down between 10 to 20 per cent. Thus, the proportionately more area of large holding seemed to have splitted into holdings below 10 hectares.

The increase in the area under marginal, small and semi-medium in all the districts and sharp decline in large holdings was notable. In the districts of Marathwada and Yavatmal of Vidarbha, the area of marginal and small holdings increased by more than four times and the area of large holdings declined from 30 to 80 per cent during the period of 15 years (1970-71 to 1985-86). Thus, the process of converting large holdings to smaller ones was noticed. The pattern of district-wise percentage change in the area by size classes showed similar trend as at the state level (Chapter IV).

Now we proceed to the analysis of changes in the different sub-categories of operational holdings, viz., individual holdings, joint holding and institutional holdings.

5.1.3 Changes in the Distribution of Number of Individual Operational Holdings in Different Districts:

The distribution of number of individual operational holdings in different

size classes in different districts during four census years are presented in Table 5.5. The analysis is done below separately for different size classes of holdings.

i. Changes in the number of individual marginal holdings:

The number of marginal individual holdings indicated a clear increasing trend for the four census years in all the districts of the state except Buldhana in 1985-86. The preponderance of marginal holdings was observed in Kulaba (51.82 per cent for 1970-71, 54.19 per cent for 1976-77) and in Kolhapur (56.95 per cent for 1980-81, 62.34 per cent for 1985-86). Whereas, absolute number of marginal individual holdings were the highest in Ratnagiri district during the first two censuses and in Satara district during the third and fourth censuses. A drastic increase in the number of holdings considering the entire period was observed in Aurangabad, Parbhani, Beed and Yavatmal districts where the number of holdings had more than tripled. In some districts it was doubled.

i. Changes in the number of individual small holdings:

Similar to marginal holdings, the number of small holdings showed an increasing trend for all the census years in all the districts. The proportion of small holdings during 1970-71 ranged from 11.90 per cent in Osmanabad to 24.17 per cent in Amravati. During 1985-86 the proportion ranged from 15.66 per cent (Ratnagiri) to 36.83 per cent (Amravati). Comparing the number during 1985-86 with that in 1970-71, the drastic changes were noted in Dhule, Aurangabad, Parbhani, Yavatmal, Beed, Nanded and Osmanabad.

iii. Changes in the number of individual semi-medium holdings:

The number of semi-medium individual holdings increased during 1976-77

Table 5.5 Distribution of the number of individual operational holdings by size-classes in different district of Maharashtra

(Numbers in thousand)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	64.84 (45.71)	73.82 (46.36)	79.35 (47.93)	102.04 (52.30)	25.64 (18.08)	31.97 (20.08)	34.85 (21.05)	39.47 (20.23)	23.38 (16.48)	25.46 (15.99)	27.32 (16.50)	28.29 (14.50)
Kulaba	90.94 (51.82)	103.15 (54.19)	112.37 (56.23)	114.63 (57.37)	36.16 (20.60)	39.28 (20.64)	41.08 (20.56)	39.10 (19.57)	26.90 (15.33)	27.65 (14.53)	28.30 (14.16)	26.45 (13.24)
Ratnagiri	186.25 (48.39)	191.06 (48.43)	221.04 (48.85)	244.98 (42.34)	60.69 (15.77)	64.12 (16.25)	73.78 (16.30)	90.60 (15.66)	61.36 (15.94)	64.35 (16.31)	76.94 (17.00)	165.91 (28.60)
WESTERN MAHARASHTRA												
Nasik	38.91 (17.83)	49.40 (19.96)	56.64 (21.09)	79.04 (24.56)	35.94 (16.47)	44.81 (18.10)	52.27 (19.46)	80.31 (24.95)	53.38 (24.47)	63.35 (25.59)	74.65 (27.80)	88.68 (27.55)
Dhule	17.25 (12.15)	19.09 (12.24)	27.44 (14.71)	55.39 (20.41)	23.02 (16.22)	27.23 (17.47)	46.13 (24.72)	95.69 (35.26)	36.17 (25.48)	42.29 (27.13)	51.58 (27.64)	74.80 (27.56)
Jalgaon	39.59 (18.12)	43.80 (18.32)	47.67 (19.66)	65.57 (22.58)	52.36 (23.97)	58.22 (24.34)	63.53 (26.19)	96.15 (33.11)	58.59 (26.82)	67.02 (28.02)	66.05 (27.23)	79.06 (27.22)
Ahmednagar	43.90 (16.96)	67.23 (24.03)	91.79 (24.69)	130.39 (28.32)	42.06 (16.25)	60.97 (19.08)	80.28 (21.60)	124.44 (27.03)	60.72 (23.45)	81.95 (25.64)	105.73 (28.45)	126.31 (27.44)
Pune	79.11 (27.86)	97.50 (30.59)	106.68 (31.01)	146.28 (34.45)	50.61 (17.82)	60.99 (19.13)	74.00 (21.51)	96.77 (22.79)	61.59 (24.69)	69.63 (21.84)	81.70 (23.75)	96.94 (22.83)
Solapur	28.37 (13.33)	34.23 (14.49)	35.74 (15.12)	53.63 (16.80)	29.80 (14.01)	36.94 (15.64)	42.96 (18.18)	73.96 (23.16)	48.30 (22.70)	55.86 (23.65)	63.41 (26.83)	93.35 (29.23)
Satara	109.55 (39.89)	134.07 (41.97)	180.92 (47.26)	264.68 (52.72)	55.04 (20.04)	68.06 (21.31)	85.49 (22.33)	117.88 (23.48)	54.81 (19.96)	63.56 (19.90)	70.46 (18.41)	80.54 (16.04)
Sangli	72.68 (34.20)	86.82 (36.40)	109.91 (39.53)	158.61 (45.80)	42.19 (19.85)	49.67 (20.83)	61.20 (22.01)	78.40 (22.64)	43.77 (20.59)	49.49 (20.75)	57.08 (20.53)	64.54 (18.63)
Kolhapur	128.87 (50.03)	156.29 (52.73)	183.09 (56.95)	235.48 (62.34)	51.02 (19.80)	61.92 (20.89)	65.69 (20.43)	73.50 (19.46)	43.14 (16.75)	47.75 (16.11)	47.93 (14.91)	46.66 (12.35)
MARATHWADA												
Aurangabad	19.77 (8.89)	32.24 (11.58)	52.53 (14.07)	95.66 (18.88)	29.42 (13.23)	47.96 (17.48)	78.76 (21.09)	145.94 (28.80)	53.50 (24.05)	76.86 (27.62)	110.77 (29.67)	154.62 (30.52)
Parabhani	12.61 (7.71)	24.49 (11.08)	20.42 (12.64)	50.70 (16.91)	20.02 (12.23)	38.89 (17.59)	52.61 (21.86)	83.67 (27.91)	38.14 (23.31)	59.59 (26.96)	73.57 (30.57)	91.73 (30.60)
Beed	16.44 (10.58)	32.47 (15.47)	45.37 (17.37)	78.18 (24.52)	21.68 (13.96)	39.39 (18.76)	56.71 (21.71)	84.12 (24.39)	36.45 (23.46)	53.15 (25.32)	75.40 (28.86)	85.11 (26.70)
Nanded	19.61 (12.12)	30.85 (15.63)	41.35 (18.02)	65.47 (21.15)	24.82 (15.33)	39.90 (19.90)	53.85 (23.47)	91.28 (29.48)	41.63 (25.72)	54.20 (27.45)	68.45 (29.83)	92.77 (29.96)
Osmanabad	13.27 (6.96)	20.77 (8.81)	29.64 (10.64)	26.60 (13.16)	22.68 (11.90)	38.38 (16.29)	56.87 (20.42)	86.44 (24.42)	43.29 (22.72)	60.42 (25.64)	76.49 (27.47)	107.74 (30.43)
VIDARBHA												
Buldhana	22.70 (16.12)	27.08 (15.45)	47.47 (20.93)	44.40 (19.72)	31.48 (22.36)	40.97 (22.38)	61.14 (26.95)	68.20 (30.29)	34.63 (24.59)	46.07 (26.29)	63.14 (27.84)	60.90 (27.05)
Akola	23.45 (14.94)	28.47 (15.14)	37.30 (16.13)	43.69 (18.26)	32.89 (20.95)	44.26 (23.54)	67.34 (29.11)	72.78 (30.41)	38.04 (24.23)	49.20 (26.17)	68.27 (29.52)	64.27 (26.95)
Anaravati	33.60 (19.51)	37.98 (18.90)	52.07 (22.21)	55.23 (21.09)	41.61 (24.17)	54.47 (27.11)	71.97 (30.69)	96.42 (36.83)	41.46 (24.08)	51.13 (25.45)	62.05 (26.47)	61.27 (23.40)
Yavatmal	4.58 (3.54)	5.57 (3.36)	15.28 (6.76)	19.28 (7.57)	15.45 (11.95)	29.55 (17.82)	55.49 (24.54)	73.63 (28.92)	31.42 (24.29)	45.61 (27.51)	75.56 (33.41)	86.23 (33.87)
Wardha	6.23 (8.64)	9.12 (10.18)	10.55 (9.63)	15.41 (11.89)	12.92 (17.91)	18.27 (20.38)	31.66 (28.88)	36.90 (28.48)	19.31 (26.78)	25.90 (28.89)	32.55 (29.69)	40.72 (31.43)
Nagpur	13.30 (12.98)	18.33 (13.22)	26.18 (15.26)	31.21 (16.56)	18.90 (18.44)	29.35 (21.16)	44.85 (26.16)	55.37 (29.38)	27.57 (26.90)	40.30 (29.96)	49.54 (28.88)	53.84 (28.56)
Bhandara	78.61 (44.13)	91.60 (46.15)	102.29 (50.47)	130.85 (52.62)	41.78 (23.46)	47.14 (23.75)	52.04 (25.68)	63.51 (25.54)	33.59 (18.86)	35.74 (18.00)	31.85 (15.72)	36.39 (14.63)
Chandrapur	46.14 (24.97)	54.69 (26.27)	68.06 (29.40)	75.08 (27.99)	37.63 (20.37)	44.36 (21.31)	56.12 (24.24)	68.90 (25.68)	45.44 (24.60)	51.34 (24.66)	58.42 (25.24)	70.86 (26.42)

Table 5.5 (Continued....)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	20.04 (14.13)	20.82 (13.08)	18.72 (11.31)	20.52 (10.52)	7.94 (5.60)	7.15 (4.49)	5.31 (3.21)	4.77 (2.45)	141.84 (100.00)	159.22 (100.00)	165.55 (100.00)	195.09 (100.00)
Kulaba	16.68 (9.50)	15.90 (8.35)	14.79 (7.40)	16.36 (8.19)	4.82 (2.75)	4.37 (2.29)	3.30 (1.65)	3.26 (1.63)	175.50 (100.00)	190.35 (100.00)	199.84 (100.00)	199.80 (100.00)
Batnagiri	56.34 (14.64)	56.05 (14.21)	62.42 (13.79)	60.15 (10.40)	20.24 (5.26)	18.94 (4.80)	18.35 (4.06)	17.38 (3.00)	384.88 (100.00)	394.52 (100.00)	452.53 (100.00)	578.62 (100.00)
WESTERN MAHARASHTRA												
Nasik	66.03 (30.27)	69.77 (28.19)	70.43 (26.22)	62.70 (19.48)	23.91 (10.96)	20.21 (8.16)	14.59 (5.43)	11.12 (3.46)	218.17 (100.00)	247.54 (100.00)	268.58 (100.00)	321.85 (100.00)
Dhule	50.68 (35.70)	54.71 (35.10)	54.68 (29.31)	41.27 (15.21)	14.83 (10.45)	12.57 (8.06)	6.76 (3.62)	4.24 (1.56)	141.95 (100.00)	155.89 (100.00)	186.59 (100.00)	271.39 (100.00)
Jalgaon	52.96 (24.25)	57.96 (24.23)	56.74 (23.39)	44.92 (15.47)	14.93 (6.84)	12.17 (5.09)	8.55 (3.53)	4.71 (1.62)	218.43 (100.00)	239.17 (100.00)	242.54 (100.00)	290.41 (100.00)
Ahmednagar	76.98 (29.74)	82.18 (25.71)	75.66 (20.35)	67.80 (14.73)	35.22 (13.60)	27.29 (8.54)	18.25 (4.91)	11.43 (2.48)	258.88 (100.00)	319.62 (100.00)	371.71 (100.00)	460.37 (100.00)
Pune	66.09 (23.28)	67.68 (21.23)	64.15 (18.65)	69.22 (16.30)	26.56 (9.35)	22.98 (7.21)	17.49 (5.08)	15.44 (3.63)	283.96 (100.00)	318.78 (100.00)	344.02 (100.00)	424.65 (100.00)
Solapur	68.71 (32.30)	74.51 (21.54)	71.32 (30.18)	77.85 (24.38)	37.57 (17.66)	34.67 (14.68)	22.91 (9.69)	20.52 (6.43)	212.75 (100.00)	236.21 (100.00)	236.34 (100.00)	319.31 (100.00)
Satara	43.35 (15.78)	43.86 (13.73)	39.14 (10.23)	34.48 (6.87)	11.88 (4.33)	9.87 (3.09)	6.77 (1.77)	4.50 (0.89)	274.63 (100.00)	319.42 (100.00)	382.78 (100.00)	502.08 (100.00)
Sangli	39.20 (18.44)	39.52 (16.57)	39.81 (14.32)	36.86 (10.64)	14.70 (6.92)	13.01 (5.45)	10.05 (3.61)	7.93 (2.29)	212.54 (100.00)	238.50 (100.00)	278.05 (100.00)	346.34 (100.00)
Kolhapur	28.74 (11.16)	25.83 (8.72)	21.80 (6.78)	19.61 (5.19)	5.82 (2.26)	4.60 (1.55)	2.98 (0.93)	2.51 (0.66)	257.59 (100.00)	296.39 (100.00)	321.49 (100.00)	377.76 (100.00)
MARATHWADA												
Aurangabad	80.21 (36.06)	92.42 (33.21)	107.33 (28.74)	97.24 (19.19)	39.54 (17.77)	28.8 (10.36)	24.01 (6.43)	13.20 (2.61)	222.45 (100.00)	278.31 (100.00)	373.40 (100.00)	506.66 (100.00)
Parabhani	60.57 (37.01)	75.22 (34.03)	72.89 (30.28)	66.60 (22.22)	32.32 (19.74)	22.87 (10.34)	11.20 (4.65)	7.09 (2.36)	163.65 (100.00)	221.06 (100.00)	240.69 (100.00)	299.79 (100.00)
Beed	52.48 (33.78)	61.76 (29.42)	68.95 (26.40)	61.70 (19.35)	28.31 (18.22)	23.17 (11.03)	14.79 (5.66)	9.70 (3.04)	155.36 (100.00)	209.94 (100.00)	261.22 (100.00)	318.81 (100.00)
Nanded	57.66 (35.62)	59.82 (30.30)	57.50 (25.06)	54.74 (17.68)	18.14 (11.21)	13.27 (6.72)	8.30 (3.62)	5.36 (1.73)	161.86 (100.00)	197.44 (100.00)	229.45 (100.00)	309.62 (100.00)
Osmanabad	71.37 (37.45)	82.40 (34.96)	89.47 (32.13)	95.06 (26.85)	39.97 (20.97)	33.70 (14.30)	26.04 (9.34)	18.19 (5.14)	190.58 (100.00)	235.67 (100.00)	278.51 (100.00)	354.03 (100.00)
VIDARBHA												
Buldhana	35.15 (24.96)	45.49 (25.96)	44.69 (19.70)	44.04 (19.55)	16.85 (11.97)	15.63 (8.92)	10.39 (4.58)	7.63 (3.39)	140.81 (100.00)	175.24 (100.00)	226.83 (100.00)	225.17 (100.00)
Akola	41.55 (26.47)	48.99 (26.06)	45.89 (19.84)	48.42 (20.23)	21.04 (13.41)	17.08 (9.09)	12.49 (5.40)	10.17 (4.25)	156.97 (100.00)	188.00 (100.00)	231.29 (100.00)	239.33 (100.00)
Amaravati	38.78 (22.52)	44.11 (21.96)	39.79 (16.97)	41.25 (15.75)	16.74 (9.72)	13.23 (6.58)	8.59 (3.66)	7.68 (2.93)	172.19 (100.00)	200.91 (100.00)	234.46 (100.00)	261.84 (100.00)
Yavatmal	51.19 (39.58)	61.86 (37.31)	63.72 (28.18)	62.87 (24.69)	26.69 (20.64)	23.22 (14.00)	16.07 (7.11)	12.61 (4.95)	129.33 (100.00)	165.81 (100.00)	226.12 (100.00)	254.62 (100.00)
Wardha	23.54 (32.64)	28.50 (31.79)	28.89 (26.35)	31.36 (24.20)	10.12 (14.03)	7.85 (8.76)	5.97 (5.45)	5.18 (4.00)	72.12 (100.00)	89.64 (100.00)	109.62 (100.00)	129.57 (100.00)
Nagpur	31.86 (31.08)	41.32 (29.79)	42.53 (24.79)	41.64 (22.09)	10.87 (10.60)	9.40 (6.77)	8.43 (4.91)	6.42 (3.41)	102.50 (100.00)	138.70 (100.00)	171.53 (100.00)	188.48 (100.00)
Bhandara	19.79 (11.11)	20.31 (10.23)	14.52 (7.16)	16.13 (6.49)	4.34 (2.44)	3.71 (1.87)	1.97 (0.97)	1.79 (0.72)	178.11 (100.00)	198.50 (100.00)	202.67 (100.00)	248.67 (100.00)
Chandrapur	42.95 (23.25)	46.58 (22.38)	41.61 (17.98)	46.67 (17.40)	12.58 (6.81)	11.21 (5.38)	7.27 (3.14)	6.74 (2.51)	184.74 (100.00)	208.18 (100.00)	231.48 (100.00)	268.25 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the district.

as compared to that in 1970-71 in all the districts, while during 1980-81 the number declined in Jalgaon. During 1985-86, it declined in the districts of Kulaba, Kolhapur, Buldhana, Akola and Amravati as compared to the previous census year. The proportion of the number of semi-medium holdings to the total ranged between 15.33 per cent (Kulaba) to 26.90 per cent (Nagpur) in 1970-71 while in 1985-86, it ranged from 12.35 per cent (Kolhapur) to 33.87 per cent (Yavatmal). Comparing the number of semi-medium holdings in 1985-86 with 1970-71, was noted that the number was doubled in the districts of Ratnagiri, Dhule, Ahmednagar, all districts of Marathwada region and Yavatmal and Wardha districts (Vidarbha region).

iv. Changes in the number of individual medium holdings:

The medium holdings showed declining trend during the period of 4 censuses in Kolhapur district and mixed trend in the remaining districts. During 1976-77 all districts except Kulaba, Ratnagiri and Kolhapur showed an increase in the number of medium holdings as compared to that in 1970-71. The declining trend was observed in Thana, Kulaba, Dhule, Jalgaon, Ahmednagar, Pune, Solapur, Satara, Kolhapur, Parbhani, Buldhana, Akola, Amravati, Bhandara and Chandrapur during 1980-81 as compared to that in 1976-77. Comparing the number in 1985-86 with that in 1970-71 all the districts of Western Maharashtra (except Pune), Kulaba from Konkan and Nanded from Marathwada showed a declining trend. The proportion of the number of medium holdings to total ranged between 9.50 per cent (Kulaba) to 39.58 per cent (Yavatmal) during 1970-71. However, during 1985-86 it ranged from 5.19 per cent (Kolhapur) to 26.85 per cent (Osmanabad).

v. Changes in the number of individual large holding:

The number of large individual holdings was relatively smaller as compared to other size classes. The proportion of large holdings to total ranged between 2.26 per cent (Kolhapur) to 20.97 per cent (Osmanabad) during 1970-71. However, this range in 1985-86 was 0.66 per cent (Kolhapur) to 6.43 per cent (Solapur). Thus, there was a drastic decline in the large holdings during the period.

From the above discussion one may say that there was increase in number of individual holdings of marginal, small, semi-medium and in medium (few districts) categories at the cost of large holdings. However, it is a partial truth because there was an increase in the total number of holdings from census to census in all the districts of the state. The total number of holdings was doubled in Beed district in 1985-86 as compared with that in 1970-71.

An attempt was made to calculate the changes in the number of individual operational holdings from one census to the other in terms of percentages for all districts. The data in this respect are presented in Table 5.6. The analysis is done by size classes below.

i. Percentage change in the number of individual marginal holdings:

The percentage change in the number of marginal individual holdings indicated that there was an increase over 50 per cent during 1976-77 over 1970-71 in the districts of Beed, Parbhani, Aurangabad, Nanded, Osmanabad (all from Marathwada region) and Ahmednagar. The lowest percentage increase during this period was observed in Ratnagiri (2.58 per cent), while the highest was in Beed (97.50 per cent). During the period from 1976-77 to 1980-81 the highest percentage increase in the number of marginal individual holdings was observed

Table 5.6 Percentage changes in the number of individual operational holdings by size-classes for different census periods in different districts of Maharashtra.

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	13.84	7.49	28.59	57.37	24.68	9.00	13.25	53.93	8.89	7.30	3.55	21.00
Kulaba	13.42	8.93	102.01	26.05	8.62	4.58	-4.81	8.13	2.78	2.35	-6.53	-1.67
Ratnagiri	2.58	15.69	10.83	31.53	5.65	15.60	22.79	49.28	4.87	19.56	115.63	169.73
WESTERN MAHARASHTRA												
Nasik	26.95	14.65	39.54	103.13	24.68	16.64	53.64	123.45	18.67	17.83	18.79	66.12
Dhule	10.66	43.74	101.85	221.10	18.28	69.40	107.43	315.68	16.92	21.96	45.01	106.80
Jalgaon	10.63	8.83	37.54	65.62	11.19	9.12	51.34	83.63	14.38	-1.44	19.69	34.93
Ahmednagar	53.14	36.53	42.05	197.01	44.95	31.67	55.00	195.86	34.96	29.01	19.46	108.02
Pune	23.24	9.41	37.12	84.90	20.50	21.33	30.77	91.20	13.05	17.33	18.65	57.39
Solapur	20.65	4.41	50.06	89.04	23.95	16.29	72.16	148.00	15.65	13.51	46.75	93.27
Satara	22.38	34.94	46.29	141.60	23.65	25.60	37.88	114.17	15.96	10.85	14.30	46.94
Sangli	19.45	26.59	44.30	118.23	17.72	23.21	28.10	85.82	13.06	15.33	13.06	47.45
Kolhapur	21.27	17.14	28.61	82.72	21.36	6.08	11.88	44.06	10.68	100.37	-2.64	8.15
MARATHWADA												
Aurangabad	63.07	62.93	82.10	383.86	63.01	64.22	85.29	396.05	43.63	44.11	39.58	188.95
Parabhani	94.21	24.21	66.66	302.06	94.25	35.27	59.03	317.93	56.24	23.46	24.68	140.50
Beed	97.50	39.72	72.31	375.54	81.68	43.97	48.33	288.00	45.81	41.86	12.87	133.49
Nanded	57.31	34.03	58.33	233.86	60.75	34.96	69.50	267.76	30.19	79.18	35.52	122.84
Osmanabad	56.51	42.70	-10.25	100.45	69.22	48.17	51.99	281.12	39.57	26.59	40.85	148.87
VIDARBHA												
Buldhana	19.29	75.29	-6.46	95.59	30.14	49.23	11.54	116.64	33.03	37.05	-3.54	75.85
Akola	21.40	31.01	17.13	86.31	34.56	52.14	8.07	121.28	29.33	38.76	-5.85	68.95
Anaravati	13.03	37.09	6.04	64.34	30.90	32.10	33.99	131.72	23.32	21.35	-1.25	47.78
Yavatmal	21.61	174.32	26.17	320.96	91.26	87.78	32.69	376.56	45.16	65.66	14.12	174.44
Wardha	46.38	15.67	46.06	147.35	41.40	73.28	16.55	185.60	34.12	25.67	25.09	110.87
Nagpur	37.81	42.82	19.21	134.66	55.29	52.81	23.45	192.96	46.17	22.92	8.67	95.28
Bhandara	16.52	11.67	27.92	66.45	12.82	10.39	22.04	52.01	6.40	-10.88	14.25	8.33
Chandrapur	18.53	24.44	10.31	62.72	17.88	26.51	22.77	83.09	12.98	13.79	21.29	55.94

Table 5.6 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	3.89	-10.08	9.61	2.39	-9.94	-25.73	-10.16	-39.92	12.25	3.97	17.84	37.75
Kulaba	-4.67	-6.98	10.61	-1.91	-9.33	-24.48	-1.21	-32.36	8.46	4.98	-0.12	13.73
Ratnagiri	-0.51	11.36	-3.63	6.76	-6.42	-3.11	-5.28	-14.13	2.50	14.70	27.86	50.33
WESTERN MAHARASHTRA												
Nasik	5.66	0.94	-10.97	-5.05	-15.47	-27.80	-23.78	-53.49	13.46	8.49	19.83	47.52
Dhule	7.95	-0.05	-24.52	-18.57	-15.23	-46.22	-37.27	-71.40	10.52	19.69	45.44	91.18
Jalgaon	9.44	-2.10	-20.83	-15.19	18.48	-29.74	-44.91	-68.45	9.49	1.40	19.73	32.95
Ahmednagar	6.75	-7.93	-10.38	-11.92	-22.51	-33.12	-37.36	-67.54	23.46	16.29	23.51	77.83
Pune	2.40	-5.21	7.90	4.73	13.47	-23.89	-11.72	-41.86	12.26	7.91	23.43	49.54
Solapur	8.44	-4.28	9.16	13.30	-7.71	-33.91	-10.43	-45.38	11.02	0.05	35.11	50.09
Satara	1.17	-10.76	-11.90	-20.46	-16.91	-31.40	-33.53	-62.12	16.30	19.83	31.16	82.82
Sangli	0.79	0.60	-7.41	-5.96	-11.49	-22.75	-21.09	-46.05	12.21	16.58	24.56	62.95
Kolhapur	-10.12	-15.60	-10.04	-31.76	-20.96	-35.21	-15.77	-56.87	15.06	8.46	17.50	46.65
MARATHWADA												
Aurangabad	15.22	16.13	-9.40	21.23	-27.08	-16.71	-45.02	-66.61	25.11	34.16	35.68	27.76
Parabhani	24.18	-3.09	-8.62	9.95	-29.21	-51.02	-36.69	-78.05	35.08	8.87	24.55	83.18
Beed	17.68	11.64	-10.51	17.56	-18.15	-36.16	-34.41	-65.73	35.13	24.42	22.04	105.20
Nanded	3.74	-3.87	-19.79	-5.06	-26.84	-37.45	-35.42	-70.45	21.98	16.21	34.94	91.88
Osmanabad	15.45	8.58	6.24	33.19	-15.68	-22.72	-30.14	-54.49	23.65	18.17	27.11	85.81
VIDARBHA												
Buldhana	29.41	-1.75	-1.45	25.29	-7.24	-33.52	-26.56	-54.71	24.45	29.43	0.51	60.13
Akola	17.90	-6.32	5.51	16.53	-18.82	-26.87	-18.57	-51.66	19.76	23.02	3.47	52.46
Amaravati	13.74	-9.79	3.66	6.36	-20.96	-35.02	-10.59	-54.12	16.67	16.69	11.67	52.06
Yavatmal	20.84	3.00	-1.33	22.81	-13.00	-30.79	-21.53	-52.75	28.20	36.37	12.60	96.87
Wardha	21.07	1.36	8.54	33.22	-22.43	-23.94	-13.23	-48.81	24.29	22.28	18.19	79.82
Nagpur	29.69	2.92	-1.97	30.69	-13.52	-10.31	-23.84	-40.93	35.31	23.71	9.88	83.88
Bhandara	2.62	-28.50	11.08	18.49	-14.51	-46.90	-9.13	-58.75	11.44	2.10	22.69	39.61
Chandrapur	8.45	-10.66	12.16	8.66	-10.89	-35.14	-7.29	-46.42	12.68	11.19	15.88	45.20

in Yavatmal (174.32 per cent) followed by Buldhana (75.29 per cent) and Aurangabad (62.93 per cent).

Considering the period from 1980-81 to 1985-86, the highest increase was observed in Dhule (101.85 per cent) followed by the districts of Marathwada region, viz., Aurangabad (82.10 per cent), Beed (72.31 per cent), Parbhani (66.66 per cent) and Nanded (58.33 per cent). In the remaining districts it was below 50 per cent. A moderate increase was noted in the districts of Satara, Sangli and Wardha. Considering the whole period of 15 years (1970-71 to 1985-86), more than 300 per cent increase was seen in Aurangabad, Parbhani, Beed (all from Marathwada) and Yavatmal (Vidarbha). Thus, the process of diminution of holdings was spread over Marathwada region and followed by Vidarbha and Western Maharashtra. The Konkan region already had the predominancy of marginal and small holdings.

ii. Percentage change in the number of individual small holdings:

During the period from 1970-71 to 1976-77, more than 50 per cent increase was observed in Parbhani, Aurangabad, Beed, Nanded, Osmananbad (all from Marathwada) and Yavatmal, Nagpur (from Vidarbha). During the period from 1976-77 to 1980-81, the number of small holdings notably increased in the districts of Vidarbha region - Yavatmal, Wardha, Nagpur, Akola followed by Dhule (Western Maharashtra) and Aurangabad (Marathwada). In the remaining districts, there was moderate increase, i.e., below 50 per cent. The number of small holdings increased to double in Dhule (107.43 per cent) and was the largest increase during the period. Considering the period of 15 years from 1970-71 to 1985-86, the number of small holdings showed about quadrupled in Aurangabad and more than trebled in Yavatmal, Parbhani, Dhule districts.

iii. Percentage change in the number of individual semi-medium holdings:

The number of semi-medium holdings showed a moderate increase (below 50 per cent) during 1976-77 over that in 1970-71 in all the districts of the state except Parbhani (56.24 per cent). The lowest increase (2.78 per cent) was observed in Kulaba district (Konkan region). For the period from 1976-77 to 1980-81, there was a negative figure for Jalgaon (-1.44) whereas the increase was above 100 per cent in Kolhapur (100.37). During the period 1980-81 to 1985-86, Buldhana, Akola, Amravati (Vidarbha), Kulaba (Konkan) and Kolhapur (Western Maharashtra) showed reduction in the number of semi-medium individual holdings. The largest increase was observed in Ratnagiri (115.63 per cent). Considering the period of 15 years (1970-71 to 1985-86), the highest percentage increase in the number of holdings was in Aurangabad (188.95 per cent). The districts showing above 100 per cent increase included Parbhani, Beed, Nanded, Osmanabad (all from Marathwada), Yavatmal, Wardha (from Vidarbha), Ahmednagar, Dhule from (W. Maharashtra) and Ratnagiri (Konkan).

iv. Percentage change in the number of individual medium holdings:

The number of medium holdings showed a declining trend during the study period (1970-71 to 1985-86) in Kolhapur district. The change during the period from 1970-71 to 1976-77 ranged between 0.79 per cent (Sangli) to 29.69 per cent (Nagpur). The moderate increase was observed in the districts of Vidarbha region of the State. During 1976-77 to 1980-81, there was an increasing trend in Ratnagiri, Nasik, Sangli, Aurangabad, Beed, Osmanabad, Wardha and Nagpur. In the remaining districts, the figures were negative. Similar pattern of change was observed during 1985-86 over 1980-81. The districts with positive figures were Thana, Kulaba, Pune, Solapur, Osmanabad,

Akola, Amaravati, Wardha, Bhandara and Chandrapur. Considering the period of 15 years (1970-71 to 1985-86) a mixed trend was shown by the districts. The change ranged between -31.76 per cent (Kolhapur) to 33.22 per cent (Wardha). A declining trend was observed in Nasik, Dhule, Jalgaon, Ahmednagar, Satara, Sangli, Kolhapur (all from Western Maharashtra) and Kulaba district (from Konkan).

v. Percentage change in the number of individual large holdings:

The number of individual large holdings showed a clear declining trend in all the districts during 1970-71 to 1976-77 except Jalgaon (18.48 per cent) and Pune (13.47 per cent) districts. For the subsequent periods, viz., 1976-77 to 1980-81, 1980-81 to 1985-86 and total period of 15 years (1970-71 to 1985-86) the individual large holdings showed a negative trend in all the districts. The decline ranged from -14.13 per cent (Ratnagiri) to -70.45 per cent (Nanded). Thus, the number of individual operational holdings under marginal, small, semi-medium size group was increasing while that under the large size group was declining during the period of four census years and for the total period (1970-71 to 1985-86). The proportion of number of marginal holdings to the district total was more than half in Kulaba and Kolhapur followed by Thana, Ratnagiri, Satara, Sangli, Bhandara and Chandrapur (all above one third). The small and semi-medium holdings showed increasing trend over a period. The medium holdings were more than one-third for 1970-71 in all districts of Marathwada, Yavatmal of Vidarbha and Dhule of Western Maharashtra which declined during successive census years. The large holdings declined from 4.34 per cent (Bhandara) in 1970-71 to less than two per cent during 1985-86.

Considering the period of 15 years (1970-71 to 1985-86) drastic changes were observed in all districts of Marathwada region, Yavatmal, Nagpur Wardha

of Vidarbha region and Dhule, Ahmednagar districts of Western Maharashtra. There was a four fold increase in the number of marginal and small sized 'individual' operational holdings in Aurangabad, Parbhani and Yavatmal districts. It indicated that the process of diminution of holdings which was already started in Western Maharashtra was spread over to Marathwada and Vidarbha regions. The process was relatively more rapid in Parbhani district.

5.1.4 Changes in the Distribution of Area of Individual Operational Holdings in Different Districts:

The district-wise area of individual holdings by size classes for the four agricultural censuses is presented in Table 5.7. The results are discussed below by size classes.

i. Changes in the area of individual marginal holdings:

The area of marginal individual holdings indicated a clear increasing trend during the period from 1970-71 to 1980-81 in all the districts in the State. During 1985-86, the area showed a decline as compared to the area in 1980-81 in Kulaba and Buldhana districts. During 1970-71, Aurangabad, Parbhani, Beed, Osmanabad (all from Marathwada) and Yavatmal (Vidarbha) districts had an area under marginal individual holdings category less than one per cent of the total area of the respective districts. During 1985-86 as compared to that in 1970-71, the area under marginal holdings showed a drastic increase in Sangli, Dhule, Ahmednagar, Satara (W. Maharashtra), Aurangabad, Parbhani, Beed, Nanded, Osmanabad (Marathwada), Yavatmal, Wardha and Nagpur (Vidarbha) districts. The proportion of the area under marginal holdings ranged between 1.38 per cent (Yavatmal) to 19.18 per cent (Kolhapur) in 1985-86 census.

Table 5.7 Distribution of the area of individual operational holdings by size-classes in different districts of Maharashtra

(Area in thousand hectares)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	26.59 (6.71)	30.92 (7.67)	35.22 (9.60)	41.61 (10.83)	36.80 (9.29)	46.00 (11.40)	52.57 (14.33)	54.93 (14.30)	66.06 (16.68)	71.93 (17.83)	78.22 (21.31)	79.49 (20.69)
Kulaba	40.09 (11.00)	44.56 (12.53)	50.12 (15.18)	48.63 (14.59)	51.56 (14.15)	55.43 (15.59)	58.96 (17.86)	55.91 (16.77)	75.27 (20.66)	76.86 (21.61)	75.44 (22.85)	73.80 (22.14)
Ratnagiri	63.23 (6.04)	65.10 (6.40)	82.12 (7.32)	83.10 (7.49)	87.92 (8.40)	92.94 (9.14)	110.37 (9.84)	131.28 (11.84)	175.52 (16.78)	184.41 (18.13)	220.00 (19.61)	210.13 (18.95)
WESTERN MAHARASHTRA												
Nasik	19.30 (1.90)	23.75 (2.35)	37.73 (3.85)	40.54 (4.28)	53.23 (5.24)	65.84 (6.50)	91.64 (9.36)	118.34 (12.47)	155.25 (15.29)	184.52 (18.23)	218.57 (22.33)	247.88 (26.13)
Dhule	9.90 (1.44)	10.94 (1.60)	18.19 (2.67)	31.62 (4.70)	33.93 (4.94)	39.86 (5.83)	69.83 (10.23)	137.06 (20.35)	106.06 (15.45)	121.72 (17.81)	146.38 (21.45)	203.54 (30.23)
Jalgaon	22.47 (2.71)	24.42 (2.98)	28.96 (3.73)	38.77 (5.27)	76.98 (9.28)	86.88 (10.61)	98.08 (12.62)	146.40 (19.89)	176.95 (21.34)	190.46 (23.26)	192.10 (24.73)	226.17 (30.72)
Ahmednagar	23.11 (1.74)	33.97 (2.66)	50.13 (4.09)	82.98 (6.48)	61.82 (4.66)	89.74 (7.02)	129.20 (10.55)	221.63 (17.32)	175.98 (13.26)	236.62 (18.52)	304.80 (24.89)	383.20 (29.95)
Pune	36.52 (3.20)	43.97 (3.94)	52.17 (4.98)	68.44 (6.01)	73.86 (6.48)	88.32 (7.90)	106.16 (10.14)	141.68 (12.45)	177.52 (15.57)	199.99 (17.90)	232.31 (22.18)	274.41 (24.10)
Solapur	14.15 (1.12)	16.70 (1.33)	20.03 (1.87)	29.83 (2.57)	44.08 (3.50)	54.76 (4.36)	66.46 (6.20)	109.79 (9.22)	140.29 (11.14)	161.39 (12.86)	184.12 (17.18)	261.58 (21.98)
Satara	47.18 (6.40)	55.76 (7.39)	78.85 (10.49)	115.51 (14.36)	79.81 (10.83)	98.58 (13.06)	129.50 (17.23)	173.97 (21.63)	156.01 (21.18)	181.14 (23.99)	199.75 (26.58)	226.69 (28.19)
Sangli	33.32 (4.69)	39.79 (5.67)	50.75 (7.40)	71.07 (10.10)	61.58 (8.66)	72.99 (10.39)	89.54 (13.06)	112.99 (16.06)	125.30 (17.62)	140.41 (20.00)	161.81 (23.60)	179.74 (25.54)
Kolhapur	55.85 (10.80)	63.91 (12.39)	79.66 (16.67)	94.67 (19.18)	73.57 (14.23)	88.87 (17.24)	95.57 (20.00)	105.38 (21.34)	121.68 (23.53)	119.62 (23.20)	132.79 (27.79)	128.68 (26.06)
MARATHWADA												
Aurangabad	11.31 (0.85)	18.32 (1.42)	33.61 (2.30)	56.74 (3.86)	43.76 (3.27)	72.06 (5.58)	129.07 (8.82)	216.26 (14.71)	156.91 (11.72)	221.68 (17.17)	322.66 (22.06)	433.26 (29.48)
Parabhani	7.20 (0.69)	14.20 (1.37)	20.13 (2.22)	30.36 (3.36)	29.90 (2.87)	57.46 (5.54)	81.83 (9.01)	122.87 (13.61)	112.58 (10.82)	172.77 (16.64)	210.39 (23.18)	260.14 (28.83)
Beed	9.17 (0.97)	17.59 (1.85)	26.05 (2.74)	43.25 (4.68)	32.31 (3.41)	57.73 (6.07)	84.52 (8.89)	125.31 (13.56)	106.87 (11.30)	153.95 (16.19)	215.65 (22.68)	240.90 (26.07)
Wanded	11.11 (1.39)	17.94 (2.29)	25.57 (3.32)	39.47 (4.84)	36.86 (4.62)	56.58 (7.22)	81.01 (10.52)	132.41 (16.22)	121.47 (15.22)	155.45 (10.84)	194.69 (25.28)	254.37 (31.16)
Osmanabad	7.84 (0.62)	12.67 (0.99)	19.40 (1.54)	29.96 (2.29)	33.79 (2.64)	57.15 (4.49)	88.95 (7.09)	134.37 (10.28)	127.09 (9.94)	175.47 (13.77)	225.61 (17.98)	312.12 (23.87)
VIDARBHA												
Buldhana	14.28 (2.16)	16.56 (2.28)	32.61 (4.54)	27.78 (4.17)	42.70 (6.48)	60.40 (8.31)	91.81 (12.77)	98.63 (14.82)	98.27 (14.89)	129.97 (17.88)	176.74 (24.58)	168.72 (25.34)
Akola	15.39 (1.95)	18.96 (2.43)	25.53 (3.25)	30.35 (4.03)	48.26 (6.12)	66.95 (8.59)	106.95 (13.63)	106.26 (14.10)	108.65 (13.79)	139.11 (17.84)	191.24 (24.37)	179.63 (23.85)
Amaravati	22.21 (3.06)	25.78 (3.62)	36.03 (5.22)	37.62 (5.34)	60.96 (8.39)	81.50 (11.44)	111.13 (16.09)	139.73 (19.85)	117.73 (16.21)	144.99 (20.35)	179.12 (25.94)	170.68 (24.24)
Yavatmal	3.07 (0.33)	3.81 (0.42)	12.00 (1.29)	12.73 (1.38)	23.24 (2.54)	43.96 (2.82)	85.68 (9.23)	116.10 (12.57)	91.40 (9.97)	133.28 (14.62)	217.28 (23.40)	241.12 (26.10)
Wardha	4.07 (1.01)	6.44 (1.61)	7.82 (1.95)	11.33 (2.55)	19.07 (4.72)	27.81 (6.96)	44.62 (11.12)	54.02 (12.16)	55.37 (13.69)	73.89 (18.50)	90.80 (22.63)	114.47 (25.76)
Nagpur	7.99 (1.62)	11.70 (2.08)	16.40 (2.72)	19.95 (3.33)	27.97 (5.67)	43.25 (7.69)	67.32 (11.16)	85.71 (14.32)	79.86 (16.28)	115.34 (20.52)	142.75 (23.66)	152.02 (25.39)
Bhandara	37.69 (10.25)	44.02 (11.44)	50.06 (15.33)	62.29 (16.90)	59.82 (16.27)	66.92 (17.38)	76.52 (23.43)	89.16 (24.18)	93.51 (25.43)	99.73 (25.91)	87.33 (26.74)	99.99 (27.12)
Chandrapur	23.87 (3.56)	28.60 (4.19)	39.61 (6.27)	41.09 (5.79)	54.91 (8.18)	65.16 (9.55)	81.80 (12.94)	99.82 (14.06)	130.26 (19.42)	145.10 (21.27)	161.23 (25.51)	194.82 (27.45)

Table 5.7 (Continued....)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	124.18 (31.36)	126.98 (31.49)	112.97 (30.78)	125.56 (32.68)	142.42 (35.96)	127.47 (31.61)	88.02 (23.98)	82.63 (21.50)	396.05 (100.00)	403.30 (100.00)	367.00 (100.00)	384.22 (100.00)
Kulaba	100.10 (27.48)	96.07 (27.01)	90.46 (27.40)	97.02 (29.10)	97.29 (26.71)	82.72 (23.26)	55.11 (16.71)	58.00 (17.40)	364.31 (100.00)	355.64 (100.00)	330.09 (100.00)	333.36 (100.00)
Ratnagiri	348.28 (33.29)	342.35 (33.66)	378.01 (33.70)	367.17 (33.12)	371.36 (35.49)	332.24 (32.67)	331.16 (29.53)	317.06 (28.60)	1046.31 (100.00)	1017.04 (100.00)	1121.66 (100.00)	1108.74 (100.00)
WESTERN MAHARASHTRA												
Nasik	415.86 (40.96)	435.00 (42.96)	425.32 (43.44)	377.31 (39.77)	371.72 (36.61)	303.36 (29.96)	205.79 (21.02)	164.56 (17.35)	1015.36 (100.00)	1012.47 (100.00)	979.05 (100.00)	948.63 (100.00)
Dhule	319.13 (46.47)	338.56 (49.55)	344.26 (50.46)	240.15 (35.67)	217.71 (31.70)	172.29 (25.21)	103.62 (15.10)	60.95 (9.05)	686.73 (100.00)	683.37 (100.00)	682.27 (100.00)	673.32 (100.00)
Jalgaon	323.97 (39.07)	347.92 (42.49)	337.27 (43.41)	261.6 (35.46)	228.91 (27.60)	169.11 (20.66)	120.49 (15.51)	63.76 (8.66)	829.28 (100.00)	818.79 (100.00)	776.90 (100.00)	736.16 (100.00)
Ahmednagar	485.16 (36.54)	501.58 (39.25)	458.26 (37.42)	397.41 (31.06)	581.48 (43.80)	416.05 (35.55)	282.25 (23.05)	194.38 (15.19)	1327.55 (100.00)	1277.96 (100.00)	1224.64 (100.00)	1279.59 (100.00)
Pune	413.86 (36.31)	417.21 (37.33)	387.93 (37.04)	402.45 (35.85)	438.14 (38.44)	368.02 (32.93)	268.66 (25.66)	251.45 (22.09)	1139.90 (100.00)	1117.51 (100.00)	1047.23 (100.00)	1138.43 (100.00)
Solapur	439.02 (34.85)	469.59 (37.41)	446.79 (41.68)	477.54 (40.13)	622.15 (49.39)	552.88 (44.04)	354.41 (33.07)	311.10 (26.14)	1259.69 (100.00)	1255.32 (100.00)	1071.81 (100.00)	1189.84 (100.00)
Satara	263.62 (35.79)	260.35 (34.49)	233.13 (31.02)	200.70 (24.95)	190.04 (25.80)	159.06 (21.07)	110.28 (14.68)	87.45 (10.87)	736.66 (100.00)	754.89 (100.00)	751.51 (100.00)	804.32 (100.00)
Sangli	241.94 (34.02)	242.69 (34.56)	248.90 (36.31)	219.41 (31.18)	248.95 (35.01)	206.34 (29.38)	134.53 (19.63)	120.43 (17.12)	711.09 (100.00)	702.22 (100.00)	685.53 (100.00)	703.70 (100.00)
Kolhapur	170.97 (33.06)	154.10 (29.88)	125.80 (26.32)	113.18 (22.93)	95.07 (18.38)	89.18 (17.29)	44.07 (9.22)	51.79 (10.49)	517.14 (100.00)	515.68 (100.00)	477.89 (100.00)	493.70 (100.00)
MARATHWADA												
Aurangabad	515.13 (38.49)	573.68 (44.93)	657.00 (44.92)	575.98 (39.18)	611.34 (45.67)	405.34 (31.40)	320.41 (21.90)	187.72 (12.77)	1338.45 (100.00)	1291.08 (100.00)	1462.75 (100.00)	1469.96 (100.00)
Parabhani	392.05 (37.68)	468.73 (45.16)	435.79 (48.01)	392.90 (43.54)	498.83 (47.94)	324.74 (31.29)	159.64 (17.58)	96.16 (10.66)	1040.56 (100.00)	1037.90 (100.00)	907.78 (100.00)	902.43 (100.00)
Beed	337.35 (36.66)	383.93 (40.38)	424.73 (44.68)	369.36 (39.96)	460.34 (48.66)	337.60 (35.51)	199.73 (21.01)	145.40 (15.73)	946.04 (100.00)	950.80 (100.00)	950.68 (100.00)	924.22 (100.00)
Wanded	366.02 (45.87)	372.72 (47.56)	348.21 (45.21)	318.88 (39.07)	262.55 (32.90)	180.91 (23.09)	120.67 (15.67)	71.05 (8.71)	798.01 (100.00)	783.60 (100.00)	770.15 (100.00)	816.18 (100.00)
Osmanabad	462.24 (36.15)	522.02 (40.97)	553.91 (44.14)	576.67 (44.11)	647.61 (50.65)	506.81 (39.78)	367.08 (29.25)	254.34 (19.45)	1278.57 (100.00)	1274.12 (100.00)	1254.95 (100.00)	1307.46 (100.00)
VIDARBHA												
Buldhana	219.95 (33.34)	280.44 (38.58)	268.02 (37.28)	264.36 (39.71)	284.57 (43.13)	239.52 (32.95)	149.79 (20.83)	106.21 (15.96)	659.77 (100.00)	726.89 (100.00)	718.97 (100.00)	665.70 (100.00)
Akola	262.77 (33.35)	308.30 (39.54)	284.28 (36.22)	293.19 (38.92)	352.93 (44.79)	246.32 (31.60)	176.86 (22.53)	143.86 (19.10)	788.00 (100.00)	779.64 (100.00)	784.86 (100.00)	753.29 (100.00)
Amaravati	240.57 (33.13)	270.02 (37.90)	241.13 (34.92)	247.23 (35.11)	284.70 (39.21)	190.18 (26.69)	123.13 (17.83)	108.81 (15.46)	726.17 (100.00)	712.47 (100.00)	690.54 (100.00)	704.07 (100.00)
Yavatmal	322.32 (35.15)	387.83 (42.53)	388.14 (41.79)	375.63 (40.66)	476.95 (52.01)	342.92 (37.61)	225.62 (24.29)	178.19 (19.29)	916.98 (100.00)	911.80 (100.00)	928.72 (100.00)	923.77 (100.00)
Wardha	148.51 (36.74)	177.01 (44.31)	175.23 (43.68)	188.06 (42.31)	177.23 (43.84)	114.33 (28.62)	82.72 (20.62)	76.55 (17.22)	404.25 (100.00)	399.48 (100.00)	401.19 (100.00)	444.43 (100.00)
Nagpur	198.25 (40.17)	252.59 (44.94)	256.19 (42.46)	248.47 (41.50)	179.48 (36.36)	139.20 (24.77)	120.65 (20.00)	92.54 (15.46)	493.55 (100.00)	562.08 (100.00)	603.31 (100.00)	598.69 (100.00)
Bhandara	117.21 (31.87)	119.91 (31.15)	84.63 (25.92)	91.67 (24.86)	59.51 (16.18)	54.35 (14.12)	28.00 (8.58)	25.57 (6.94)	367.74 (100.00)	384.93 (100.00)	326.54 (100.00)	368.68 (100.00)
Chandrapur	262.02 (39.06)	281.41 (41.24)	247.12 (39.09)	276.06 (38.89)	199.83 (29.78)	162.02 (23.75)	102.38 (16.19)	98.02 (13.81)	670.89 (100.00)	682.29 (100.00)	632.14 (100.00)	709.81 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the district.

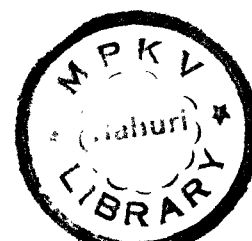
ii. Changes in the area of individual small holdings:

The area of individual small holdings during the period from 1970-71 to 1985-86 showed a clear positive trend in all the districts. The exception was of Kulaba and Akola districts during 1985-86 as compared to that in 1980-81. The proportion of area under small holdings ranged from 2.54 per cent (Yavatmal) to 16.27 per cent (Bhandara) in 1970-71. In 1985-86 it was 9.22 per cent (Solapur) to 24.18 per cent (Bhandara). The drastic increase in the area of small holdings was observed in Yavatmal, Aurangabad and Dhule. It was followed by Parbhani, Beed, Nanded, Osmanabad, Wardha, Nagpur and Ahmednagar districts. Thus, in general, the districts of Marathwada showed the first order increase in the area of small holdings followed by Vidarbha region.

iii. Changes in the area of individual semi-medium holdings:

The proportion of area under semi-medium holdings ranged from 9.94 per cent (Osmanabad) to 25.43 per cent (Bhandara) during 1970-71 census. The reduction in the area of semi-medium holdings was observed in Kolhapur during 1976-77, Kulaba and Bhandara during 1980-81, Kulaba, Ratnagiri, Kolhapur, Buldhana, Akola and Amaravati during 1985-86 as compared to that in the respective previous census years. The proportion of area in 1985-86 ranged from 18.95 per cent in Ratnagiri to 31.16 per cent in Nanded. Considering the total period (1970-71 to 1985-86), there was a decline in the area under this category in Kulaba and drastic increase in Aurangabad, Parbhani, Beed, Nanded, Osmanabad (Marathwada region), Yavatmal (Vidarbha) and Ahmednagar (Western Maharashtra).

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iv. Changes in the area of individual medium holdings:

The area under medium holdings showed a mixed trend from census to census. Only in Osmanabad district, there was a clear positive trend for the period of four censuses. In 1970-71, the proportion of area of medium holdings ranged from 27.48 per cent (Kulaba) to 46.47 per cent (Dhule). The same for 1985-86 ranged from 22.93 per cent (Kolhapur) to 44.11 per cent (Osmanabad). Considering the period of 15 years (1970-71 to 1985-86) a drastic decline was noted in the districts of Western Maharashtra, Nanded district from Marathwada, and Bhandara district from Vidarbha. A larger increase in the area under medium holdings was observed in the districts of Vidarbha region except Bhandara. The districts of Konkan region showed a marginal change.

v. Changes in the area of individual large holdings:

The area under large holdings was found to be declining from census to census in all the districts during the period under study. The proportion of area under large holdings in 1970-71 ranged from 16.18 per cent (Bhandara) to 52.01 per cent (Yavatmal). After 15 years the same came down and ranged from 6.94 per cent (Bhandara) to 28.60 per cent (Ratnagiri).

The overall area of individual holdings was observed to be declining in all the districts in the State (with few exceptions) during the period of 15 years (1970-71 to 1985-86).

The percentage change in the area of holdings from one census to another and during the entire period of four censuses was estimated and the same is presented in Table 5.8. The analysis is done by size classes of holdings as done earlier.

Table 5.8 Percentage changes in the area of individual operational holdings by size-classes for different census periods in different districts of Maharashtra

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	16.28	13.90	18.14	056.48	25.00	14.28	4.48	49.26	8.88	8.74	1.62	20.33
Kulaba	11.14	12.47	-2.97	021.30	7.50	06.36	-5.17	8.43	2.11	-1.84	-2.17	-1.95
Ratnagiri	2.95	26.14	1.19	031.42	5.70	18.75	18.94	49.31	5.06	19.29	-4.48	19.71
WESTERN MAHARASHTRA												
Nasik	23.05	58.86	7.44	110.05	23.68	39.18	29.13	122.31	18.85	18.45	13.40	59.66
Dhule	10.50	66.27	73.83	219.39	17.47	75.18	96.27	303.94	14.76	20.25	39.04	91.91
Jalgaon	8.67	18.59	33.87	072.54	12.86	12.89	49.26	90.17	7.63	0.8	17.73	27.81
Ahmednagar	46.99	47.57	65.52	259.06	45.16	43.97	71.54	258.50	34.45	28.81	25.72	117.75
Pune	20.39	18.64	31.18	87.40	19.57	20.19	33.45	91.82	12.65	16.16	18.12	54.57
Solapur	18.02	19.94	48.92	110.81	24.22	21.36	65.19	149.06	15.04	14.08	42.07	86.45
Satara	18.18	41.40	46.49	144.82	23.51	31.36	34.33	117.98	16.10	10.27	13.48	45.30
Sangli	19.41	27.54	40.03	113.29	18.52	22.67	26.18	83.48	12.05	15.24	11.08	43.44
Kolhapur	14.43	24.64	18.84	69.50	20.79	07.53	10.26	43.23	-1.69	11.00	-3.09	5.75
MARATHWADA												
Aurangabad	61.98	83.46	68.81	401.67	64.67	79.11	67.55	394.19	41.27	45.55	34.27	176.12
Parabhani	97.22	41.76	50.81	321.66	92.17	42.41	50.15	310.93	53.46	21.77	23.64	131.07
Beed	91.82	48.09	66.02	371.64	78.67	46.40	48.26	287.83	44.05	40.07	11.70	125.41
Nanded	61.47	42.53	54.36	255.26	53.49	43.17	63.44	259.22	27.97	25.24	30.65	109.40
Osmanabad	61.60	53.11	54.43	282.14	69.13	55.64	51.06	297.66	38.06	28.57	38.34	145.58
VIDARBHA												
Buldhana	15.96	96.92	-14.81	94.53	41.45	52.00	7.42	130.98	32.25	35.98	-4.53	71.69
Akola	23.19	34.65	18.87	97.20	38.72	59.74	-0.64	120.18	28.03	37.47	-6.07	65.32
Amaravati	16.07	39.75	4.41	69.38	33.69	36.35	25.73	129.21	23.15	23.53	-4.71	44.97
Yavatmal	24.10	214.96	6.08	314.65	89.15	94.90	35.50	399.56	45.82	63.02	10.97	163.80
Wardha	58.23	21.42	44.88	178.37	45.83	60.44	21.06	183.27	33.44	22.88	26.6	106.73
Nagpur	46.43	40.17	21.64	149.69	54.62	55.65	27.31	206.43	44.42	23.76	6.49	90.35
Bhandara	16.79	13.72	24.43	65.26	11.86	14.34	16.51	49.04	6.65	-12.43	14.49	6.92
Chandrapur	19.81	38.50	3.74	72.14	18.66	25.53	22.02	81.78	11.39	11.12	20.83	49.56

Table 5.8 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	2.25	-11.03	11.14	1.11	-10.49	-30.94	-6.12	-41.98	1.83	-9.00	4.69	-2.98
Kulaba	-4.02	-5.83	7.25	-3.07	-14.97	-33.37	-5.24	-40.38	-2.37	-7.18	0.99	-8.49
Batnagiri	-1.70	10.41	-2.86	5.42	-10.53	-0.32	-4.25	-14.62	-2.79	10.28	-1.15	5.96
WESTERN MAHARASHTRA												
Nasik	4.60	-2.22	-11.28	-9.26	-18.39	-32.16	-20.03	-55.73	-0.28	-3.30	-3.10	-6.57
Dhule	6.08	1.68	-30.24	-24.74	-20.86	-39.86	-41.17	-72.00	-0.48	-0.16	-1.31	-1.95
Jalgaon	7.39	-3.06	-22.59	-19.41	-26.12	-28.75	-47.08	-72.14	-1.26	-5.11	-5.24	11.22
Ahmednagar	3.38	-8.63	-13.28	-18.09	-28.44	-32.15	-31.13	-66.57	-3.73	-4.17	4.48	-3.61
Pune	0.80	-7.01	3.74	-2.75	-16.00	-26.99	-6.40	-42.60	-1.96	-6.28	8.70	-0.12
Solapur	6.96	-4.85	6.88	8.77	-11.13	-35.89	-12.22	-49.99	-0.34	-14.61	11.01	-5.54
Satara	-1.24	-10.45	-13.91	-23.86	-16.30	-30.66	-20.70	-53.98	2.47	-0.44	7.02	9.18
Sangli	0.30	2.55	-11.84	-9.31	-17.11	-34.80	-10.43	-51.60	-1.24	-2.37	2.65	-1.03
Kolhapur	-9.86	-18.36	-10.03	-33.80	-6.19	-50.58	-17.51	-45.52	-0.28	-7.32	3.30	-4.53
MARATHWADA												
Aurangabad	11.36	14.52	-12.33	11.81	-33.69	-20.95	-41.41	-69.29	-3.53	13.29	0.49	9.82
Parabhani	19.55	-7.02	-9.84	0.21	-34.89	-50.84	-39.76	-80.72	-0.25	-12.53	-0.58	-13.27
Beed	13.80	10.62	-13.03	9.48	-26.66	-40.83	-27.20	-68.41	0.50	-0.01	-2.78	-2.30
Wanded	1.83	-6.57	-8.42	-12.87	-31.09	-33.29	-41.12	-72.93	-1.80	-1.71	5.97	2.27
Oswanabad	12.93	6.10	4.10	24.75	-21.74	-27.57	-30.71	-60.72	-0.34	-1.50	4.18	2.25
VIDARBHA												
Buldhana	27.50	-4.42	-1.36	20.19	-15.83	-37.46	-29.09	-62.67	10.17	-1.08	-7.40	0.89
Akola	17.32	-7.79	3.13	11.57	-30.20	-28.19	-18.65	-59.23	-1.06	0.66	-4.02	-4.40
Amaravati	12.24	-10.69	02.52	2.76	-33.20	-35.25	-11.62	-61.78	-1.88	-3.07	1.95	-3.04
Yavatmal	30.32	0.07	-3.22	16.53	-28.10	-34.20	-21.02	-62.63	-0.56	1.85	-0.53	0.74
Wardha	19.19	-1.00	7.32	26.63	-35.45	-27.64	-7.45	-56.80	-1.17	0.42	10.77	9.93
Nagpur	27.40	1.42	-3.01	25.33	-22.44	-13.32	-23.29	-48.43	13.88	7.33	-0.76	21.30
Bhandara	2.30	-29.42	8.31	-21.78	-8.67	-48.48	-8.67	-57.03	4.67	-15.16	12.90	0.25
Chandrapur	7.40	-12.18	11.71	5.35	-18.92	-36.81	-4.25	-50.94	1.69	-7.35	12.28	5.80

i. Percentage change in the area of individual marginal holdings:

The percentage change in the area of individual marginal holdings indicated positive trend in all the districts during the periods from 1970-71 to 1976-77, 1976-77 to 1980-81 and 1980-81 to 1985-86. The only exception for 85-86 over 80-81 was in respect of Kulaba (-2.97 per cent) and Buldhana (-14.81 per cent) districts which showed a decline in the area. The highest percentage increase in the area of individual marginal holdings for the period 1970-71 to 1976-77 was observed in Parbhani district (97.22 per cent) followed by Beed, Nanded, Osmanabad, Aurangabad (all from Marathwada region) and Wardha districts (Vidarbha). In the remaining districts, the area increased by less than 50 per cent. During 1976-77 to 1980-81, the largest increase (214.96 per cent) was observed in Yavatmal. The area increased more than 50 per cent in Buldhana, Aurangabad, Osmanabad, Nasik and Dhule districts. The largest increase during 1980-81 to 1985-86 was observed in Dhule district (73.83 per cent). It was followed by Ahmednagar and all the districts of Marathwada region where it was above 50 per cent. Considering the period of 15 years (1970-71 to 1985-86), the area quadrupled in Aurangabad, tripled in Parbhani, Beed (all from Marathwada), Yavatmal (Vidarbha).

ii. Percentage change in the area of individual small holdings:

A moderate increase in the area of individual small holdings for the periods 1970-71 was observed in all the districts of the State. A marginal decline was noted in Kulaba (-5.17 per cent) and Akola districts (-0.64 per cent) during 1980-81 to 1985-86, while there was an increasing trend in the remaining districts. During the period from 1970-71 to 1976-77, the highest increase was observed in Parbhani district (92.17 per cent). During the period from 1976-77

to 1980-81 the percentage increase in the area ranged from 6.36 per cent (Kulaba) to 94.90 per cent Yavatmal. During 1980-81 to 1985-86, the largest percentage increase in the area was observed in Dhule (96.27 per cent) followed by Aurangabad (67.55 per cent), Nanded (63.44 per cent), Osmanabad (51.06 per cent) and Parbhani (50.15 per cent). In the remaining districts, it was below 50 per cent.

Considering the period from 1970-71 to 1985-86, the area of individual small holdings quadrupled in Yavatmal district. It was followed by Aurangabad (394.19 per cent), Parbhani (310.93 per cent) and Dhule (303.94 per cent). In Ahmednagar, Beed, Nanded, Osmanabad and Nagpur districts, the increase was above 200 per cent.

iii. Percentage change in the area of individual semi-medium holdings:

The area of semi-medium individual holdings changed during 1970-71 to 1976-77 in the range of -1.69 per cent (Kolhapur) to 53.46 per cent (Parbhani). The percentage increase in the remaining districts was seen to be below 45 per cent. During the period from 1980-81 to 1985-86, Kulaba, Ratnagiri, Kolhapur (rice growing districts), Buldhana, Akola and Amaravati showed a decline. In the remaining districts, the increase ranged between 1.62 per cent (Thana) to 42.07 per cent (Solapur). Thus there was very small increase in area of individual semi-medium holdings during this period. Considering the period of 15 years (1970-71 to 1985-86) the change ranged from -1.95 per cent (Kulaba) to 176.12 per cent (Aurangabad).

iv. Percentage change in the area of individual medium holdings:

During the period from 1970-71 to 1976-77 the area under medium holdings declined in Kulaba (-4.02 per cent), Ratnagiri (-1.70 per cent), Satara (-1.24 per cent) and Kolhapur (-9.86 per cent). In the remaining districts there was an increase. The largest increase was in Buldhana (27.50 per cent) followed by Nagpur district (27.40 per cent). During 1976-77 to 1980-81, very marginal increase in the area under this category was observed in Ratnagiri, Dhule, Sangli, Aurangabad, Beed, Osmanabad, Yavatmal and Nagpur districts. In the remaining districts the figures were negative. The largest decline was seen in Bhandara (-29.42 per cent) followed by Kolhapur (-18.36 per cent). During 1980-81 to 1985-86 a positive change was observed in Akola, Amaravati, Wardha, Nagpur, Chandrapur (all from Vidarbha), Thana, Kulaba (Konkan), Pune (W. Maharashtra) and Osmanabad (Marathwada) which ranged between 2.52 per cent (Amaravati) and 11.71 per cent (Chandrapur). In the remaining districts, there was a negative trend ranging from -1.36 per cent (Buldhana) to 30.24 per cent (Dhule). Considering the total period from 1970-71 to 1985-86, the decline in the area of individual medium holdings was observed in Nasik, Dhule, Jalgaon, Ahmednagar, Pune, Satara, Sangli, Kolhapur districts (all from Western Maharashtra), Kulaba, Nanded and Bhandara. The highest reduction in the area was in Kolhapur (-33.80 per cent).

v. Percentage change in the area of individual large holdings:

The area under large holdings in all the districts during four study period showed a declining trend. The decline during 1970-71 to 1976-77 ranged from -6.19 per cent (Kolhapur) to -35.45 per cent (Wardha). During the period from 1976-77 to 1980-81, the highest down fall in area was observed in Parbhani (-

50.84 per cent), whereas the lowest decline was in Ratnagiri (-0.32 per cent). Comparatively the area lost by large holdings during 1976-77 to 1980-81 was higher than that during 1970-71 to 1976-77. Considering the period from 1980-81 to 1985-86, the decline ranged from -4.25 per cent (Ratnagiri, Chandrapur) to -47.08 per cent (Jalgaon). During the period of 15 years (1970-71 to 1985-86), the decline in area of large holdings was above 50 per cent in majority of the districts of the State.

Thus, the area of medium and large individual holdings as discussed in Chapter IV which were about three-fourth of the total in 1970-71 declined to less than one fifth in 1985-86. Similar trend was seen in all the districts except Thana, Kulaba and Ratnagiri. Thus, the iniquitous distribution of land among the farm size groups was observed to be declining in all the districts during period under reference.

During the period of 15 years (1970-71 to 1985-86), the area under marginal size groups was quadrupled in Aurangabad, Parbhani, Beed, and Yavatmal districts, doubled for small size group (except Beed) and the area of semi-medium holdings was also doubled. The area of large holdings declined by more than 40 per cent in all the districts except Ratnagiri and the highest being in Parbhani (80.72 per cent). The medium holdings showed mixed trend from census to census. However, in general, there was a decline during the 15 years period in Kulaba, Bhandara, Nanded and all districts of Western Maharashtra except Solapur. The diminution of large holdings was the highest in Dhule followed by Jalgaon, Parbhani and Nanded districts.

5.1.5 Changes in the Distribution of Number of Joint Operational Holdings in Different Districts:

The number of joint holdings in different size classes in different districts during the 4 census years are presented in Table 5.9. The analysis is attempted below separately for different size classes of holdings.

i. Changes in the number of joint marginal holdings:

The number of joint marginal holdings showed a mixed trend in different districts of the State. A clear increasing trend was observed in Ratnagiri, Nasik, Dhule, Ahmednagar, Parbhani, Nanded, Osmanabad, Yavatmal, Bhandara and Nagpur districts. In some districts, the number of marginal holdings increased during 1976-77 and 1980-81 as compared to their respective previous censuses but declined in 1985-86. This situation was noted in respect of Thana, Kulaba, Pune, Solapur, Satara, Sangli, Beed, Amaravati, Wardha and Bhandara. In the remaining districts, the number of holdings showed ups and downs. As regards the proportion of number of holdings, it was the highest in Kolhapur (1970-71 and 1980-81), Kulaba (1976-77) and Satara (1985-86). The highest number of holdings were observed in Bhandara for the period of 4 censuses.

The drastic increase in the number of joint marginal holdings during the period from 1970-71 to 1985-86 was observed in Thana, Ahmednagar, Sangli, Osmanabad, Amaravati and Yavatmal districts. However, a declining trend was noted in Kolhapur, Wardha and Nagpur districts.

ii. Changes in the number of joint small holdings:

The proportion of number of joint small holdings during 1970-71 ranged from 6.67 per cent (Beed) to 23.29 per cent (Jalgaon). The same for 1985-86

Table 5.9 Distribution of the number of joint operational holdings by size-classes in different districts of Maharashtra

(Numbers in thousand)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	0.30 (23.62)	0.55 (28.35)	5.97 (37.29)	4.94 (36.48)	0.16 (12.60)	0.32 (16.49)	2.87 (17.93)	2.67 (19.72)	0.26 (20.47)	0.38 (19.59)	3.19 (19.92)	2.72 (20.09)
Kulaba	2.16 (46.85)	2.40 (49.28)	9.42 (54.61)	4.82 (53.80)	0.86 (18.66)	0.91 (18.68)	3.09 (17.91)	1.70 (18.97)	0.75 (16.27)	0.78 (16.02)	2.42 (14.03)	1.18 (13.17)
Ratnagiri	1.29 (48.32)	1.23 (36.50)	2.06 (39.54)	3.16 (52.06)	0.33 (12.36)	0.48 (14.24)	0.66 (12.67)	0.99 (16.31)	0.38 (14.23)	0.52 (15.43)	0.76 (14.59)	0.75 (12.36)
WESTERN MAHARASHTRA												
Nasik	0.79 (19.13)	0.88 (22.22)	5.09 (23.51)	6.17 (22.28)	0.65 (15.74)	0.68 (17.17)	3.85 (17.78)	5.07 (18.30)	0.94 (22.76)	0.95 (23.99)	5.24 (24.20)	7.01 (25.31)
Dhule	1.11 (15.59)	1.52 (18.34)	4.04 (20.27)	5.00 (20.87)	0.99 (13.90)	1.44 (17.37)	3.61 (18.11)	6.05 (25.25)	1.69 (23.74)	2.11 (25.45)	4.97 (24.94)	6.11 (25.50)
Jalgaon	2.34 (26.20)	2.32 (26.24)	7.74 (23.81)	12.04 (27.63)	2.08 (23.29)	2.07 (23.42)	9.01 (27.71)	12.68 (29.10)	2.21 (24.75)	2.32 (26.24)	8.53 (26.24)	10.61 (24.35)
Ahmednagar	0.09 (25.52)	0.63 (25.82)	2.06 (21.24)	3.11 (33.51)	0.10 (17.24)	0.55 (22.54)	2.78 (28.66)	2.74 (29.53)	0.12 (20.69)	0.64 (26.23)	2.82 (29.07)	2.27 (24.46)
Pune	0.49 (20.42)	0.79 (17.44)	6.05 (29.00)	1.53 (36.60)	0.30 (12.50)	0.59 (13.03)	3.74 (17.93)	0.95 (22.73)	0.42 (17.50)	0.95 (20.97)	4.17 (20.00)	0.79 (18.90)
Solapur	0.98 (17.63)	1.47 (19.22)	5.99 (18.98)	3.31 (15.95)	0.75 (13.49)	1.20 (15.69)	4.55 (14.42)	4.08 (19.66)	1.17 (21.04)	1.72 (22.48)	6.64 (21.04)	-5.21 (25.10)
Satara	-	0.16 (20.25)	2.05 (39.35)	1.43 (56.75)	-	0.13 (16.46)	1.12 (24.50)	0.39 (15.48)	0.01 (33.33)	0.16 (20.25)	1.22 (23.42)	0.35 (13.89)
Sangli	0.02 (14.29)	0.90 (20.93)	1.63 (28.35)	1.28 (39.26)	0.01 (7.14)	0.87 (20.24)	1.20 (20.87)	0.83 (25.46)	0.02 (14.29)	0.99 (23.02)	1.32 (22.96)	0.55 (16.87)
Kolhapur	5.92 (55.33)	2.28 (45.33)	8.86 (56.36)	2.97 (48.93)	1.65 (15.42)	0.99 (19.68)	2.67 (16.98)	1.25 (20.59)	1.48 (13.83)	0.77 (15.31)	2.19 (13.93)	0.94 (15.49)
MARATHWADA												
Aurangabad	-	-	0.20 (14.82)	1.18 (41.99)	0.01 (12.50)	0.01 (20.00)	0.18 (13.33)	0.59 (30.00)	0.01 (12.50)	0.01 (20.00)	0.29 (21.48)	0.54 (19.22)
Parabhani	0.10 (7.94)	0.16 (13.22)	0.40 (10.72)	0.89 (17.32)	0.13 (10.32)	0.13 (10.74)	0.55 (14.75)	1.46 (28.40)	0.25 (19.84)	0.21 (17.35)	0.91 (24.40)	1.67 (32.49)
Beed	0.04 (13.33)	0.08 (10.67)	0.61 (29.19)	0.17 (12.41)	0.02 (6.67)	0.07 (9.33)	0.26 (12.44)	0.23 (16.79)	0.06 (20.00)	0.12 (16.00)	0.36 (17.22)	0.35 (25.55)
Wanded	0.11 (15.07)	0.48 (17.02)	0.55 (14.63)	0.76 (28.05)	0.10 (13.70)	0.48 (17.02)	0.50 (13.30)	0.67 (24.72)	0.18 (24.66)	0.66 (23.40)	0.93 (24.73)	0.66 (24.35)
Oswanabad	0.12 (8.89)	0.17 (14.05)	2.39 (18.69)	3.44 (26.40)	0.18 (13.33)	0.24 (19.83)	1.71 (13.37)	2.16 (16.58)	0.30 (22.22)	0.28 (23.14)	2.61 (20.41)	2.41 (18.49)
VIDARBHA												
Buldhana	1.18 (9.12)	0.62 (11.46)	1.38 (16.57)	1.87 (16.74)	2.00 (15.45)	0.89 (16.45)	2.02 (24.25)	2.21 (19.78)	2.96 (22.88)	1.10 (20.33)	2.41 (28.93)	3.00 (26.86)
Akola	1.49 (14.77)	2.03 (15.52)	1.91 (14.75)	2.39 (14.40)	1.99 (19.72)	2.69 (20.57)	2.53 (19.54)	3.12 (18.80)	2.47 (24.48)	3.23 (24.69)	3.53 (27.26)	5.05 (30.42)
Anaravati	0.19 (15.97)	0.25 (14.62)	3.67 (16.19)	3.44 (17.72)	0.24 (20.17)	0.38 (22.22)	6.07 (26.77)	5.91 (30.45)	0.32 (26.89)	0.50 (29.24)	6.90 (30.44)	5.53 (28.49)
Yavatmal	0.01 (1.92)	0.02 (3.51)	0.23 (4.84)	0.30 (5.75)	0.04 (7.69)	0.08 (14.04)	0.82 (17.27)	1.12 (21.45)	0.08 (15.39)	0.14 (24.56)	1.37 (28.84)	1.52 (29.12)
Wardha	0.47 (5.57)	0.61 (6.15)	1.30 (10.97)	0.25 (16.02)	1.04 (12.34)	1.42 (14.33)	2.66 (22.45)	0.38 (24.36)	2.11 (25.03)	2.70 (27.25)	3.64 (30.72)	0.45 (28.85)
Nagpur	1.89 (8.69)	1.56 (12.75)	1.67 (16.97)	1.26 (20.73)	2.89 (13.29)	2.47 (20.20)	2.43 (24.70)	1.72 (28.29)	5.30 (24.37)	3.27 (26.74)	2.84 (28.86)	1.66 (27.30)
Bhandara	5.93 (36.83)	9.34 (46.08)	26.54 (47.54)	16.30 (50.40)	3.50 (21.74)	4.63 (22.84)	13.04 (23.36)	7.84 (24.24)	3.51 (21.80)	3.89 (19.19)	9.98 (17.87)	5.60 (17.32)
Chandrapur	1.80 (14.25)	0.99 (12.33)	8.88 (28.01)	3.53 (23.87)	1.99 (15.76)	1.23 (15.32)	6.74 (21.26)	3.39 (22.92)	3.35 (26.52)	2.03 (25.28)	7.54 (23.79)	3.74 (25.29)

Table 5.9 (Continued...)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	0.32 (25.20)	0.46 (23.71)	2.97 (18.55)	2.49 (18.39)	0.23 (18.11)	0.23 (11.86)	1.01 (6.31)	0.72 (5.32)	1.27 (100.00)	1.94 (100.00)	16.01 (100.00)	13.54 (100.00)
Kulaba	0.57 (12.36)	0.54 (11.09)	1.84 (10.67)	0.89 (9.93)	0.27 (5.86)	0.24 (4.93)	0.48 (2.78)	0.37 (4.13)	4.61 (100.00)	4.87 (100.00)	17.25 (100.00)	8.96 (100.00)
Ratnagiri	0.40 (14.98)	0.65 (19.29)	0.93 (17.85)	0.70 (11.53)	0.27 (10.11)	0.49 (14.54)	0.80 (15.35)	0.47 (7.74)	2.67 (100.00)	3.37 (100.00)	5.21 (100.00)	6.07 (100.00)
WESTERN MAHARASHTRA												
Nasik	1.13 (27.36)	1.02 (25.76)	5.58 (25.78)	7.41 (26.75)	0.62 (15.01)	0.43 (10.86)	1.89 (8.73)	2.04 (7.36)	4.13 (100.00)	3.96 (100.00)	21.65 (100.00)	27.70 (100.00)
Dhule	2.56 (35.96)	2.61 (31.48)	6.21 (31.16)	5.96 (24.87)	0.77 (10.81)	0.61 (7.36)	1.10 (5.12)	0.84 (3.51)	7.12 (100.00)	8.29 (100.00)	19.93 (100.00)	23.96 (100.00)
Jalgaon	1.76 (19.71)	1.76 (19.91)	6.21 (19.10)	7.13 (16.37)	0.54 (4.05)	0.37 (4.19)	1.02 (3.14)	1.11 (5.55)	8.93 (100.00)	8.84 (100.00)	32.51 (100.00)	43.57 (100.00)
Ahmednagar	0.15 (25.86)	0.41 (17.21)	1.62 (16.70)	1.03 (11.10)	0.12 (20.69)	0.20 (8.20)	0.42 (4.33)	0.13 (1.40)	0.58 (100.00)	2.44 (100.00)	9.70 (100.00)	9.28 (100.00)
Pune	0.67 (27.92)	1.37 (30.24)	4.72 (22.62)	0.67 (16.03)	0.52 (21.66)	0.83 (18.32)	2.18 (10.45)	0.24 (5.74)	2.40 (100.00)	4.53 (100.00)	20.86 (100.00)	4.18 (100.00)
Solapur	1.60 (28.78)	2.09 (27.32)	9.44 (29.91)	5.59 (26.93)	1.06 (19.06)	1.17 (15.29)	4.94 (15.65)	2.56 (12.33)	5.56 (100.00)	7.65 (100.00)	31.56 (100.00)	20.75 (100.00)
Satara	0.01 (33.33)	0.21 (26.58)	0.72 (13.82)	0.27 (10.71)	0.01 (33.34)	0.13 (16.46)	0.10 (1.91)	0.08 (3.17)	0.03 (100.00)	0.79 (100.00)	5.21 (100.00)	2.52 (100.00)
Sangli	0.05 (35.71)	1.07 (24.88)	1.19 (20.69)	0.43 (13.19)	0.04 (28.57)	0.47 (10.93)	0.41 (7.13)	0.47 (5.22)	0.14 (100.00)	4.30 (100.00)	5.75 (100.00)	3.26 (100.00)
Kolhapur	1.22 (11.40)	0.69 (13.72)	1.54 (9.80)	0.72 (11.87)	0.43 (4.02)	0.30 (5.96)	0.46 (2.93)	0.19 (3.13)	10.70 (100.00)	5.03 (100.00)	15.72 (100.00)	6.07 (100.00)
MARATHWADA												
Aurangabad	0.03 (37.50)	0.02 (40.00)	0.43 (31.85)	0.43 (15.30)	0.03 (37.50)	0.01 (20.00)	0.25 (18.52)	0.07 (2.49)	0.08 (100.00)	0.05 (100.00)	1.35 (100.00)	2.81 (100.00)
Parabhani	0.47 (37.30)	0.39 (32.23)	1.36 (36.46)	0.90 (17.51)	0.31 (24.60)	0.29 (23.96)	0.51 (13.67)	0.22 (4.28)	1.26 (100.00)	1.21 (100.00)	3.73 (100.00)	5.14 (100.00)
Beed	0.08 (26.67)	0.26 (34.67)	0.52 (24.88)	0.33 (24.09)	0.10 (33.33)	0.22 (29.33)	0.34 (16.27)	0.29 (21.16)	0.30 (100.00)	0.75 (100.00)	2.09 (100.00)	1.37 (100.00)
Nanded	0.25 (34.25)	0.88 (21.21)	1.50 (39.89)	0.57 (18.82)	0.09 (12.32)	0.32 (11.35)	0.28 (7.45)	0.11 (4.06)	0.73 (100.00)	2.82 (100.00)	3.76 (100.00)	2.71 (100.00)
Osmanabad	0.43 (31.85)	0.35 (28.93)	4.04 (31.59)	3.26 (25.02)	0.32 (23.71)	0.17 (14.05)	2.04 (15.94)	1.76 (13.51)	1.35 (100.00)	1.21 (100.00)	12.79 (100.00)	13.03 (100.00)
VIDARBHA												
Buldhana	3.87 (29.91)	2.25 (41.59)	2.02 (24.25)	2.98 (26.68)	2.93 (22.64)	0.55 (10.17)	0.50 (6.00)	1.11 (9.94)	12.94 (100.00)	5.41 (100.00)	8.33 (100.00)	11.17 (100.00)
Akola	2.71 (26.86)	3.70 (28.29)	3.83 (29.57)	4.71 (28.37)	1.43 (14.17)	1.43 (10.93)	1.15 (8.88)	1.33 (8.01)	10.09 (100.00)	13.08 (100.00)	12.95 (100.00)	16.60 (100.00)
Amaravati	0.31 (26.05)	0.45 (26.32)	4.89 (21.57)	3.70 (19.06)	0.13 (10.92)	0.13 (7.60)	1.14 (5.03)	0.83 (4.28)	1.19 (100.00)	1.71 (100.00)	22.67 (100.00)	19.41 (100.00)
Yavatmal	0.17 (32.69)	0.21 (36.84)	1.71 (36.00)	1.89 (36.21)	0.22 (42.31)	0.12 (21.05)	0.62 (13.05)	0.39 (7.47)	0.52 (100.00)	0.57 (100.00)	4.75 (100.00)	5.22 (100.00)
Wardha	3.08 (36.54)	3.84 (38.75)	3.45 (29.11)	0.39 (25.00)	1.73 (20.52)	1.34 (13.52)	0.80 (6.75)	0.09 (5.77)	8.43 (100.00)	9.91 (100.00)	11.85 (100.00)	1.56 (100.00)
Nagpur	7.75 (35.63)	3.31 (27.06)	2.40 (24.39)	1.21 (19.90)	3.92 (18.02)	1.62 (13.25)	0.50 (5.08)	0.23 (3.78)	21.75 (100.00)	12.23 (100.00)	9.84 (100.00)	6.08 (100.00)
Bhandara	2.53 (15.71)	2.08 (10.26)	5.41 (9.69)	2.30 (7.11)	0.63 (3.92)	0.33 (1.63)	0.86 (1.54)	0.30 (0.93)	16.10 (100.00)	20.27 (100.00)	55.83 (100.00)	32.34 (100.00)
Chandrapur	4.04 (31.99)	2.81 (34.99)	7.01 (22.11)	3.43 (23.19)	1.45 (11.48)	0.97 (12.08)	1.53 (4.83)	0.70 (4.73)	12.63 (100.00)	8.03 (100.00)	31.70 (100.00)	14.79 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the district.

ranged from 15.48 per cent (Satara) to 30.45 per cent (Amaravati). Thus, proportionate share of small holdings, in general, was found to be increasing. The districts indicating increasing trend during 1970-71 to 1985-86 included Ratnagiri, Nasik, Dhule, Jalgaon, Ahmednagar, Sangli, Aurangabad, Parbhani, Beed, Nanded, Osmanabad, Amaravati and Yavatmal districts. The number of holdings declined in Kolhapur, Wardha and Nagpur. The highest number of holdings were observed in Bhandara in 1970-71, 1976-77 and 1980-81 and Jalgaon in 1985-86.

iii. Changes in the number of joint semi-medium holdings:

The proportion of the number of semi-medium holdings ranged from 12.50 per cent (Aurangabad) to 33.33 per cent (Satara) in 1970-71. The number of holdings was the highest in Nagpur (5300) and the lowest in Satara, Aurangabad (10) during the same period. The number of holdings largely increased in Sangli, Satara and Ahmednagar districts in 1976-77 as compared to that in 1970-71. A drastic increase occurred in the number of holdings during the period from 1976-77 to 1980-81 in Thana, Kulaba, Nasik, Jalgaon, Ahmednagar, Pune, Solapur, Satara, Aurangabad, Parbhani, Beed, Osmanabad, Amaravati, Yavatmal and Chandrapur districts. Considering the period from 1980-81 to 1985-86, the number of joint holdings declined substantially in Thana, Kulaba, Ratnagiri, (all from Konkan) Ahmednagar, Pune, Solapur, Satara, Sangli and Kolhapur (W. Maharashtra), Nanded, Osmanabad (Marathwada) Amaravati, Wardha, Nagpur, Bhandara and Chandrapur (Vidarbha). Considering the period of 15 years (1970-71 to 1985-86), the drastic increase in the number of semi-medium joint holdings was observed in Thana, Nasik, Ahmednagar, Satara, Sangli, Aurangabad, Parbhani, Osmanabad, Amaravati and Yavatmal.

iv. Changes in the number of joint medium holdings:

The number of joint medium holdings indicated a mixed trend during the period of 4 censuses. The number of holdings were less than one thousand in all districts of Marathwada and Konkan region of the state. The highest number of holdings were reported in Nagpur (7750) and the lowest in Satara (10). In 1976-77, the number of holdings declined as compared to that in 1970-71 in Kulaba, Nasik, Kolhapur, Aurangabad, Parbhani, Osmanabad, Buldhana, Nagpur, Bhandara and Chandrapur. However, there was an increase in Satara district. The proportion of number of medium holdings in 1976-77 ranged from 10.26 per cent (Bhandara) to 41.59 per cent (Buldhana). In 1980-81, the number of medium joint holdings increased as compared to that in 1976-77 in all the districts of the State except Buldhana, Wardha and Nagpur (all from Vidarbha). However, in 1985-86 the number of holdings declined in all the districts with the exception of Nasik, Jalgaon, Buldhana, Akola and Yavatmal. Considering the total period of 15 years (1970-71 to 1985-86), a substantial increase in the number of holdings was seen in Thana, Nasik, Jalgaon, Ahmednagar, Satara, Sangli, Aurangabad, Beed, Osmanabad, Amaravati and Yavatmal, while the number of holdings declined in Buldhana, Wardha, Nagpur, Bhandara, Chandrapur (all from Vidarbha) and Kolhapur districts.

v. Changes in the number of joint large holdings:

The proportion of number of large joint holdings in 1970-71 ranged from 3.92 per cent (Bhandara) to 42.31 per cent (Yavatmal). In the districts of Konkan, W. Maharashtra and Marathwada, the number of holdings were below one thousand except Solapur (1060). The largest number of holdings were observed in Nagpur (3920). In 1976-77 a declining trend over 1970-71 was seen in

Buldhana, Yavatmal, Wardha, Nagpur, Bhandara, Chandrapur (all from Vidarbha), Nasik, Dhule, Jalgaon, Kolhapur (Western Maharashtra), Aurangabad, Parbhani and Osmanabad (Marathwada). The contrasting trend was observed in 1980-81. The number of holdings increased as compared to previous census in all the districts except Satara, Sangli, Nanded, Buldhana, Akola, Wardha and Nagpur. Again, in 1985-86, majority of the districts showed declining trend. Considering the period of 15 years (1970-71 to 1985-86), a substantial increase in the number of holdings was observed in Nasik, Jalgaon, Solapur, Satara, Sangli, Aurangabad, Beed, Osmanabad and Amaravati. However, there was a decline in Buldhana, Akola, Wardha, Nagpur, Bhandara, Chandrapur (all from Vidarbha), Kolhapur, Pune and Parbhani districts. A clear declining trend during the 4 census periods was observed in Wardha and Nagpur (Vidarbha).

The changes in the number of joint holdings for size classes in districts of Maharashtra from one census to another and during the entire period of 4 censuses in terms of percentages increase or decrease were calculated and the same is presented in Table 5.10

i. Percentage changes in the number of joint marginal holdings:

During the period from 1970-71 to 1976-77, the number of joint marginal holdings increased by 4400 per cent in Sangli, 600 per cent in Ahmednagar, 336 per cent in Nanded, 100 per cent in Beed and Yavatmal districts. The number of joint marginal holdings indicated decline in Ratnagiri, Jalgaon, Kolhapur, Buldhana, Nagpur and Chandrapur districts. In the remaining districts, the increase was below 100 per cent. During the period from 1976-77 to 1980-81, the marginal holdings increased in all the districts except Akola (-5.92 per cent). During the period from 1980-81 to 1985-86 a substantial increase was observed in Aurangabad (490 per cent). The number of joint marginal holdings declined

Table 5.10 Percentage changes in the number of joint operational holdings by size-classes for different census periods in different districts of Maharashtra.

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	83.33	985.45	-17.26	1546.66	100.00	796.67	-6.97	1568.75	46.15	739.47	-14.73	946.15
Kulaba	11.11	292.50	-48.84	123.14	5.81	239.56	-44.99	97.67	4.00	210.25	-51.23	57.33
Ratnagiri	-4.66	67.47	53.39	144.96	45.45	37.50	50.00	200.00	36.84	46.15	-1.31	97.36
WESTERN MAHARASHTRA												
Nasik	11.39	478.40	21.22	681.01	4.61	466.17	31.68	680.00	1.06	451.57	33.77	645.74
Dhule	36.93	165.78	23.76	350.45	45.45	150.69	67.59	511.11	24.85	135.54	22.93	261.53
Jalgaon	-0.86	233.62	55.55	414.52	-0.49	335.26	40.73	509.61	4.97	267.67	24.38	380.09
Ahmednagar	600.00	226.98	50.97	3355.55	450.00	405.45	-1.44	2640.00	433.33	340.62	-19.50	1791.66
Pune	61.22	665.82	-74.72	212.24	96.66	533.89	-74.60	216.66	126.19	338.94	-81.05	88.09
Solapur	50.00	307.48	44.73	237.75	60.00	279.16	10.33	444.00	47.00	286.04	21.53	345.29
Satara	-	1181.25	-30.25	-	-	761.53	-65.18	-	1500.00	662.50	-71.31	3400.00
Sangli	4400.00	81.11	-21.48	6300.00	8600.00	37.93	-30.84	8200.00	4850.00	33.33	-58.34	2650.00
Kolhapur	-61.49	288.59	-66.48	-49.84	-40.00	169.69	-53.19	-24.25	-47.98	184.41	-57.08	-36.49
MARATHWADA												
Aurangabad	-	-	490.00	-	-	1700.00	227.77	5800.00	-	2800.00	86.20	5300.00
Parabhani	60.00	150.00	122.50	790.00	-	323.07	165.45	1023.07	-16.00	333.33	83.51	568.00
Beed	100.00	662.50	-72.15	325.00	250.00	271.42	-11.54	1050.00	100.00	200.00	-2.78	483.33
Wanded	336.36	14.58	38.18	590.90	380.00	4.16	34.00	570.00	266.66	40.90	-29.04	266.66
Osmanabad	41.66	1305.88	43.99	2766.66	33.33	612.50	26.31	1100.00	-6.67	832.14	-7.67	703.33
VIDARBHA												
Buldhana	-47.46	122.58	35.50	58.47	-55.50	126.96	9.40	10.50	-62.84	119.09	24.48	1.35
Akola	36.24	-5.92	25.13	60.40	35.17	-5.94	23.32	56.78	30.76	9.28	43.05	104.45
Amaravati	31.57	1368.00	-6.27	1710.52	58.33	1497.36	-2.63	2362.50	56.25	1280.00	-19.86	1628.12
Yavatmal	100.00	1050.00	30.43	2900.00	100.00	925.00	36.58	2700.00	75.00	878.57	10.94	1800.00
Wardha	29.78	113.11	-80.77	-46.81	36.53	87.32	-85.71	-63.46	27.96	34.81	-87.64	-78.68
Nagpur	-17.47	7.05	-24.56	-33.34	-14.53	-1.61	-29.21	-40.48	-38.31	-13.15	-41.55	-68.68
Bhandara	57.50	184.15	-38.59	174.87	32.28	181.64	-39.87	124.00	10.82	156.55	-43.89	59.54
Chandrapur	-45.00	796.96	-60.25	96.11	-38.19	447.96	-49.700	70.35	-39.41	271.42	-50.40	11.64

Table 5.10 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	43.75	545.65	-16.17	678.12	-	339.13	-28.72	213.04	52.75	725.25	-15.43	966.14
Kulaba	-5.27	240.74	-51.64	56.14	11.12	100.00	-22.92	37.03	5.63	254.20	-48.06	94.36
Ratnagiri	62.50	43.07	-24.74	75.00	81.48	63.26	-41.25	74.07	26.21	54.59	16.50	127.34
WESTERN MAHARASHTRA												
Nasik	-9.74	447.05	32.79	555.75	-30.65	339.53	7.93	229.03	-4.12	446.71	27.94	570.70
Dhule	1.95	137.93	-4.03	132.91	-20.78	80.32	-23.64	9.09	16.43	140.41	20.22	236.51
Jalgaon	-	252.84	14.81	305.11	-31.49	175.67	8.82	105.55	-1.01	267.76	34.02	387.90
Ahmednagar	173.33	295.12	-36.42	586.66	66.66	110.00	-69.05	8.33	320.68	297.54	-4.33	1500.00
Pune	104.47	244.52	-85.81	-	59.51	162.65	-89.00	-53.85	88.75	360.48	-79.97	74.16
Solapur	30.62	351.67	-40.78	249.37	10.37	322.22	48.17	141.50	37.58	312.54	34.25	273.20
Satara	2000.00	242.85	-62.50	2600.00	1200.00	-23.08	-20.00	700.00	2533.33	559.49	-51.64	8300.00
Sangli	2040.00	11.21	-63.87	760.00	1075.00	-12.77	-58.54	325.00	2971.42	33.72	-43.31	2228.57
Kolhapur	-43.45	123.18	-53.25	-40.99	-30.24	53.33	-58.70	-55.82	-53.00	212.52	-61.39	-43.28
MARATHWADA												
Aurangabad	33.34	2050.00	-	1333.33	-66.67	2400.00	-72.00	133.33	-37.50	2600.00	108.14	3412.50
Parabhani	-17.03	189.36	-33.83	91.48	-6.46	75.86	-56.87	-29.04	-3.97	208.26	37.80	307.93
Beed	225.00	100.00	-36.34	312.50	120.00	54.54	-14.71	190.00	150.00	178.66	-34.45	356.66
Wanded	252.00	70.45	-66.00	104.00	255.55	-12.50	-60.72	22.22	286.30	33.33	-27.93	271.23
Osmanabad	-18.61	1054.28	-19.31	35.26	-46.88	1100.00	-13.73	450.00	-10.38	957.02	1.67	865.18
VIDARBHA												
Buldhana	-41.87	-10.23	47.52	-23.00	-81.23	-9.10	122.00	-62.12	-58.20	-53.97	34.03	-13.68
Akola	36.53	3.51	22.97	73.80	-	-19.59	15.65	-7.00	29.63	1.00	28.18	64.51
Amaravati	45.16	986.66	-24.34	1093.54	-	776.52	-27.20	538.46	43.69	1225.73	-14.39	1532.09
Yavatmal	23.52	714.28	10.52	1011.76	-45.46	416.66	-37.10	77.27	9.61	733.33	9.89	903.84
Wardha	24.67	-10.16	-88.70	-13.34	-22.55	-40.30	-88.75	-94.80	17.55	19.57	-86.84	-81.50
Nagpur	-57.30	-27.50	-49.59	-84.39	-58.68	-69.14	-54.00	-94.14	-43.78	-19.55	-38.22	-72.05
Bhandara	-17.79	160.09	-57.49	-9.10	-47.62	160.60	-65.12	-52.39	25.90	175.43	-42.08	100.86
Chandrapur	-30.45	149.46	-65.34	-15.10	-33.11	57.73	-54.25	-51.73	-36.43	294.76	53.35	17.10

above 70 per cent in Wardha, Pune and Beed. The negative figures were observed in Thana, Kulaba, Satara, Sangli, Kolhapur, Amaravati, Nagpur, Bhandara and Chandrapur. Considering the period of 15 years (1970-71 to 1985-86), the number of marginal holdings increased above 1000 per cent in Thana, Ahmednagar, Sangli, Osmanabad, Amaravati and Yavatmal, while there was a declining percentage in Kolhapur, Wardha and Nagpur districts.

ii. Percentage change in the number of joint small holdings:

During the period from 1970-71 to 1976-77, the number of joint small holdings declined in Jalgaon, Kolhapur, Buldhana, Nagpur and Chandrapur, while the number was static in Aurangabad, Parbhani and not reported in Satara. The drastic increase was observed in Sangli district (8600 per cent).

During the period from 1976-77 to 1980-81, the number of small joint holdings increased in all the districts except Akola and Nagpur. The largest increase was seen in Aurangabad (1700 per cent) and was followed by Amaravati district (1497.36 per cent).

During the period from 1980-81 to 1985-86, the number of holdings declined in Ahmednagar, Pune, Satara, Sangli, Kolhapur (all from Western Maharashtra), Amaravati, Wardha, Nagpur, Bhandara, Chandrapur (Vidarbha), Beed, Thana and Kulaba. The highest increase was observed in Aurangabad (227.77 per cent).

Considering the period of 15 years, (1970-71 to 1985-86), the largest increase in the number of joint small holdings observed in Sangli (8200 per cent) followed by Aurangabad (5800 per cent) and Yavatmal (2700 per cent). The decline in the number of joint small holdings was noted in Kolhapur, Wardha and Nagpur districts.

iii. Percentage change in the number of joint semi-medium holdings:

During the period from 1970-71 to 1976-77, the percentage of number of joint semi-medium holdings declined in Buldhana, Nagpur, Chandrapur (all from Vidarbha), Osmanabad, Parbhani (Marathwada) and Kolhapur (W. Maharashtra). In the remaining districts, there was increasing trend. The largest increase was seen in Sangli (4850 per cent) followed by Satara (1500 per cent).

During the period from 1976-77 to 1980-81, the percentage of number of joint semi-medium holdings increased in all the districts with the exception of Nagpur. The highest increase was observed in Aurangabad (2800 per cent) and the lowest in Akola (9.28 per cent).

During the period from 1980-81 to 1985-86, the number of joint semi-medium holdings showed percentage decline in Thana, Kulaba, Ratnagiri, Ahmednagar, Pune, Satara, Sangli, Kolhapur, Beed, Nanded, Osmanabad, Amaravati, Wardha, Nagpur, Bhandara and Chandrapur districts. In the remaining districts there was increasing trend.

Considering the total period of 15 years (1970-71 to 1985-86), the declining trend in the percentage number of joint semi-medium holdings was noted in Kolhapur, Wardha and Nagpur districts. In the remaining districts there was an increasing trend ranging from 1.35 per cent (Buldhana) to 5300 per cent (Aurangabad). A significant increase in the percentage number of holdings was in the districts of Marathwada. It was followed by Konkan, Western Maharashtra (except Kolhapur) and Vidarbha region except (Wardha and Nagpur districts).

iv. Percentage change in the number of joint medium holdings:

During the period from 1970-71 to 1976-77, the trend in the number of joint medium holdings was of mixed nature. The drastic increase in the number of joint medium holdings was observed in Satara (2000 per cent) and Sangli (2040 per cent), while there was decline in Nagpur (-57.30 per cent).

During the period from 1976-77 to 1980-81, all the districts except Buldhana, Wardha and Nagpur indicated increasing trend. The largest increase was observed in Aurangabad (2050 per cent) followed by Osmanabad (1054.28 per cent). During the period from 1980-81 to 1985-86, all the districts except Nasik, Jalgaon, Buldhana, Akola and Yavatmal indicated negative figures. The highest decline in the percentage number of joint medium holdings was in Wardha (-88.70 per cent) and the lowest in Dhule (-4.03 per cent).

Considering the total period of 15 years, (1970-71 to 1985-86), a drastic increase in number of joint medium holdings was observed in Thana, Nasik, Ahmednagar, Pune, Satara, Sangli, Aurangabad, Beed, Amaravati and Yavatmal districts (all above 300 per cent). However, a decline was noted in Kolhapur, Buldhana, Wardha, Nagpur, Bhandara and Chandrapur districts.

v. Percentage change in the number of joint large holdings:

During the period from 1970-71 to 1976-77, a negative trend in the number of joint large holdings was noted in Buldhana, Yavatmal, Wardha, Nagpur, Bhandara, Chandrapur (Vidarbha region), Osmanabad, Aurangabad, Parbhani (Marathwada), Kolhapur, Dhule, Jalgaon and Nasik districts (W. Maharashtra). A drastic increase was observed in Satara and Sangli districts. In the remaining districts a moderate increase was observed.

During the period from 1976-77 to 1980-81, a negative trend was observed in Satara, Sangli, Nanded, Buldhana, Akola, Wardha and Nagpur districts. The highest increase in the percentage number of joint large holdings was observed in Aurangabad (2400 per cent). It was followed by Osmanabad (1100 per cent), Amaravati (776.52 per cent) and Yavatmal (416.66 per cent) districts.

During the period from 1980-81 to 1985-86, a declining trend was observed in all the districts except Nasik, Jalgaon, Solapur, Buldhana and Akola. The decline ranged from -13.73 per cent (Osmanabad) to -89.00 per cent (Pune).

During the total period of 15 years, (1970-71 to 1985-86), the highest increase was seen in Satara (700 per cent) followed by Amaravati (538.16 per cent), Osmanabad (450 per cent) and Sangli (325 per cent). The drastic decline was observed in Wardha, Nagpur and moderate decline in Kolhapur, Parbhani, Buldhana, Bhandara and Chandrapur districts.

Thus, the number of 'joint' operational holdings of marginal, small and semi-medium size groups showed increasing trend during 1970-71 to 1985-86 in all the districts except Kolhapur, Wardha and Nagpur districts. The medium and large sized holdings showed declining trend in majority of the districts during 1980-81 to 1985-86. The proportion of number of joint operational holdings below 4 hectares increased from about 40 per cent to 70 per cent and above 4 hectares whereas declined from about 60 per cent to 30 per cent during 1970-71 to 1985-86.

The number of joint operational holdings showed drastic increase (above 1000 per cent) during the period from 1970-71 to 1985-86 in Thana, Ahmednagar, Sangli, Osmanabad, Amaravati, Yavatmal districts for marginal holdings and in Aurangabad, Parbhani, Beed districts for small holdings and in Satara, Aurangabad for semi-medium size group. In general, the number of joint operational holdings declined only in Wardha, Nagpur, Buldhana and Kolhapur.

However, the drastic increase at overall level (above 1000 per cent) was observed in Ahmednagar, Satara, Sangli, Aurangabad and Amaravati districts.

**5.1.6 Changes in the Distribution of
Area of Joint Operational
Holdings in Different Districts:**

The districtwise area of joint holdings in Maharashtra by size classes for 4 census periods is presented in Table 5.11. The same is discussed below by size-classes.

**i. Changes in the area of
joint marginal holdings:**

The area of marginal joint holdings showed increasing trend during the period of 4 censuses in majority of the districts.

In 1970-71, the highest area was observed in Bhandara (2690 ha) and the lowest (10 ha) in Sangli, whereas there was no area under this category in Satara, Aurangabad and Yavatmal districts. The area showed an increase in 1976-77 for most of the districts except Jalgaon, Kolhapur, Buldhana, Amaravati, Nagpur and Chandrapur. In 1980-81, the area increased by more than 10 times in Thana, Satara, Amaravati and Yavatmal as compared to 1976-77 and declined only in Akola. In the remaining districts, the area increased more than twice except in Ratnagiri, Nanded and Nagpur. In Aurangabad, 100 ha area was reported for the first time in 1980-81. In 1985-86, the change was to a lesser extent. During the period of 4 censuses under consideration (1970-71 to 1985-86) the highest increase in the area of marginal joint holdings was in Sangli, followed by Ahmednagar, Thana, Osmanabad, Amaravati and the increase ranged from 10 to 50 times or more.

Table 5.11 Distribution of the area of joint operational holdings by size-classes in different districts of Maharashtra

(Area in thousand hectares)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	0.12 (1.59)	0.23 (2.64)	2.69 (5.29)	2.17 (5.26)	0.23 (3.04)	0.47 (5.38)	4.18 (8.23)	3.72 (9.02)	0.73 (9.64)	1.10 (12.60)	8.60 (16.93)	7.74 (18.77)
Kulaba	0.84 (6.15)	0.95 (7.43)	4.33 (11.12)	2.07 (10.02)	1.21 (8.86)	1.27 (9.93)	4.50 (11.56)	2.43 (11.76)	2.09 (15.31)	2.15 (16.81)	6.68 (17.15)	3.36 (16.26)
Ratnagiri	0.41 (2.70)	0.43 (1.13)	0.70 (2.19)	0.99 (5.37)	0.48 (3.16)	0.68 (1.78)	0.95 (2.98)	1.45 (7.88)	1.08 (7.11)	1.48 (3.88)	2.22 (6.95)	2.12 (11.51)
WESTERN MAHARASHTRA												
Nasik	0.36 (1.46)	0.40 (2.10)	2.31 (3.44)	2.98 (2.79)	0.93 (3.87)	0.99 (5.19)	5.43 (8.12)	7.59 (7.10)	2.73 (11.37)	2.74 (14.37)	14.96 (22.29)	20.30 (18.98)
Dhule	0.48 (1.33)	0.71 (2.06)	1.88 (2.47)	2.83 (3.71)	1.42 (3.94)	2.13 (6.19)	5.09 (6.69)	8.69 (11.38)	4.96 (13.77)	6.13 (17.80)	14.82 (19.49)	17.61 (23.06)
Jalgaon	1.14 (3.84)	1.13 (4.27)	3.93 (4.25)	6.41 (5.65)	2.99 (10.08)	2.99 (11.30)	12.36 (13.36)	19.27 (16.98)	6.18 (20.84)	6.52 (24.63)	24.37 (26.33)	30.57 (26.93)
Ahmednagar	0.04 (0.40)	0.31 (3.46)	1.28 (4.20)	2.02 (9.29)	0.15 (1.50)	0.82 (9.15)	4.25 (13.92)	4.90 (22.54)	0.35 (3.51)	1.73 (19.31)	8.52 (27.93)	6.81 (31.32)
Pune	0.22 (1.28)	0.40 (1.38)	3.23 (3.68)	0.69 (5.48)	0.43 (2.51)	0.87 (2.99)	5.60 (6.39)	1.36 (10.79)	1.22 (7.12)	2.74 (9.43)	12.08 (13.78)	2.27 (18.02)
Solapur	0.35 (0.94)	0.58 (1.40)	2.39 (1.42)	1.72 (1.74)	1.07 (2.86)	1.72 (4.15)	6.42 (3.81)	6.09 (6.16)	3.43 (9.17)	5.06 (12.21)	19.10 (11.33)	15.02 (15.19)
Satara	-	0.08 (1.65)	0.97 (7.72)	0.32 (4.73)	-	0.20 (4.13)	1.72 (13.68)	0.57 (8.43)	0.02 (0.58)	0.48 (9.92)	3.37 (26.81)	0.94 (13.91)
Sangli	0.01 (0.81)	0.29 (1.43)	0.83 (3.96)	0.58 (6.80)	0.02 (1.63)	1.26 (6.20)	1.73 (8.25)	1.16 (13.60)	0.10 (8.13)	2.86 (14.07)	3.81 (18.18)	1.60 (18.76)
Kolhapur	2.02 (8.23)	0.95 (5.99)	3.44 (11.11)	1.17 (7.47)	2.29 (9.33)	1.46 (9.21)	3.84 (12.40)	1.82 (11.61)	4.15 (16.90)	2.22 (14.00)	8.22 (26.54)	2.71 (17.29)
MARATHWADA												
Aurangabad	-	-	0.10 (1.30)	0.52 (7.91)	0.01 (1.12)	0.01 (2.94)	0.26 (3.38)	0.86 (13.09)	0.04 (4.50)	0.02 (5.88)	0.85 (11.04)	1.51 (22.98)
Parabhani	0.05 (0.52)	0.07 (0.89)	0.22 (1.10)	0.52 (3.25)	0.18 (1.88)	0.20 (2.55)	0.84 (4.22)	2.12 (13.24)	0.73 (7.62)	0.69 (8.80)	2.64 (13.27)	4.70 (29.36)
Beed	0.02 (0.65)	0.04 (0.68)	0.17 (1.55)	0.08 (0.89)	0.04 (1.31)	0.11 (1.87)	0.39 (3.56)	0.36 (3.99)	0.18 (5.88)	0.35 (5.94)	1.07 (9.75)	0.99 (10.96)
Nanded	0.06 (1.61)	0.28 (2.01)	0.38 (2.22)	0.44 (5.44)	0.14 (3.75)	0.70 (5.42)	0.76 (4.45)	0.96 (11.88)	0.51 (13.67)	1.90 (14.72)	2.68 (15.68)	1.91 (23.64)
Osmanabad	0.07 (0.65)	0.09 (1.39)	0.82 (1.19)	1.22 (2.02)	0.26 (2.43)	0.36 (5.55)	2.45 (3.54)	3.58 (5.94)	0.87 (8.15)	0.80 (12.32)	7.58 (10.97)	7.16 (11.88)
VIDARBHA												
Buldhana	0.71 (0.75)	0.35 (1.65)	0.75 (2.48)	1.00 (2.09)	2.93 (3.12)	1.30 (6.14)	2.98 (9.8)	2.20 (6.68)	8.46 (9.00)	3.20 (15.11)	6.77 (22.42)	8.52 (17.79)
Akola	0.82 (1.45)	1.23 (2.06)	1.13 (2.03)	1.53 (2.20)	2.89 (5.10)	4.11 (6.88)	3.70 (6.63)	4.68 (6.72)	7.05 (12.45)	9.26 (15.49)	10.25 (18.37)	14.46 (20.76)
Amaravati	0.20 (3.33)	0.17 (2.46)	2.54 (3.33)	2.24 (3.66)	0.36 (6.00)	0.57 (8.24)	8.23 (10.79)	8.69 (14.20)	0.92 (15.33)	1.42 (20.52)	19.65 (25.77)	15.61 (25.52)
Yavatmal	-	0.01 (0.25)	0.15 (0.60)	0.20 (0.83)	0.05 (0.75)	0.13 (3.29)	1.29 (5.13)	1.79 (7.46)	0.25 (3.78)	0.41 (10.38)	3.91 (15.55)	4.49 (18.72)
Wardha	0.29 (0.50)	0.39 (0.72)	0.79 (1.66)	0.17 (3.03)	1.53 (2.62)	2.12 (3.88)	3.85 (8.08)	0.57 (10.18)	6.13 (10.48)	7.86 (14.40)	10.45 (21.93)	1.26 (22.50)
Nagpur	1.07 (0.76)	0.77 (1.36)	1.00 (2.89)	0.82 (4.25)	4.26 (3.02)	3.71 (6.55)	3.52 (10.18)	2.65 (13.75)	15.47 (10.98)	9.31 (16.44)	8.09 (23.39)	4.70 (24.39)
Bhandara	2.69 (6.32)	3.78 (9.88)	11.66 (11.47)	7.28 (13.93)	5.04 (11.84)	6.67 (17.44)	18.20 (17.91)	11.21 (21.46)	9.88 (23.21)	10.91 (28.53)	27.81 (27.36)	15.76 (30.17)
Chandrapur	0.92 (1.49)	0.54 (1.33)	4.41 (4.36)	1.92 (3.98)	2.94 (4.75)	1.83 (4.50)	9.81 (9.69)	4.95 (10.27)	9.68 (15.66)	5.89 (14.49)	21.72 (21.46)	10.61 (22.01)

Table 5.11 (Continued....)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	2.00 (26.42)	2.84 (32.53)	18.22 (35.86)	15.62 (37.89)	4.49 (59.31)	4.09 (46.85)	17.12 (36.69)	11.98 (29.06)	7.57 (100.00)	8.73 (100.00)	50.81 (100.00)	41.23 (100.00)
Kulaba	3.51 (25.72)	3.24 (25.33)	11.23 (28.84)	5.61 (27.16)	6.00 (43.96)	5.18 (40.50)	11.20 (31.33)	7.19 (34.80)	13.65 (100.00)	12.79 (100.00)	38.94 (100.00)	20.66 (100.00)
Ratnagiri	2.53 (16.67)	4.16 (10.90)	6.01 (18.83)	4.58 (24.86)	10.68 (70.36)	31.41 (82.31)	22.04 (69.05)	9.28 (50.38)	15.18 (100.00)	38.16 (100.00)	31.92 (100.00)	18.42 (100.00)
WESTERN MAHARASHTRA												
Nasik	7.11 (29.60)	6.40 (33.56)	34.30 (51.10)	45.83 (42.83)	12.90 (53.70)	8.54 (44.78)	10.10 (15.05)	30.27 (28.30)	24.02 (100.00)	19.07 (100.00)	67.12 (100.00)	106.97 (100.00)
Dhule	16.17 (44.91)	16.06 (46.55)	38.16 (50.19)	35.69 (46.74)	12.98 (36.05)	9.40 (27.30)	16.09 (21.16)	11.54 (15.11)	36.01 (100.00)	34.43 (100.00)	76.04 (100.00)	76.36 (100.00)
Jalgaon	10.51 (35.46)	10.43 (39.40)	37.71 (40.75)	42.19 (37.17)	8.83 (29.78)	5.40 (20.40)	14.17 (15.31)	15.06 (13.27)	29.65 (100.00)	26.47 (100.00)	92.54 (100.00)	113.50 (100.00)
Ahmednagar	0.91 (9.12)	2.51 (28.01)	9.39 (30.78)	5.93 (27.28)	8.53 (85.47)	3.59 (40.07)	7.07 (23.17)	2.08 (9.57)	9.98 (100.00)	8.96 (100.00)	30.51 (100.00)	21.74 (100.00)
Pune	4.27 (24.91)	8.38 (28.85)	29.24 (33.35)	4.37 (34.68)	11.00 (64.18)	16.66 (57.35)	37.52 (42.80)	3.91 (31.03)	17.14 (100.00)	29.05 (100.00)	87.67 (100.00)	12.60 (100.00)
Solapur	10.19 (27.24)	13.30 (32.09)	59.63 (35.38)	35.09 (35.48)	22.36 (59.79)	20.78 (50.15)	81.00 (48.06)	40.95 (41.42)	37.40 (100.00)	41.44 (100.00)	168.54 (100.00)	98.85 (100.00)
Satara	0.04 (1.16)	1.37 (28.31)	4.18 (33.25)	1.54 (22.78)	3.39 (98.26)	2.71 (55.91)	2.33 (18.54)	3.39 (50.15)	3.45 (100.00)	4.84 (100.00)	12.57 (100.00)	6.76 (100.00)
Sangli	0.30 (24.39)	6.90 (35.96)	7.37 (35.16)	2.62 (30.71)	0.80 (65.04)	9.01 (44.34)	7.22 (34.45)	2.57 (30.13)	1.23 (100.00)	20.32 (100.00)	20.96 (100.00)	8.53 (100.00)
Kolhapur	7.44 (30.31)	4.17 (26.29)	7.29 (23.54)	4.74 (30.25)	8.65 (35.23)	7.06 (44.51)	8.18 (26.41)	5.23 (33.38)	24.55 (100.00)	15.86 (100.00)	30.97 (100.00)	15.67 (100.00)
MARATHWADA												
Aurangabad	0.20 (22.47)	0.17 (50.00)	2.68 (34.80)	2.66 (40.49)	0.64 (71.91)	0.14 (41.18)	3.81 (49.48)	1.02 (15.53)	0.89 (100.00)	0.34 (100.00)	7.70 (100.00)	6.57 (100.00)
Parabhani	3.02 (31.52)	2.51 (32.02)	8.61 (43.27)	5.35 (33.42)	5.60 (58.46)	4.37 (55.74)	7.59 (38.14)	3.32 (20.73)	9.58 (100.00)	7.84 (100.00)	19.90 (100.00)	16.01 (100.00)
Beed	0.48 (15.69)	1.72 (29.20)	3.58 (32.63)	2.22 (24.58)	2.34 (76.47)	3.67 (62.31)	51.76 (52.51)	5.38 (59.58)	3.06 (100.00)	5.89 (100.00)	10.97 (100.00)	9.03 (100.00)
Wanded	1.60 (42.90)	5.57 (43.15)	9.56 (55.94)	3.15 (38.99)	1.42 (38.07)	4.48 (34.70)	3.71 (21.71)	1.62 (20.05)	3.73 (100.00)	12.91 (100.00)	17.09 (100.00)	8.08 (100.00)
Osmanabad	2.72 (25.47)	2.15 (33.13)	25.55 (36.98)	21.16 (35.11)	6.76 (63.30)	3.09 (47.610)	32.70 (47.32)	27.15 (45.05)	10.68 (100.00)	6.49 (100.00)	69.10 (100.00)	60.27 (100.00)
VIDARBHA												
Buldhana	24.52 (26.09)	7.25 (34.23)	12.41 (41.11)	18.86 (39.37)	57.38 (61.04)	9.08 (42.87)	7.28 (24.11)	16.32 (34.07)	94.00 (100.00)	21.18 (100.00)	30.19 (100.00)	47.90 (100.00)
Akola	17.06 (30.14)	22.96 (38.42)	23.95 (42.94)	29.06 (41.72)	28.79 (50.86)	22.20 (37.15)	16.75 (30.03)	19.92 (28.60)	56.61 (100.00)	59.76 (100.00)	55.78 (100.00)	69.65 (100.00)
Amaravati	1.90 (31.67)	2.78 (40.17)	30.12 (39.50)	22.39 (36.60)	2.62 (43.67)	1.98 (28.61)	15.71 (20.61)	12.25 (20.02)	6.00 (100.00)	6.92 (100.00)	76.25 (100.00)	61.18 (100.00)
Yavatmal	1.12 (16.92)	1.36 (34.43)	10.74 (42.70)	11.60 (48.35)	5.20 (78.55)	2.04 (51.65)	9.06 (36.02)	5.91 (24.64)	6.62 (100.00)	3.95 (100.00)	25.15 (100.00)	23.99 (100.00)
Wardha	19.50 (33.36)	24.06 (44.08)	20.92 (43.90)	2.45 (43.75)	31.02 (53.04)	20.15 (36.92)	11.64 (24.43)	1.15 (20.54)	58.48 (100.00)	54.58 (100.00)	47.65 (100.00)	5.60 (100.00)
Nagpur	49.20 (34.93)	19.76 (34.89)	14.38 (41.57)	7.42 (38.51)	70.86 (50.31)	23.09 (40.76)	7.60 (21.97)	3.68 (19.10)	140.86 (100.00)	56.64 (100.00)	34.59 (100.00)	19.27 (100.00)
Bhandara	14.92 (35.05)	11.83 (30.94)	31.61 (31.10)	13.74 (26.30)	10.04 (23.58)	5.05 (13.21)	12.36 (12.16)	4.25 (8.14)	42.57 (100.00)	38.24 (100.00)	101.64 (100.00)	52.24 (100.00)
Chandrapur	24.99 (40.42)	17.22 (42.37)	42.59 (42.07)	20.85 (43.25)	23.30 (37.68)	15.16 (37.31)	22.70 (22.42)	9.88 (20.49)	61.83 (100.00)	40.64 (100.00)	101.23 (100.00)	48.21 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the districts.

As regards the percentage area of marginal joint holdings, it was less than 10 per cent of the total throughout the study period in all district except Kulaba, Kolhapur and Bhandara in 1980-81 and Kulaba and Bhandara in 1985-86

ii. Changes in the area of joint small holdings:

The area under small joint holdings showed an increasing trend in majority of the districts in the State during the study period (1970-71 to 1985-86).

In 1970-71, the highest area under this category was in Bhandara district both absolute (5040 ha) and in percentage terms (11.84 per cent). With the exception of Kulaba, Jalgaon, Kolhapur, Akola and Amaravati districts, the area of small joint holdings was less than 5.00 per cent of the total. The proportion of area in the category increased in all districts except Ratnagiri, Kolhapur and Chandrapur during 1976-77 as compared to that in 1970-71. During 1980-81, the area declined in Akola and Nagpur as compared to that in the previous census. In 1985-86 the area declined in Wardha, Nagpur, Bhandara, Chandrapur (Vidarbha region), Beed (Marathwada), Kolhapur, Sangli, Satara, Solapur Pune (W. Maharashtra), Thana and Kulaba (Konkan). In the remaining districts the area of joint small holdings showed increasing trend. Considering the total period of 15 years, the area increased at the highest rate in Aurangabad (85 times). In Wardha and Nagpur districts the area declined.

iii. Changes in the area of joint semi-medium holdings:

The proportion of area under semi-medium holdings ranged from 0.58 per cent (Satara) to 31.32 per cent (Ahmednagar) during 1970-71 to 1985-86.

In 1970-71, the area under joint semi-medium holdings ranged from 20 ha in Satara to 15470 ha in Nagpur. The area was less than one thousand hectares in the districts of Aurangabad, Parbhani, Beed, Nanded, Osmanabad (Marathwada region), Ahmednagar, Satara, Sangli (Western Maharashtra), Amaravati, Yavatmal (Vidarbha) and Thana in Konkan region. The area of holdings in this category got reduced in 1976-77 in Aurangabad, Parbhani, Osmanabad (Marathwada region), Buldhana, Nagpur, Chandrapur (Vidarbha) and Kolhapur.

During the period 1980-81 to 1985-86, the area declined in majority of the districts except Nasik, Dhule, Jalgaon (Western Maharashtra), Aurangabad, Parbhani (Marathwada) Buldhana, Akola, Yavatmal (Vidarbha).

During the period of 4 censuses the area of semi-medium joint holdings increased in all districts except Kolhapur, Wardha and Nagpur.

iv. Changes in the area of joint medium holdings:

During 1985-86, the area showed positive trend only in Nasik, Jalgaon, Buldhana, Akola and Yavatmal.

The area under medium holdings in 1970-71 ranged between 40 hectares (Satara) to 49200 hectares (Nagpur). As regards the proportion of area, it was above 15 per cent of the total in all districts except Ahmednagar and Satara. In 1976-77, the area declined in Nasik, Dhule, Jalgaon, Kolhapur (Western Maharashtra), Buldhana, Nagpur, Bhandara, Chandrapur (Vidarbha), Aurangabad, Parbhani, Osmanabad (Marathwada) and Kulaba (Konkan) as compared to that in 1970-71. Satara and Sangli districts showed 33 and 22 times increase, respectively during this period. The area showed increase in all districts during 1980-81 as compared to that in 1976-77 except slight decline in Wardha and Nagpur.

Considering the total period of 15 years (1970-71 to 1985-86) under study, the area under medium joint holdings showed substantial increase in most of the districts except Buldhana, Wardha, Nagpur, Bhandara, Chandrapur (Vidarbha region) and Kolhapur. Continuous declining trend was observed in Nagpur district. The largest positive change in the area was observed in Satara followed by Aurangabad and Amaravati (above 10 times). However, there was a decline in the area in Wardha and Nagpur to the extent of 87 and 85 per cent, respectively.

v. Changes in the area of joint large holdings:

In 1970-71, the area under large joint holdings ranged from 640 ha (Aurangabad) to 70,860 ha (Nagpur). In percentage trend to the total area, it was above 50 per cent in all the districts except Kulaba, Dhule, Jalgaon, Kolhapur, Nanded, Amaravati, Bhandara and Chandrapur. Notably, the proportion of area of large joint holdings was 98.26 per cent in Satara followed by 85.47 per cent in Ahmednagar and 78.55 per cent in Yavatmal. In all the districts the area declined in 1976-77 as compared to that in 1970-71 except in Ratnagiri, Pune, Sangli, Beed and Nanded. The highest decline in the area was observed in Buldhana district while Sangli district shows 10 times increase in the area under this category. The proportion of area was above 50 per cent only in Ratnagiri, Pune, Solapur, Satara, Parbhani, Beed and Yavatmal. In some districts like Sangli, though the area increased by 10 times the proportionate share declined in 1976-77.

During 1980-81 the area declined as compared to that in 1976-77 in Buldhana, Akola, Wardha, Nagpur, (Vidarbha region), Nanded, Satara, Sangli and Ratnagiri district. In the remaining districts, the area increased notably 26 times in Aurangabad, 9 times in Osmanabad, 7 times in Amaravati, tripled in

Yavatmal, Thana and Solapur districts. In the period from 1980-81 to 1985-86, the area of large joint holdings showed overall decline in all districts except Nasik, Jalgaon, Satara, Buldhana and Akola.

Considering the period of 15 years, under study (1970-71 to 1985-86), Wardha and Nagpur showed continuous declining trend; while in rest of the districts ups and downs in area of joint large holdings were noted. The decline in the area during the above period was the largest in the districts of Vidarbha region (Wardha, Nagpur, Bhandara, Chandrapur, Buldhana and Akola) followed by Western Maharashtra (Dhule, Ahmednagar, Pune and Kolhapur), Parbhani in Marathwada and Ratnagiri in Konkan region.

An attempt was made to calculate the percentage change in the area of joint holdings from one census to the other and also the changes during the entire period of 15 years (1980-81 to 1985-86). The data in this respect for all the districts is given in Table 5.12. The analysis is done by size classes of holdings as below.

i. Percentage change in the area of joint marginal holdings:

During 1970-71 to 1976-77 the area of marginal joint holdings showed increasing trend in all the districts except Jalgaon, Kolhapur, Buldhana, Amaravati, Nagpur and Chandrapur. A substantial increase was observed in Sangli (28 times) while the largest decline was in Kolhapur (52.97 per cent).

During 1976-77 to 1980-81 the area of marginal joint holdings increased in all the districts except Akola. The area increase was more than 10 times in Thana (1069.56 per cent), Satara (1112.50 per cent), Amaravati (1394.11 per cent) and Yavatmal (1400 per cent).

Table 5.12 Percentage changes in the area of joint operational holdings by size-classes for different census periods in different districts of Maharashtra.

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	91.66	1069.56	-19.34	1708.33	104.34	789.36	-11.01	1517.39	50.68	681.81	-10.00	960.27
Kulaba	13.09	355.78	-52.20	146.42	4.95	254.33	-46.00	100.82	2.87	210.69	-49.71	60.76
Ratnagiri	4.87	62.79	41.42	141.46	41.66	39.70	52.63	202.08	37.03	50.00	-4.51	96.29
WESTERN MAHARASHTRA												
Nasik	14.28	477.50	29.00	751.42	6.45	450.50	37.79	707.52	0.36	445.98	35.69	643.58
Dhule	47.91	164.78	50.53	489.58	50.00	138.96	70.72	511.97	23.58	141.76	18.82	255.04
Jalgaon	-0.88	247.78	63.10	462.28	-	313.37	55.90	544.48	5.50	273.77	25.44	394.66
Ahmednagar	675.00	312.90	57.81	4950.00	446.66	418.29	15.29	3166.66	394.28	392.48	-20.08	1845.71
Pune	81.81	707.50	-78.64	213.63	102.32	543.67	-75.72	216.27	124.59	340.87	-81.21	86.06
Solapur	65.71	312.06	-28.04	391.42	60.74	273.25	-5.14	469.15	47.52	277.47	-21.37	337.90
Satara	-	1112.50	-67.01	-	-	760.00	-66.86	-	2300.00	602.08	-72.11	4600.00
Sangli	2800.00	186.20	-30.12	5700.00	6200.00	37.30	-32.95	5700.00	2760.00	33.21	-58.01	1500.00
Kolhapur	-52.97	262.10	-65.99	-42.08	-36.25	163.01	-52.60	-20.52	-46.51	270.27	-67.03	-34.70
MARATHWADA												
Aurangabad	-	-	420.00	-	-	2500.00	230.76	8500.00	-50.00	4150.00	77.65	3675.00
Parabhani	40.00	214.28	136.36	940.00	11.11	320.00	152.38	1077.77	-5.48	282.60	78.03	543.83
Beed	100.00	325.00	-52.95	300.00	175.00	254.54	-7.70	800.00	94.44	205.71	-7.48	450.00
Nanded	333.33	46.15	15.78	633.33	400.00	8.57	26.31	585.71	272.54	41.05	-28.74	274.50
Osmanabad	28.57	811.11	48.78	1642.85	38.46	580.55	46.12	1276.92	-8.05	847.50	-5.54	722.98
VIDARBHA												
Buldhana	-50.70	114.28	33.33	40.84	-55.64	129.23	7.38	9.21	-62.18	111.56	25.85	0.70
Akola	50.00	-8.14	35.39	86.58	42.21	-9.98	26.48	61.93	31.34	10.69	41.07	105.10
Amaravati	-15.00	1394.11	-11.82	1020.00	58.33	1343.85	5.58	2313.88	54.34	1283.00	-20.56	1596.73
Yavatmal	-	1400.00	33.33	-	160.00	892.30	38.75	3480.00	64.00	853.65	14.83	1696.00
Wardha	34.48	102.56	-78.49	-41.38	38.56	81.60	-85.20	-62.75	28.22	32.95	-87.94	-79.45
Nagpur	-28.04	29.87	-18.00	-23.37	-12.92	-5.12	-24.72	-37.80	-39.82	-13.11	-41.90	-69.62
Bhandara	40.52	208.46	-37.56	170.63	32.34	172.86	-38.41	122.42	10.43	154.90	-43.33	59.51
Chandrapur	-41.30	716.66	-56.46	108.69	-37.76	436.06	-49.54	68.36	-39.15	268.76	-51.15	9.60

Table 5.12 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	42.00	541.54	-14.28	681.00	-8.91	318.58	-30.03	166.81	15.32	482.01	-18.86	444.64
Kulaba	-7.70	246.60	-50.05	59.82	-13.67	135.52	-41.07	19.83	-6.31	204.45	-46.95	51.35
Ratnagiri	64.42	44.47	-23.80	81.02	194.10	-29.84	-57.90	-13.11	151.38	-16.36	-42.30	21.34
WESTERN MAHARASHTRA												
Nasik	-9.99	435.93	33.61	544.58	-33.80	18.26	199.70	134.65	-20.61	251.96	59.37	345.33
Dhule	-0.69	137.60	-6.48	120.71	-27.59	71.17	-28.28	-11.10	-4.39	120.85	0.42	112.05
Jalgaon	-0.77	261.55	11.88	301.42	-38.85	162.40	6.28	70.55	-10.73	249.60	22.64	282.79
Ahmednagar	178.88	274.10	-36.85	556.64	-57.92	96.93	70.58	75.62	-10.23	240.51	-28.75	117.83
Pune	96.25	248.92	-85.06	2.34	51.45	125.21	-89.58	-64.46	69.48	201.79	-85.63	-26.49
Solapur	30.52	348.34	-41.16	244.35	-7.07	289.79	-49.44	83.18	10.80	306.70	-41.34	164.38
Satara	3325.00	205.11	-63.16	3750.00	-20.06	-14.02	45.49	-	40.28	159.91	-46.23	95.94
Sangli	2200.00	6.81	-64.45	773.33	1026.25	-19.87	-64.41	221.25	1552.03	3.14	-59.30	593.49
Kolhapur	-43.96	74.82	-34.98	-36.30	-18.39	15.86	36.07	-39.54	-35.40	95.27	-49.41	-36.18
MARATHWADA												
Aurangabad	-15.00	1476.47	-0.75	1230.00	-78.13	2621.42	-73.23	59.37	-61.80	2164.70	-14.68	638.20
Parabhani	-16.89	243.02	-37.87	77.15	-21.97	73.68	-56.26	-40.72	-18.17	153.82	-19.55	67.11
Beed	258.33	108.13	-37.99	362.50	56.83	56.94	-6.60	129.91	92.48	86.24	-17.69	195.09
Wanded	248.12	71.63	-67.05	96.87	215.49	-17.19	-56.33	14.08	246.11	32.37	-52.72	116.62
Osmanabad	-20.96	1088.37	-17.18	677.94	-54.29	958.25	-16.98	301.62	-39.23	964.71	-12.78	464.32
VIDARBHA												
Buldhana	-70.44	71.17	51.97	-23.08	-84.18	-19.83	124.18	-71.56	-77.47	42.54	58.66	-49.04
Akola	34.58	4.31	21.33	70.33	-22.89	-24.55	18.92	-30.81	5.56	6.66	24.86	23.03
Amaravati	46.31	983.45	-25.67	1078.42	-24.43	693.43	-22.03	367.55	15.33	1001.87	-19.77	919.66
Yavatmal	21.42	689.70	8.01	935.71	-60.77	344.11	-34.77	13.65	-40.34	536.70	-4.62	262.38
Wardha	23.32	-13.06	-88.29	-87.45	-35.04	-42.23	-90.13	-96.30	-6.67	-12.70	-88.25	-90.43
Nagpur	-59.84	-27.23	-48.40	-84.92	-67.42	-67.09	-51.58	-94.81	-59.79	-38.93	-44.29	-86.32
Bhandara	-20.71	167.20	-56.53	-7.91	-49.70	144.75	-65.62	-57.67	-10.18	165.79	-48.60	22.71
Chandrapur	-31.09	147.33	-51.05	-16.57	-34.94	49.74	-56.48	-57.60	-34.28	149.08	-52.38	-22.03

During 1980-81 to 1985-86 more districts showed declining area including Thana, Kulaba, Pune, Solapur, Satara, Sangli, Kolhapur, Beed, Amaravati, Wardha, Nagpur, Bhandara and Chandrapur.

Considering the period of 15 years (1970-71 to 1985-86) a drastic increase in the area was observed in Sangli (5700 per cent) followed by Ahmednagar (4950 per cent), Thana (1708.33 per cent), Osmanabad (1642.85 per cent) and Amaravati (1020 per cent). Kolhapur, Wardha and Nagpur districts showed decline by 42.08, 41.38, 23.37 per cent, respectively.

ii. Percentage change in the area of joint small holdings:

During the period from 1970-71 to 1976-77, the area of small joint holdings declined in Buldhana (55.64 per cent), Chandrapur (37.76 per cent), Nagpur (12.92 per cent) (Vidarbha region) and Kolhapur (36.25 per cent) (W. Maharashtra). A substantial increase in the area during the period was observed in Sangli (6200 per cent).

During 1980-81 to 1985-86 the decline in the area ranged from 5.14 per cent (Solapur) to 85.20 per cent (Wardha). The largest increase (230.76 per cent) was in Aurangabad while the smallest (5.58 per cent) in Amaravati district.

During 1970-71 to 1985-86, a substantial increase in the area was observed in Aurangabad (8500 per cent) followed by Sangli (5700 per cent), Yavatmal (3480 per cent), Ahmednagar (3166.66 per cent) and Amaravati (2313.88 per cent). In Parbhani, Beed, Nanded, Osmanabad (Marathwada), Thana (Konkan), Nasik, Dhule and Jalgaon (Western Maharashtra) the area of joint small holdings increased between 500 per cent to 1500 per cent. Kulaba, Ratnagiri, Pune, Solapur and Bhandara showed an increase in area in the range of 100 per cent to 500 per cent. The declining trend was observed only in Kolhapur, Nagpur and Wardha.

iii. Percentage change in the area of joint semi-medium holdings:

The area of semi-medium joint holdings showed a continuous increasing trend during the period of 15 years (1970-71 to 1985-86) in Nasik, Dhule, Jalgaon, Akola and Yavatmal districts, while clear declining trend was observed in Nagpur district. In the remaining districts the trend was of mixed type.

During 1970-71 to 1976-77, a substantial increase in the area under the category was found in Sangli (2760.00 per cent) and Satara (2300 per cent) districts. In Aurangabad, Parbhani, Osmanabad (Marathwada region), Buldhana, Nagpur, Chandrapur (Vidarbha region) and Kolhapur (Western Maharashtra) the area showed declining trend. In the remaining districts the increasing trend ranged from 0.36 per cent (Nasik) to 394.28 per cent (Ahmednagar).

During 1976-77 to 1980-81, all the districts except Nagpur showed an increasing trend ranging from 10.69 per cent (Akola) to 4150.00 per cent (Aurangabad).

During 1980-81 to 1985-86, the area of semi-medium joint holdings declined in Thana, Kulaba, Ratnagiri (Konkan), Ahmednagar, Pune, Solapur, Satara, Sangli, Kolhapur (Western Maharashtra), Beed, Nanded, Osmananbad (Marathwada), Amaravati, Wardha, Nagpur, Bhandara and Chandrapur districts (Vidarbha). The decline ranged from 4.51 per cent in Ratnagiri to 87.94 per cent in Wardha.

Considering the total period of 15 years (1970-71 to 1985-86), all the districts showed an increasing area except Wardha and Nagpur. A substantial increase was noted in Satara (4600 per cent) followed by Aurangabad (3675 per cent).

iv. Percentage change in the area of joint medium holdings:

The per cent increase in the area was substantial in Satara (3325 per cent) and Sangli (2200 per cent) districts during the period from 1970-71 to 1976-77. The decline in the area was observed to be relatively more in Buldhana (70.44 per cent) and Nagpur (59.84 per cent) districts.

During 1976-77 to 1980-81, in majority of the districts percentage increase in the area was more as compared to the previous period (1970-71 to 1976-77). Only in Wardha and Nagpur, the area showed negative figures. The percentage increase in the area ranged from 4.31 per cent (Akola) to 1476.47 per cent (Aurangabad). The area increase was above 500 per cent in Thana, Osmanabad, Amaravati and Yavatmal.

During the period from 1980-81 to 1985-86, the percentage area of medium joint holdings showed negative trend in all the districts except Nasik, Jalgaon, Buldhana, Akola and Yavatmal. The decline ranged from 0.75 per cent (Aurangabad) to 88.29 per cent (Wardha).

Considering the total period of 15 years (1970-71 to 1985-86), Buldhana, Wardha, Nagpur, Bhandara, Chandrapur (Vidarbha region) and Kolhapur districts (W. Maharashtra) showed declining trend. A substantial percentage increase in the area was observed in Satara (3750 per cent).

v. Percentage change in the area of joint large holdings:

During 1970-71 to 1976-77, all the districts showed a declining trend in the area of large joint holdings except Ratnagiri, Pune, Sangli, Beed and Nanded. The percentage increase in the area ranged from 51.45 per cent (Pune) to 1026.25 per cent (Sangli). The decline in the area ranged from 7.07 per cent (Solapur) to 84.18 per cent (Buldhana).

During 1976-77 to 1980-81, the area declined in Buldhana, Akola, Wardha, Nagpur (Vidarbha), Satara, Sangli, Nanded and Ratnagiri. In the remaining districts the area showed increasing trend. The drastic increase was observed in Aurangabad (2621.42 per cent).

During 1980-81 to 1985-86, the declining trend in the area was observed in all districts of Konkan, Marathwada, Vidarbha (except Buldhana and Akola districts) and Western Maharashtra (except Nasik, Jalgaon, Satara districts).

Considering the total period of 15 years the trend was mixed one. The area increased above 300 per cent in Osmanabad, Amaravati; above 200 per cent in Sangli; above 100 per cent in Thana, Nasik and Beed. A substantial decline in the area was observed in Wardha, Nagpur (above 90 per cent), Buldhana, Ahmednagar (above 70 per cent), Pune (above 60 per cent).

In general, the area of joint operational holdings declined in Wardha, Nagpur, Buldhana, Kolhapur and Pune districts during the period from 1970-71 to 1985-86. Of the remaining districts the increase in the area during the same period was the highest in Amaravati district (919.66 per cent) followed by Aurangabad, Sangli, Osmanabad, Thana districts and the lowest in Ratnagiri (21.34 per cent).

The area of marginal, small, semi-medium joint operational holdings showed declining trend in Kolhapur, Wardha, Nagpur districts while it increased in Thana, Ahmednagar, Sangli, Osmanabad, Amaravati districts during the period from 1970-71 to 1985-86. The medium and large holdings showed declining trend during 1980-81 to 1985-86 in majority of the districts.

The land held by institution and cultivated under its management was included under the category of individual operational holdings in Agricultural census report 1970-71. The data for institutional operational holdings was available in further census reports but it was found that the figures were too

small to discuss in the present format. Therefore, the analysis of institutional operational holdings was not undertaken.

5.2 OWNERSHIP HOLDINGS:

As mentioned in the previous chapter ownership holdings are categorized into 3 classes, *viz.*, wholly owned, wholly rented and partly owned or rented. An attempt is made here to analyze the data in respect of the three categories at the district level.

5.2.1 Changes in the Distribution of Number of Wholly Owned Holdings in Different Districts:

The distribution of number of wholly owned holdings in different size classes in different districts during the 4 census years is presented in Table 5.13. The analysis is attempted below separately for different size classes of holdings.

i. Changes in the number of wholly owned marginal holdings:

The increasing trend in the wholly owned marginal holdings was noted during the period from 1970-71 to 1976-77 and 1980-81 in all the districts. However, there was a sudden decline in 1985-86 with the exception of Thana, Kulaba, Ratnagiri districts.

The proportionate share of marginal holdings in the total under the category was above 40 per cent in Thana, Kulaba, Ratnagiri, Satara, Kolhapur and Bhandara districts during 1970-71. In 1985-86 all these districts showed a gain above 50 per cent in the number of holdings. The absolute number of holdings was the highest in Ratnagiri which rose from 1,69,840 in 1970-71 to 2,43,960 in 1985-86. A substantial increase in the number was also observed in

Table 5.13 Distribution of number of wholly owned holdings by size-classes in different district of Maharashtra

(Numbers in thousands)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	57.14 (46.84)	69.90 (46.55)	82.14 (46.86)	105.65 (51.23)	21.67 (17.76)	30.06 (20.02)	36.63 (20.89)	41.61 (20.18)	19.46 (15.95)	23.98 (15.97)	29.62 (16.90)	31.20 (15.13)
Kulaba	72.33 (50.71)	101.66 (55.14)	119.43 (56.34)	117.16 (57.46)	30.58 (21.43)	37.65 (20.42)	42.83 (20.20)	39.68 (19.46)	21.92 (15.37)	26.04 (14.12)	29.72 (14.02)	26.66 (13.07)
Ratnagiri	169.84 (48.59)	180.88 (48.72)	215.56 (48.63)	243.96 (50.50)	54.42 (15.57)	59.34 (15.98)	71.85 (16.21)	90.14 (18.66)	55.13 (15.77)	59.89 (16.13)	75.51 (17.03)	72.31 (14.96)
WESTERN MAHARASHTRA												
Nasik	38.32 (18.29)	49.40 (20.28)	117.42 (40.69)	48.54 (15.58)	35.16 (16.78)	44.67 (18.34)	45.12 (15.64)	85.22 (27.36)	51.62 (24.64)	62.69 (25.74)	59.93 (20.77)	95.22 (30.57)
Dhule	17.58 (12.30)	20.45 (12.56)	81.20 (39.32)	54.65 (18.91)	23.26 (16.28)	28.53 (17.53)	34.03 (16.48)	101.52 (35.12)	36.43 (25.50)	44.13 (27.12)	40.16 (19.45)	80.78 (27.95)
Jalgaon	41.26 (18.72)	45.73 (18.67)	127.86 (46.70)	76.33 (22.98)	53.32 (24.19)	59.77 (24.41)	45.44 (16.60)	108.69 (32.72)	59.19 (26.85)	68.64 (28.03)	50.40 (18.41)	89.51 (26.94)
Ahmednagar	42.76 (17.44)	66.37 (21.28)	175.09 (46.53)	132.81 (28.50)	40.35 (16.45)	59.84 (19.19)	63.81 (16.96)	126.52 (27.15)	57.89 (23.60)	79.70 (25.56)	69.61 (18.50)	127.24 (27.31)
Pune	77.24 (28.69)	96.44 (30.83)	189.45 (52.52)	146.84 (34.62)	48.45 (18.00)	60.10 (19.22)	51.15 (14.18)	97.28 (22.94)	58.26 (21.64)	68.19 (21.80)	56.65 (15.70)	97.16 (22.91)
Solapur	28.78 (13.72)	35.27 (14.90)	88.99 (33.68)	56.40 (16.77)	29.72 (14.17)	37.37 (15.78)	39.47 (14.94)	77.61 (23.07)	47.98 (22.88)	56.42 (23.83)	52.10 (19.72)	97.97 (29.12)
Satara	106.63 (41.03)	132.28 (42.57)	267.71 (69.63)	265.42 (52.89)	52.34 (20.14)	66.08 (21.27)	45.77 (11.90)	117.59 (23.43)	50.95 (19.61)	61.15 (19.68)	40.03 (10.41)	80.16 (15.98)
Sangli	71.18 (34.99)	87.04 (36.57)	172.88 (54.63)	158.93 (45.67)	40.46 (19.89)	49.69 (20.87)	35.45 (11.20)	79.01 (22.70)	41.44 (20.37)	49.19 (20.67)	71.41 (22.57)	64.94 (18.66)
Kolhapur	122.39 (53.72)	147.33 (55.41)	253.17 (78.10)	235.43 (62.54)	44.38 (19.48)	54.59 (20.53)	31.57 (9.74)	73.34 (19.48)	35.13 (15.42)	39.70 (14.93)	23.55 (7.27)	46.00 (12.22)
MARATHWADA												
Aurangabad	18.44 (9.09)	30.62 (11.84)	128.97 (35.20)	96.00 (18.96)	27.36 (13.49)	45.22 (17.49)	64.01 (17.47)	146.04 (28.85)	49.55 (24.43)	71.73 (27.74)	77.88 (21.26)	154.64 (30.55)
Parabhani	11.48 (7.80)	23.91 (11.15)	-83.60 (34.43)	51.25 (16.87)	18.23 (12.38)	37.93 (17.70)	42.40 (17.46)	85.01 (27.99)	34.80 (23.64)	57.92 (27.02)	55.29 (22.77)	93.17 (30.68)
Beed	15.53 (10.95)	31.82 (15.72)	101.84 (39.30)	78.16 (24.56)	20.44 (14.42)	38.46 (19.00)	46.63 (17.99)	84.05 (26.41)	33.95 (23.95)	51.52 (25.45)	50.14 (19.35)	85.05 (26.72)
Wanded	18.36 (12.34)	30.29 (15.95)	94.24 (41.41)	66.05 (21.24)	23.11 (15.53)	38.27 (20.15)	41.18 (18.04)	91.81 (29.52)	38.84 (26.10)	52.09 (27.43)	46.53 (20.38)	93.10 (29.93)
Osmanabad	12.53 (7.13)	20.44 (8.91)	88.60 (31.20)	49.66 (13.59)	21.23 (12.08)	37.74 (16.45)	43.27 (15.24)	88.46 (24.21)	40.66 (23.14)	59.03 (25.74)	60.69 (21.37)	109.82 (30.05)
VIDARBHA												
Buldhana	23.20 (16.07)	27.26 (15.61)	110.80 (47.68)	45.81 (19.56)	32.27 (22.36)	40.96 (23.45)	40.48 (17.42)	70.00 (29.89)	35.59 (24.66)	46.05 (26.37)	40.81 (17.56)	63.40 (27.09)
Akola	24.23 (15.58)	29.99 (15.45)	108.00 (44.78)	45.75 (18.07)	33.65 (21.64)	45.71 (23.55)	44.67 (18.52)	75.59 (29.80)	38.38 (24.69)	51.04 (26.30)	41.46 (17.19)	68.81 (27.18)
Amaravati	33.79 (21.33)	37.52 (19.22)	131.69 (44.91)	58.39 (21.03)	39.46 (24.90)	53.62 (27.46)	41.98 (14.32)	101.76 (36.66)	38.09 (24.04)	49.96 (25.59)	41.24 (14.07)	65.87 (23.73)
Yavatmal	4.24 (3.80)	5.32 (3.46)	69.15 (31.40)	19.46 (7.63)	14.43 (12.93)	28.42 (18.50)	44.85 (20.37)	74.26 (29.12)	28.32 (25.38)	42.92 (27.95)	50.27 (22.83)	86.42 (33.89)
Wardha	6.53 (8.54)	9.65 (9.81)	46.22 (38.07)	15.62 (11.99)	13.62 (12.81)	19.59 (19.91)	22.46 (18.50)	37.19 (28.55)	20.69 (27.05)	28.39 (28.85)	24.30 (20.01)	40.94 (31.42)
Nagpur	14.86 (12.63)	19.77 (13.32)	75.03 (41.55)	32.34 (16.68)	31.18 (18.00)	31.54 (21.26)	32.38 (17.93)	56.98 (29.39)	31.59 (26.85)	43.07 (29.03)	35.15 (19.46)	55.39 (28.57)
Bhandara	83.90 (43.76)	100.47 (46.28)	193.66 (75.03)	146.99 (52.41)	44.73 (23.33)	51.38 (23.67)	27.92 (10.82)	71.18 (25.38)	36.51 (19.04)	39.28 (18.09)	21.39 (8.29)	41.88 (14.93)
Chandrapur	40.55 (25.20)	52.08 (26.15)	134.47 (52.96)	15.44 (7.33)	32.41 (20.15)	42.13 (21.15)	40.60 (15.99)	68.87 (32.71)	39.24 (24.39)	48.87 (24.54)	40.08 (15.78)	71.11 (33.78)

Table 5.13 (Continued...)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	16.89 (13.84)	19.52 (13.00)	20.76 (11.84)	22.60 (10.96)	6.84 (5.61)	6.69 (4.46)	6.16 (3.51)	5.15 (2.50)	122.00 (100.00)	150.15 (100.00)	175.31 (100.00)	206.21 (100.00)
Kulaba	13.69 (9.60)	14.85 (8.06)	16.25 (7.67)	16.95 (8.31)	4.12 (2.89)	4.17 (2.26)	3.76 (1.77)	3.46 (1.70)	142.64 (100.00)	184.37 (100.00)	211.99 (100.00)	203.91 (100.00)
Batnagiri	51.32 (14.68)	52.77 (14.21)	61.70 (13.92)	59.42 (12.30)	18.82 (5.39)	18.43 (4.96)	18.66 (4.21)	17.29 (3.58)	349.53 (100.00)	371.31 (100.00)	443.28 (100.00)	483.12 (100.00)
WESTERN MAHARASHTRA												
Nasik	62.47 (29.82)	67.61 (27.76)	64.21 (22.25)	69.53 (22.32)	21.92 (10.47)	19.19 (7.88)	1.87 (0.65)	12.97 (4.17)	209.49 (100.00)	243.56 (100.00)	288.55 (100.00)	311.48 (100.00)
Dhule	50.92 (35.64)	56.61 (34.78)	50.54 (24.47)	47.07 (16.29)	14.69 (10.28)	13.03 (8.01)	0.57 (0.28)	5.00 (1.73)	142.88 (100.00)	162.75 (100.00)	206.50 (100.00)	289.02 (100.00)
Jalgaon	52.39 (23.77)	58.59 (23.92)	49.57 (18.10)	51.91 (15.62)	14.27 (6.47)	12.17 (4.97)	0.53 (0.19)	5.77 (1.74)	220.43 (100.00)	244.90 (100.00)	273.80 (100.00)	332.21 (100.00)
Ahmednagar	72.36 (29.50)	79.73 (25.57)	65.38 (17.37)	68.10 (14.62)	31.91 (13.01)	26.20 (8.40)	2.42 (0.64)	11.25 (2.42)	245.27 (100.00)	311.84 (100.00)	376.31 (100.00)	465.92 (100.00)
Pune	61.11 (22.70)	65.88 (21.06)	60.38 (16.74)	67.44 (15.90)	24.13 (8.97)	22.18 (7.09)	3.09 (0.86)	15.40 (3.63)	269.19 (100.00)	312.79 (100.00)	360.72 (100.00)	424.12 (100.00)
Solapur	67.31 (32.10)	73.73 (31.14)	79.81 (30.21)	82.04 (24.39)	35.91 (17.13)	33.99 (14.35)	3.84 (1.45)	22.37 (6.65)	209.70 (100.00)	236.78 (100.00)	264.21 (100.00)	336.39 (100.00)
Satara	39.44 (15.18)	41.75 (13.44)	29.94 (7.79)	34.28 (6.83)	10.49 (4.04)	9.45 (3.04)	1.02 (0.27)	4.35 (0.87)	259.85 (100.00)	310.71 (100.00)	384.47 (100.00)	501.80 (100.00)
Sangli	36.53 (17.96)	39.23 (16.48)	35.23 (11.13)	37.13 (10.67)	13.80 (6.79)	12.88 (5.41)	1.48 (0.47)	8.00 (2.30)	203.41 (100.00)	238.03 (100.00)	316.45 (100.00)	348.01 (100.00)
Kolhapur	21.70 (9.52)	20.65 (7.77)	15.38 (4.74)	19.30 (5.13)	4.24 (1.86)	3.61 (1.36)	0.48 (0.15)	2.40 (0.63)	227.84 (100.00)	265.88 (100.00)	324.15 (100.00)	376.47 (100.00)
MARATHWADA												
Aurangabad	73.18 (36.09)	85.62 (33.12)	94.29 (25.73)	96.83 (19.13)	34.27 (16.90)	25.36 (9.81)	1.24 (0.34)	12.70 (2.51)	202.80 (100.00)	258.55 (100.00)	366.39 (100.00)	506.21 (100.00)
Parabhani	54.68 (37.14)	72.76 (33.95)	60.69 (25.00)	67.19 (22.12)	28.03 (19.04)	21.82 (10.18)	0.82 (0.34)	7.11 (2.34)	147.22 (100.00)	214.34 (100.00)	242.80 (100.00)	303.73 (100.00)
Beed	47.64 (33.61)	59.17 (29.22)	59.25 (22.87)	61.42 (19.30)	24.19 (17.07)	21.49 (10.61)	1.28 (0.49)	9.58 (3.01)	141.75 (100.00)	202.46 (100.00)	259.14 (100.00)	318.26 (100.00)
Wanded	52.29 (35.13)	56.81 (29.91)	45.59 (19.97)	54.75 (17.60)	16.23 (10.90)	12.46 (6.56)	0.47 (0.20)	5.31 (1.71)	148.83 (100.00)	189.92 (100.00)	228.31 (100.00)	311.02 (100.00)
Osmanabad	65.93 (37.53)	80.07 (34.91)	88.89 (31.30)	97.84 (26.77)	35.35 (20.12)	32.08 (13.99)	2.53 (0.89)	19.65 (5.38)	175.70 (100.00)	229.36 (100.00)	283.98 (100.00)	365.43 (100.00)
VIDARBA												
Buldhana	35.86 (24.84)	45.07 (25.81)	39.27 (16.90)	46.42 (19.82)	17.43 (12.07)	15.29 (8.76)	1.04 (0.44)	8.53 (3.64)	144.35 (100.00)	174.63 (100.00)	232.40 (100.00)	234.16 (100.00)
Akola	40.18 (25.84)	50.38 (25.95)	45.91 (19.04)	52.16 (20.61)	19.04 (12.25)	16.98 (8.75)	1.13 (0.47)	10.83 (4.28)	155.48 (100.00)	194.10 (100.00)	241.17 (100.00)	253.14 (100.00)
Amaravati	33.63 (21.23)	42.03 (21.53)	77.52 (26.44)	43.64 (15.72)	13.47 (8.50)	12.12 (6.20)	0.77 (0.26)	7.93 (2.86)	158.44 (100.00)	195.25 (100.00)	293.20 (100.00)	277.59 (100.00)
Yavatmal	43.06 (38.60)	56.46 (36.76)	54.55 (24.77)	65.78 (24.62)	21.52 (19.29)	20.47 (13.33)	1.39 (0.63)	12.11 (4.74)	111.57 (100.00)	153.59 (100.00)	220.21 (100.00)	255.03 (100.00)
Wardha	25.05 (32.75)	31.85 (32.36)	27.83 (22.92)	31.41 (24.11)	10.59 (13.85)	8.93 (9.07)	0.60 (0.50)	5.12 (3.93)	76.48 (100.00)	98.41 (100.00)	121.41 (100.00)	130.28 (100.00)
Nagpur	36.84 (31.32)	43.54 (29.35)	37.13 (20.56)	42.67 (22.01)	13.17 (11.20)	10.45 (7.04)	0.90 (0.50)	6.51 (3.35)	117.64 (100.00)	148.37 (100.00)	180.59 (100.00)	193.89 (100.00)
Bhandara	21.81 (11.38)	22.02 (10.14)	14.84 (5.75)	18.37 (6.55)	4.78 (2.49)	3.94 (1.82)	0.30 (0.11)	2.05 (0.73)	191.73 (100.00)	217.09 (100.00)	258.11 (100.00)	280.47 (100.00)
Chandrapur	37.68 (23.42)	45.07 (22.63)	37.97 (14.95)	48.04 (22.82)	11.01 (6.84)	11.01 (5.53)	0.81 (0.32)	7.08 (3.36)	160.89 (100.00)	199.16 (100.00)	253.93 (100.00)	210.54 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the districts.

Aurnagabad, Beed, where the holdings showed an increase in 1985-86 more than four times that in 1970-71. About 3 times increase in the number of holdings in 1985-86 over 1970-71 was observed in Parbhani, Osmanabad and Yavatmal districts. The drastic decline in the number of holdings in 1985-86 as compared to all the previous census was noted in Chandrapur district. The proportion of marginal holdings to total in Chandrapur was 25.20 per cent in 1970-71 which increased to 26.15 per cent and 52.96 per cent in subsequent censuses but declined to 7.33 per cent in 1985-86. This need thorough probing in the matter.

ii. Changes in the number of wholly owned small holdings:

The wholly owned small holdings showed continuous increasing trend during the period of 4 censuses in all districts of Marathwada region, Thana, Ratnagiri of Konkan region, Nasik, Dhule, Ahmednagar, Solapur of Western Maharashtra and Yavatmal, Wardha, Nagpur of Vidarbha region.

The proportion of number of wholly owned small holdings ranged between 12.08 per cent (Osmanabad) and 24.90 per cent (Amaravati) during 1970-71. During 1985-86 the range varied from 18.66 per cent (Ratnagiri) to 36.66 per cent (Amaravati). Amaravati district showed the leading proportion during 1970-71 1976-77 and 1985-86. All the districts showed more number of holdings in 1976-77 as compared to that in 1970-71. During 1980-81, Jalgaon, Pune, Satara, Sangli, Kolhapur (Western Maharashtra), Buldhana, Akola, Amaravati, Bhandara and Chandrapur (Vidarbha) showed lower number of holdings as compared to that in the previous census year (1976-77). During the census year 1985-86, all the districts except Kulaba showed increasing trend over 1980-81.

Considering the total period of 15 years (4 censuses) the wholly owned small holdings increased more than five times in Aurangabad, Yavatmal and more

than four times in Parbhani, Beed, Nanded, Osmanabad (Marathwada), and Dhule district and tripled in Ahmednagar.

iii. Changes in the number of wholly owned semi-medium holdings:

The wholly owned semi-medium holdings showed continuous increasing trend for four census periods in Thana, Aurangabad, Osmanabad and Yavatmal districts of the State. In the remaining districts these holdings showed a mixed trend.

The absolute number of holdings ranged from 19,460 in Thana to 59,190 in Jalgaon during 1970-71. It ranged from 26,660 in Kulaba to 1,54,640 in Aurangabad during 1985-86. This indicates a spectacular growth in the number of wholly owned semi-medium holdings during the period under study.

The number of holdings showed an increasing trend in all the districts during 1976-77 census as compared to the previous one (1970-71). However, during 1976-77 to 1980-81, there was a decline in all districts except Thana, Kulaba, Ratnagiri (Konkan), Aurangabad, Osmanabad (Marathwada), Sangli and Yavatmal district.

Considering the total period of 15 years, the number of holdings in this category were observed to be increased in all the districts of the state.

iv. Changes in the number of wholly owned medium holdings:

The number of wholly owned medium holdings showed a marginal increase during 1976-77 over previous census (1970-71) in all districts except Kolhapur. A similar trend was noted during 1985-86 with exceptions of Ratnagiri, Dhule and Amaravati districts. During 1980-81, there was decline in the number of wholly

owned medium holdings as compared to that in 1976-77 in all the districts except Thana, Kulaba, Ratnagiri, Solapur, Aurangabad, Beed, Osmanabad and Amaravati.

The proportionate share of wholly owned medium holdings ranged from 9.52 per cent (Kolhapur) to 38.60 per cent (Yavatmal) during 1970-71 census. Though the number of holdings were found to be increasing in the subsequent census year with few exceptions, their proportionate share showed a negative trend. During 1985-86, the proportion ranged from 5.13 per cent (Kolhapur) to 26.77 per cent (Osmanabad). The number of holdings in this category ranged from 13,690 (Kulaba) to 73,180 (Aurangabad) during 1970-71 and from 16,950 (Kulaba) to 97,840 (Osmanabad) during 1985-86.

v. Changes in the number of wholly owned large holdings:

The overall decline in the number of wholly owned large holdings was observed during 1976-77 and 1980-81 Agricultural censuses as compared to the respective previous censuses. The decline during 1980-81 in all the districts was spectacular. The number of wholly owned large holdings again increased during 1985-86 over 1980-81 but it was far below the previous level.

During 1970-71, the proportion of number of large holdings ranged from 1.86 per cent (Kolhapur) to 20.12 per cent (Osmanabad). During 1985-86, it ranged from 0.63 per cent (Kolhapur) to 6.65 per cent (Solapur).

Percentage change in the number of wholly owned holdings were calculated from one census to another and also for the entire period of 4 censuses (1970-71 to 1985-86). The data are given in Table 5.14 and discussed below by size classes of holdings.

Table 5.14 Percentage change in the number of wholly owned holdings by size classes for different census periods in different districts of Maharashtra

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	22.33	17.51	28.62	84.89	38.71	21.85	13.59	92.01	23.22	23.51	5.33	60.32
Kulaba	40.55	17.47	-1.90	61.98	23.12	13.76	-7.35	29.76	18.79	14.13	-10.30	21.62
Ratnagiri	6.50	19.17	13.17	43.64	9.04	21.08	25.45	65.63	8.63	26.08	-4.24	31.16
WESTERN MAHARASHTRA												
Nasik	28.91	137.69	-58.66	26.67	27.04	1.01	88.87	142.37	21.44	-4.40	58.88	84.46
Dhule	16.32	297.06	-32.70	210.86	22.65	19.27	198.32	336.45	21.13	-9.00	101.14	121.74
Jalgaon	10.83	179.59	-40.30	84.99	12.09	-23.98	139.19	103.84	15.96	-26.58	77.60	51.22
Ahmednagar	55.21	163.80	-24.15	210.59	48.30	6.63	98.27	213.55	37.67	-12.66	82.78	119.79
Pune	24.85	96.44	-22.50	90.10	24.04	-14.90	90.18	100.78	17.04	-16.93	71.50	66.76
Solapur	22.55	152.31	-36.63	95.96	25.74	5.62	96.63	161.13	17.59	-7.66	88.04	104.18
Satara	24.05	102.38	-0.86	148.91	26.25	-30.74	156.91	124.66	20.01	-34.54	100.24	57.33
Sangli	22.28	98.62	-8.07	123.28	22.81	-28.66	122.88	95.27	18.70	45.17	-9.06	56.70
Kolhapur	20.37	71.83	-7.01	92.36	23.00	-42.17	132.30	62.25	13.00	-40.68	95.32	30.94
MARATHWADA												
Aurangabad	66.05	321.19	-25.57	420.60	65.27	41.55	128.15	433.77	44.76	8.57	98.56	212.08
Parabhani	108.27	249.64	-38.70	346.42	108.06	11.78	100.49	366.31	66.43	-4.55	68.51	167.72
Beed	104.89	220.05	-23.26	403.28	88.16	21.24	80.24	311.20	51.75	-2.68	69.62	150.51
Nanded	64.97	212.11	-30.14	259.75	65.59	7.60	122.94	297.27	34.11	-10.68	100.08	139.70
Osmanabad	63.12	333.46	-43.96	296.32	77.76	14.65	104.43	316.67	45.17	2.81	80.95	170.09
VIDARBHA												
Buldhana	17.50	306.45	-58.66	97.45	26.92	-1.18	72.92	116.91	29.39	-11.38	55.35	78.13
Akola	23.77	260.12	-57.64	88.81	35.83	-2.28	69.21	124.63	32.98	-18.77	65.96	79.28
Anaravati	11.03	250.98	-55.67	72.80	35.88	-21.71	142.40	157.88	31.16	-17.46	59.72	72.93
Yavatmal	25.47	1199.81	-71.86	358.96	96.95	57.81	65.57	414.62	51.55	17.12	71.91	205.15
Wardha	47.77	378.96	-66.21	139.20	43.83	14.65	65.58	173.02	37.21	-14.41	68.47	97.87
Nagpur	33.04	279.51	-56.90	117.63	48.91	3.99	75.97	169.02	36.34	-18.39	57.58	75.34
Bhandara	19.74	92.75	-24.10	75.19	14.86	-45.66	154.94	59.13	7.58	-45.55	95.79	14.70
Chandrapur	28.43	158.19	-88.52	-61.93	29.99	-3.64	69.63	112.49	24.54	-17.99	77.42	81.21

Table 5.14 (Continued....)

District	Medium				Large				Over All			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	15.57	6.35	8.86	33.80	-2.20	-7.92	-16.40	-24.71	23.07	16.75	17.62	69.02
Kulaba	8.47	9.42	4.30	23.81	1.21	-9.84	-7.98	-16.02	29.25	14.98	-3.82	42.95
Ratnagiri	2.82	16.92	-3.70	15.78	-2.08	1.24	-7.34	-8.13	6.23	19.38	8.98	38.22
WESTERN MAHARASHTRA												
Nasik	8.22	-5.03	8.28	11.30	-12.46	-90.25	593.58	-40.84	16.26	18.47	7.94	48.68
Dhule	11.17	-10.73	-6.87	-7.57	-11.30	-95.63	777.19	-65.97	13.90	26.88	39.96	102.28
Jalgaon	11.83	-15.40	4.72	-0.92	-14.72	-95.65	988.67	-59.57	11.10	11.80	21.33	50.71
Ahmednagar	10.18	-18.00	4.16	-5.89	-17.90	-90.77	364.87	-64.75	27.14	20.67	23.81	89.96
Pune	7.80	-8.35	11.69	10.35	-8.08	-86.07	398.38	-36.18	16.19	15.32	17.57	57.55
Solapur	9.53	8.24	2.79	21.88	-5.35	-88.70	482.55	-37.71	12.91	11.58	27.31	60.41
Satara	5.85	-28.29	14.49	-13.08	-9.92	-89.21	326.47	-58.54	19.57	23.73	50.51	93.11
Sangli	7.39	-10.20	5.39	1.64	-6.67	-88.51	440.54	-42.03	17.01	32.94	9.97	71.08
Kolhapur	-4.84	-25.52	25.48	-11.06	-14.86	-86.70	400.00	-43.40	16.69	21.91	16.14	65.23
MARATHWADA												
Aurangabad	16.99	10.12	2.69	32.31	-26.00	-95.12	924.19	-62.95	27.49	41.70	38.16	149.61
Parabhani	33.06	-16.59	10.71	22.87	-22.16	-96.25	767.07	-74.64	45.59	13.28	25.09	106.31
Beed	24.20	0.13	3.66	28.92	-11.17	-94.05	648.43	-60.40	42.82	27.99	22.81	124.52
Wanded	8.64	-19.76	20.09	4.70	-23.23	-96.23	1029.78	-67.29	27.60	20.21	36.22	108.97
Osmanabad	21.44	11.01	10.06	48.39	-9.26	-92.12	676.67	-44.42	30.54	23.81	28.68	107.98
VIDARBHA												
Buldhana	25.68	-12.83	18.20	29.44	-12.28	-93.20	720.19	-51.07	20.97	33.08	0.75	62.21
Akola	25.38	-8.87	13.61	29.81	-10.82	-93.35	858.40	-43.12	24.83	24.25	4.96	62.81
Amaravati	24.97	84.44	-43.21	29.76	-10.03	-93.65	929.87	-41.13	23.23	50.16	-5.33	75.20
Yavatmal	31.11	-3.39	15.08	45.79	-4.88	-93.21	771.22	-43.73	37.66	43.37	15.81	128.58
Wardha	27.14	-12.63	12.86	25.38	-15.68	-93.28	753.33	-51.66	28.67	23.37	7.30	70.34
Nagpur	18.18	-14.73	14.92	15.82	-20.66	-91.39	623.33	-50.57	26.12	21.71	7.36	64.81
Bhandara	0.96	-32.61	23.78	-15.78	-17.58	-92.39	583.33	-57.12	13.22	18.89	8.66	46.28
Chandrapur	19.61	-15.76	26.52	27.49	0.00	-92.65	774.07	-35.70	23.78	27.50	-17.09	30.85

i. Percentage change in the number of wholly owned marginal holdings:

During the period of 1970-71 to 1976-77, all the districts showed percentage increase in the number of wholly owned marginal holdings. The holdings increased above 100 per cent in Parbhani and Beed, from 50 to 100 percent in Ahmednagar, Aurangabad, Nanded and Osmanabad. In the remaining districts it was below 50 per cent.

During 1980-81 over 1976-77, the percentage increase was relatively more than that during the period 1970-71 to 1976-77. The drastic increase was observed in Yavatmal (1199.81 per cent), Wardha (378.96 per cent), Buldhana (306.45 per cent) (all from Vidarbha), Aurangabad (321.19 per cent), Osmanabad (333.46 per cent) districts of Marathwada. All the districts of Western Maharashtra, Marathwada and Vidarbha region showed decline in percentage during the period from 1980-81 to 1985-86. In Ratnagiri and Thana (Konkan region), the percentage increase was 13.17, 28.62 per cent during 1980-81 and 1985-86, respectively, as compared to the previous census years.

Considering the total period of 15 years (1970-71 to 1985-86), there was an increasing trend for all the districts, except Chandrapur. The increase was about 400 per cent in Aurangabad and Beed, followed by Parbhani and Yavatmal (above 300 per cent).

ii. Percentage change in the number of wholly owned small holdings:

Percentage change in the number of wholly owned small holdings showed an increase in all the districts of the state during the periods from 1970-71 to 1976-77, 1980-81 to 1985-86 (except Kulaba) and 1970-71 to 1985-86. During the period from 1976-77 to 1980-81, the percentage change in wholly owned small holdings was negative in Jalgaon, Pune, Satara, Sangli, Kolhapur (Western

Maharashtra), Buldhana, Akola, Amaravati, Bhandara and Chandrapur (Vidarbha). In the remaining districts there was a positive trend.

During 1970-71 to 1976-77, a substantial percentage increase was observed in Parbhani (108.06 per cent), Beed (88.16 per cent), Osmanabad (77.76 per cent), Nanded (65.59 per cent), Aurangabad (65.27 per cent) (all from Marathwada) and Yavatmal (96.95 per cent). In the remaining districts the percentage ranged from 9.04 per cent (Ratnagiri) to 48.91 per cent (Nagpur).

During the period from 1976-77 to 1980-81, a mixed trend was exhibited for the percentage change in the number of wholly owned small holdings. However, the change was below 50 per cent in both the cases positive as well as negative figures except Yavatmal. During 1980-81 to 1985-86, all the districts of Western Maharashtra, Marathwada and Vidarbha showed increase of more than 60 per cent. Considering this total period of 15 years, a substantial percentage increase was observed in Aurangabad (433.77 per cent), followed by Yavatmal (414.62 per cent).

**iii. Percentage change in the number
of wholly owned semi-medium holdings:**

The percentage change in the number of wholly owned semi-medium holdings was positive in all districts during the periods 1970-71 to 1976-77, 1970-71 to 1985-86. It was also positive for all the districts except Kulaba, Ratnagiri and Sangli during 1980-81 to 1985-86. During the period from 1976-77 to 1980-81, only Thana, Kulaba, Ratnagiri, Sangli, Aurangabad, Osmanabad and Yavatmal showed an increasing trend.

Considering the period of 4 censuses, percentage increase in the number of wholly owned semi-medium holdings was above 50 per cent in all districts except Kulaba, Ratnagiri, Kolhapur and Bhandara. A substantial increase was noted in Aurangabad (212.08 per cent) followed by Yavatmal (205.15 per cent).

iv. Percentage change in the number of wholly owned medium holdings:

The percentage change in the number of wholly owned medium holdings was positive in all the districts except Kolhapur during the period from 1970-71 to 1976-77. The increase ranged from 0.96 per cent (Bhandara) to 33.06 per cent (Parbhani).

During 1976-77 to 1980-81, the negative figures of per cent change in holdings were observed for all districts of Western Maharashtra except Solapur, all districts of Vidarbha except Amaravati and in Parbhani and Nanded district of Marathwada region.

During 1980-81 to 1985-86, the number of wholly owned medium holdings increased in all the districts except Ratnagiri, Dhule and Amaravati. The increase ranged from 2.69 per cent (Aurangabad) to 26.52 per cent (Chandrapur).

Considering the period of 4 censuses, all the districts of Marathwada, Konkan and Vidarbha (except Bhandara) showed increasing trend in the number of wholly owned medium holdings. Dhule, Jalgaon, Ahmednagar, Satara and Kolhapur districts of Western Maharashtra showed negative trend.

v. Percentage change in the number of wholly owned large holdings:

A marginal declining trend during the period from 1970-71 to 1976-77 and a substantial decline during 1976-77 to 1980-81 led to percentage decline in number of wholly owned large holdings by more than 80 per cent in majority of the districts. During 1980-81 to 1985-86 period, more than 300 per cent increase was noted in all the districts except Thana, Kulaba and Ratnagiri.

During 1976-77 to 1980-81 the number of wholly owned holdings declined by above 90 per cent in all districts of Marathwada, Vidarbha and Nasik, Dhule,

Jalgaon, Ahmednagar of Western Maharashtra. In the remaining districts of Western Maharashtra the decline was of the order of 86 to 90 per cent.

During the period from 1980-81 to 1985-86, there was an overall increase above 300 per cent in all districts of Western Maharashtra, above 600 per cent in Marathwada and above 500 per cent in Vidarbha region. In the districts of Konkan there was a decline by 16.40, 7.98 and 7.35 per cent in Thana, Kulaba and Ratnagiri districts, respectively.

Considering the total period of 15 years, (1970-71 to 1985-86), there was an overall decline in the number of wholly owned large holdings in all the districts of the State. The decline ranged from 8.13 per cent (Ratnagiri) to 74.64 per cent (Parbhani).

In summary, it can be seen that the number of wholly owned holdings showed an increasing trend at overall level during the period under study except Kulaba and Amaravati districts for the period from 1980-81 to 1985-86. There was substantial decline in the number of wholly owned marginal holdings in 1985-86 as compared to that in the preceding census year (1980-81) in all the districts except Thana and Ratnagiri where the existing marginal holdings were already on higher side. During the period from 1970-71 to 1985-86 the number of marginal small, semi-medium holdings in all districts and medium size class (except Dhule, Jalgaon, Ahmednagar, Satara, Kolhapur, Bhandara) showed increasing trend. The large holdings in this category showed a clear declining trend in all the districts. the proportionate share of below four hectares size groups ranged from 40 per cent to 95 per cent (1980-81 Kolhapur) and that of large size group showed a shrinkage, *i.e.*, less than one per cent for 1980-81 in all the districts except Thana, Kulaba, Ratnagiri and Solapur districts.

The number of wholly owned holdings was more than doubled in the districts of Marathwada, Dhule and Yavatmal during the period from 1970-71 to

1985-86. The number of marginal and small holdings in this category were quadrupled in the above districts. Medium holdings showed decline in Dhule, Jalgaon, Ahmednagar, Satara, Kolhapur (all from Western Maharashtra) and Bhandara district (Vidarbha). The large holdings declined by above 60 per cent in all the districts of Marathwada (except Osmanabad), Dhule and Yavatmal. This indicates that the process of diminution of wholly owned large holdings to form marginal and small holdings was higher in districts of Marathwada, Dhule and Yavatmal.

5.2.2 Changes in the Distribution of Area of Wholly Owned Holdings in Different Districts:

The distribution of area of wholly owned holdings by different size classes in different districts of Maharashtra during 4 census years is presented in Table 5.15 and discussed below by size classes of holdings.

i. Changes in the area of wholly owned marginal holdings:

The area of wholly owned marginal holdings was observed to be increasing in all the districts during the periods under consideration except the period from 1980-81 to 1985-86 with the exception of Thana and Ratnagiri districts.

During the 1970-71 census, the area of wholly owned marginal holdings ranged from 0.37 per cent (Yavatmal) to 11.93 per cent (Kolhapur). It ranged from 1.41 per cent (Yavatmal) to 19.40 per cent (Kolhapur) for 1985-86. As regards intermediate censuses, the area was more than doubled in Aurangabad in 1976-77 over 1970-71 and increased more than 25 times in Yavatmal during the period from 1976-77 to 1980-81. The area declined in 1985-86 as compared to 1980-81 by more than half to three fourth in all districts of Marathwada and Vidarbha.

Table 5.15 Distribution of the area of wholly owned holdings by size-classes in different districts of Maharashtra

(Area in thousand hectares)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	23.06 (6.80)	29.25 (7.72)	36.41 (9.00)	43.23 (10.48)	31.04 (9.16)	43.22 (11.41)	55.17 (13.64)	57.89 (14.04)	54.82 (16.18)	67.77 (17.90)	84.27 (20.83)	86.13 (20.89)
Kulaba	35.60 (11.53)	43.45 (12.85)	53.19 (14.74)	49.53 (14.59)	43.56 (14.11)	52.96 (15.67)	61.58 (17.06)	56.73 (16.71)	61.37 (19.88)	72.29 (21.39)	81.63 (22.62)	74.52 (21.95)
Ratnagiri	57.02 (5.92)	61.12 (7.33)	79.71 (7.09)	82.63 (7.63)	78.88 (8.18)	86.18 (10.32)	107.54 (9.57)	130.59 (12.06)	157.77 (16.37)	17.18 (2.06)	216.93 (19.30)	206.28 (19.06)
WESTERN MAHARASHTRA												
Nasik	18.93 (1.98)	23.73 (2.42)	117.63 (11.31)	43.48 (4.16)	52.06 (5.46)	65.61 (6.69)	110.72 (10.65)	125.62 (12.01)	150.04 (15.74)	182.24 (18.58)	237.01 (22.78)	266.94 (25.52)
Dhule	10.01 (1.45)	11.58 (1.63)	94.95 (12.49)	34.40 (4.62)	34.24 (4.98)	41.79 (5.88)	82.48 (10.86)	145.40 (19.51)	106.90 (15.53)	127.05 (17.89)	157.11 (20.67)	220.80 (29.63)
Jalgaon	23.21 (2.87)	25.38 (3.06)	32.48 (3.76)	45.14 (5.53)	78.59 (9.71)	89.09 (10.74)	109.92 (12.74)	165.46 (19.54)	169.45 (20.94)	194.92 (23.50)	312.31 (36.20)	256.25 (30.25)
Ahmednagar	22.38 (1.83)	33.37 (2.71)	182.86 (14.77)	84.77 (6.68)	59.34 (4.84)	88.07 (7.15)	162.58 (13.13)	225.39 (17.76)	167.87 (13.70)	230.04 (18.67)	264.60 (21.36)	386.07 (30.42)
Pune	35.67 (3.38)	43.39 (3.99)	165.95 (13.35)	68.83 (6.01)	70.66 (6.71)	86.96 (8.00)	125.22 (10.07)	142.36 (12.43)	167.79 (15.92)	195.64 (18.00)	343.60 (27.64)	275.06 (24.02)
Solapur	14.07 (1.16)	17.01 (1.37)	94.76 (7.80)	31.43 (2.49)	43.99 (3.62)	55.34 (4.47)	98.56 (8.12)	115.21 (9.12)	139.35 (11.48)	162.96 (13.15)	202.96 (16.72)	274.87 (21.76)
Satara	45.70 (6.76)	54.74 (7.54)	209.13 (27.45)	115.45 (14.55)	75.88 (11.23)	95.63 (13.18)	112.62 (14.78)	173.52 (21.87)	144.82 (21.43)	174.15 (24.00)	155.16 (20.37)	225.58 (28.43)
Sangli	32.49 (4.86)	39.86 (5.71)	141.58 (20.04)	71.44 (10.11)	59.02 (8.83)	72.90 (10.43)	86.88 (12.29)	113.84 (16.10)	118.70 (17.77)	139.55 (19.97)	136.88 (19.37)	180.96 (25.60)
Kolhapur	48.95 (11.93)	59.43 (13.79)	175.63 (36.43)	94.33 (19.40)	63.84 (15.56)	78.87 (18.31)	77.39 (16.05)	105.01 (21.60)	98.75 (24.07)	109.89 (25.50)	89.51 (18.57)	126.78 (26.08)
MARATHWADA												
Aurangabad	10.15 (0.88)	17.35 (1.48)	160.03 (11.19)	57.04 (3.92)	40.70 (3.42)	67.89 (5.77)	161.08 (11.26)	216.38 (14.86)	145.29 (12.23)	206.77 (17.58)	304.42 (21.29)	433.26 (29.76)
Parabhani	6.53 (0.71)	13.83 (1.38)	102.58 (10.04)	30.83 (3.39)	27.26 (2.97)	56.03 (5.61)	103.23 (10.10)	124.79 (13.69)	102.77 (11.18)	167.82 (16.79)	315.82 (30.90)	263.80 (28.95)
Beed	8.67 (1.11)	17.21 (1.91)	109.74 (11.73)	43.24 (4.72)	30.48 (3.89)	56.39 (6.26)	114.50 (12.24)	125.22 (13.68)	99.70 (12.73)	149.12 (16.54)	196.83 (21.05)	240.71 (26.29)
Wanded	10.36 (1.42)	17.50 (2.35)	106.01 (13.83)	39.81 (4.87)	34.34 (4.71)	55.23 (7.41)	100.96 (13.17)	133.15 (16.29)	113.41 (15.55)	149.59 (20.07)	181.25 (23.64)	255.29 (31.24)
Osmanabad	7.38 (0.64)	12.47 (1.02)	109.18 (8.50)	30.82 (2.27)	31.65 (2.75)	56.26 (4.58)	109.34 (8.51)	137.72 (10.16)	119.35 (10.36)	171.35 (13.96)	237.59 (18.49)	318.28 (23.48)
VIDARBHA												
Buldhana	14.56 (2.13)	16.66 (2.32)	126.79 (17.16)	28.65 (4.08)	46.88 (6.85)	60.34 (8.39)	97.94 (13.25)	101.25 (14.42)	100.96 (14.76)	129.95 (18.07)	157.37 (21.30)	175.81 (25.03)
Akola	15.74 (2.11)	19.82 (2.50)	135.94 (16.43)	31.72 (3.95)	49.31 (6.61)	69.28 (8.72)	108.17 (13.08)	110.45 (13.77)	109.47 (14.68)	144.32 (18.17)	159.61 (19.30)	192.60 (24.01)
Amaravati	21.42 (3.44)	25.46 (3.76)	155.52 (20.93)	39.73 (5.34)	57.77 (9.29)	80.18 (11.83)	105.77 (14.23)	147.61 (19.84)	107.97 (17.35)	141.65 (20.90)	159.02 (21.39)	183.56 (24.67)
Yavatmal	2.84 (0.37)	3.63 (0.48)	95.61 (10.67)	12.87 (1.41)	21.71 (2.86)	42.28 (5.12)	111.93 (12.49)	117.09 (12.80)	82.25 (10.84)	125.34 (15.19)	195.38 (21.80)	241.57 (26.40)
Wardha	4.25 (1.00)	6.77 (1.52)	57.09 (12.72)	11.48 (2.60)	20.09 (4.73)	29.77 (6.68)	53.68 (11.96)	54.46 (12.34)	59.42 (13.99)	81.13 (18.20)	94.26 (21.01)	115.05 (26.06)
Nagpur	8.90 (1.53)	12.39 (2.06)	88.08 (13.90)	20.73 (3.38)	31.30 (5.37)	46.54 (7.54)	81.05 (12.79)	88.18 (14.40)	91.55 (15.71)	123.14 (20.47)	138.25 (20.81)	156.42 (25.55)
Bhandara	40.06 (9.75)	47.58 (11.39)	156.18 (36.52)	69.49 (16.60)	64.05 (15.59)	73.05 (17.49)	67.42 (15.77)	100.09 (23.91)	101.74 (24.77)	109.60 (26.25)	81.25 (19.00)	115.45 (27.57)
Chandrapur	21.13 (3.61)	27.23 (4.13)	130.36 (18.35)	41.33 (5.73)	47.33 (8.09)	62.00 (9.40)	96.59 (13.60)	99.95 (13.85)	112.42 (19.22)	138.07 (20.93)	155.33 (21.87)	196.14 (27.17)

Table 5.15 (Continued....)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	104.85 (30.94)	118.75 (81.36)	125.57 (31.05)	138.56 (33.61)	125.10 (36.92)	119.67 (31.61)	103.03 (25.48)	86.48 (20.98)	338.87 (100.00)	378.66 (100.00)	404.45 (100.00)	412.29 (100.00)
Kulaba	82.17 (26.62)	89.35 (26.44)	97.85 (27.11)	100.76 (29.67)	86.03 (27.86)	79.94 (23.65)	66.66 (18.47)	58.00 (17.08)	308.73 (100.00)	337.99 (100.00)	360.91 (100.00)	339.54 (100.00)
Ratnagiri	317.60 (32.95)	322.28 (38.63)	373.84 (33.27)	362.88 (33.52)	352.63 (36.58)	347.58 (41.66)	345.83 (30.77)	300.11 (27.73)	963.90 (100.00)	834.34 (100.00)	1123.85 (100.00)	1082.49 (100.00)
WESTERN MAHARASHTRA												
Nasik	392.32 (41.15)	420.40 (42.87)	524.20 (50.39)	419.55 (40.11)	340.08 (35.67)	288.76 (29.44)	50.70 (4.87)	190.36 (18.20)	953.43 (100.00)	980.74 (100.00)	1040.26 (100.00)	1045.95 (100.00)
Dhule	320.46 (46.57)	350.07 (49.30)	408.78 (53.79)	274.94 (36.90)	216.53 (31.47)	179.66 (25.30)	16.65 (2.19)	69.60 (19.34)	888.14 (100.00)	710.15 (100.00)	759.97 (100.00)	745.14 (100.00)
Jalgaon	319.46 (39.49)	351.10 (42.26)	394.26 (45.70)	302.33 (35.69)	218.33 (26.99)	168.85 (20.36)	13.77 (1.60)	77.84 (9.19)	809.04 (100.00)	829.34 (100.00)	862.74 (100.00)	847.02 (100.00)
Ahmednagar	455.02 (37.13)	482.17 (39.14)	547.71 (44.22)	399.05 (31.45)	520.82 (42.50)	398.26 (32.33)	80.79 (6.52)	173.68 (13.69)	1225.43 (100.00)	1231.91 (100.00)	1238.54 (100.00)	1268.96 (100.00)
Pune	382.04 (36.25)	405.39 (37.29)	513.45 (41.30)	403.87 (35.27)	397.67 (37.74)	355.70 (32.72)	95.03 (7.64)	255.04 (22.27)	1053.83 (100.00)	1087.08 (100.00)	1243.25 (100.00)	1145.16 (100.00)
Solapur	429.03 (35.33)	463.92 (37.45)	711.84 (58.63)	503.51 (39.87)	587.73 (48.41)	539.60 (43.56)	106.03 (8.73)	337.99 (26.76)	1214.17 (100.00)	1238.83 (100.00)	1214.15 (100.00)	1263.01 (100.00)
Satara	239.65 (35.45)	247.90 (34.16)	247.54 (32.50)	199.34 (25.12)	169.88 (25.13)	153.22 (21.12)	37.33 (4.90)	79.55 (10.03)	675.93 (100.00)	725.64 (100.00)	761.78 (100.00)	793.44 (100.00)
Sangli	225.31 (33.72)	241.16 (34.51)	300.26 (42.49)	221.11 (31.28)	232.67 (34.82)	205.30 (29.38)	41.03 (5.81)	119.57 (16.91)	668.19 (100.00)	698.77 (100.00)	706.63 (100.00)	706.92 (100.00)
Kolhapur	128.25 (31.27)	119.37 (27.70)	118.69 (24.62)	111.83 (23.01)	70.41 (17.17)	63.35 (14.70)	20.86 (4.33)	48.17 (9.91)	410.20 (100.00)	430.91 (100.00)	482.08 (100.00)	486.12 (100.00)
MARATHWADA												
Aurangabad	469.06 (39.47)	530.29 (45.09)	773.78 (54.12)	573.60 (39.40)	522.98 (44.00)	353.83 (30.08)	30.57 (2.14)	175.53 (12.06)	1188.53 (100.00)	1176.13 (100.00)	1429.88 (100.00)	1455.81 (100.00)
Parabhani	353.03 (38.42)	452.90 (45.32)	479.97 (46.97)	396.32 (43.49)	429.25 (46.72)	308.81 (20.90)	20.37 (1.99)	95.47 (10.48)	918.84 (100.00)	999.39 (100.00)	1021.87 (100.00)	911.21 (100.00)
Beed	306.02 (39.08)	367.01 (40.71)	479.24 (51.25)	367.85 (40.18)	338.27 (43.19)	311.77 (34.58)	34.88 (3.73)	138.55 (15.13)	783.14 (100.00)	901.50 (100.00)	935.19 (100.00)	915.57 (100.00)
Wanded	337.36 (46.26)	353.65 (47.46)	366.71 (47.83)	318.87 (39.02)	233.74 (32.06)	169.27 (22.71)	11.77 (1.53)	70.06 (8.58)	729.21 (100.00)	745.24 (100.00)	766.70 (100.00)	817.18 (100.00)
Oswanabad	426.19 (37.00)	507.24 (41.31)	763.57 (59.43)	594.72 (43.87)	567.25 (49.25)	480.44 (39.13)	65.14 (5.07)	274.00 (20.22)	1151.82 (100.00)	1227.76 (100.00)	1284.76 (100.00)	1355.54 (100.00)
VIDARBHA												
Buldhana	224.14 (32.76)	278.03 (38.66)	330.83 (44.77)	279.35 (39.78)	297.58 (43.50)	234.16 (32.56)	26.05 (3.52)	117.19 (16.69)	684.12 (100.00)	719.14 (100.00)	738.98 (100.00)	702.25 (100.00)
Akola	252.65 (33.88)	316.07 (39.79)	394.86 (47.74)	314.92 (39.25)	318.50 (42.72)	244.81 (30.82)	28.51 (3.45)	152.60 (19.02)	745.67 (100.00)	794.30 (100.00)	827.09 (100.00)	802.29 (100.00)
Amaravati	207.29 (33.31)	256.53 (37.85)	302.12 (40.65)	261.43 (35.14)	227.79 (36.61)	173.94 (25.66)	20.83 (2.80)	111.72 (15.01)	622.24 (100.00)	677.76 (100.00)	743.26 (100.00)	744.05 (100.00)
Yavatmal	270.14 (35.59)	353.39 (42.81)	457.85 (51.09)	374.62 (40.94)	382.14 (50.34)	300.78 (36.44)	35.34 (3.95)	168.89 (18.45)	759.08 (100.00)	825.42 (100.00)	896.11 (100.00)	915.04 (100.00)
Wardha	157.35 (37.05)	197.74 (44.38)	227.38 (50.68)	188.25 (42.64)	183.60 (43.23)	129.74 (29.12)	16.30 (3.63)	72.21 (16.36)	424.71 (100.00)	445.55 (100.00)	448.71 (100.00)	441.45 (100.00)
Nagpur	229.48 (39.37)	265.44 (44.13)	301.54 (47.57)	254.65 (41.59)	221.62 (38.02)	154.02 (25.60)	24.92 (3.93)	92.31 (15.08)	582.85 (100.00)	601.53 (100.00)	633.84 (100.00)	612.29 (100.00)
Bhandara	129.11 (31.43)	129.60 (31.04)	114.65 (26.81)	105.08 (25.10)	75.80 (18.45)	57.75 (13.83)	8.12 (1.90)	28.57 (6.82)	410.76 (100.00)	417.58 (100.00)	427.62 (100.00)	418.68 (100.00)
Chandrapur	229.84 (39.29)	272.41 (41.30)	305.53 (43.01)	284.72 (39.45)	174.21 (29.79)	159.91 (24.24)	22.50 (3.17)	99.65 (13.80)	584.93 (100.00)	659.62 (100.00)	710.31 (100.00)	721.79 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the districts.

ii. Changes in the area of wholly owned small holdings:

The increasing trend was observed during the period of 4 censuses for the area of wholly owned small holdings in all districts except Kolhapur and Bhandara 1980-81 over 1976-77 and Kulaba in 1985-86 over 1980-81.

The proportionate share of small holdings in total wholly owned area showed an increasing trend in all districts except Kulaba, Kolhapur and Bhandara for the 4 censuses under consideration.

iii. Changes in the area of wholly owned semi-medium holdings:

A substantial change in the area of wholly owned semi-medium holdings was observed in Ratnagiri district. A continuous increasing trend in the area for the period of 4 censuses was observed in all the districts of Marathwada, Vidarbha (except Bhandara), Western Maharashtra (except Jalgaon, Pune, Satara, Sangli, Kolhapur) and only in Thana in Konkan region. During the period of 4 censuses (1970-71 to 1985-86) the area of semi-medium holdings increased to doubled in 1985-86 over 1970-71 in all the districts of Marathwada, Dhule district and nearly tripled in Yavatmal district.

The proportion of these holdings in the total area ranged from 10.36 per cent (Osmanabad) to 24.77 per cent (Bhandara) during 1970-71. In 1985-86, the same ranged from 19.06 per cent (Ratnagiri) to 31.24 per cent (Nanded).

iv. Changes in the area of wholly owned medium holdings:

Only in Thana and Kulaba districts, the area of wholly owned medium holdings showed continuous increasing trend while the remaining district indicated a mixed trend for the total period of four censuses. The area showed

a positive trend with few exceptions like Kolhapur (in 1976-77 over 1970-71), Satara, Kolhapur, Bhandara (in 1980-81 over 1976-77). In 1985-86, all the districts indicated a declining trend in the area as compared to that in 1980-81 except Thana and Kulaba. For the period of 15 years (*i.e.* 1985-86 over 1970-71) a positive trend in the area was observed in all the district of Konkan, Marathwada (except Nanded), Vidarbha (except Bhandara) and in Nasik, Pune and Solapur districts (Western Maharashtra).

The proportionate share in total area of these holdings was above 30 per cent in all the districts of the state except Kulaba during 1970-71, Kulaba and Kolhapur during 1976-77, Kulaba Kolhapur and Bhandara during 1980-81 and 1985-86.

v. Changes in the area of wholly owned large holdings:

The area of wholly owned large holdings indicated a declining trend during 1976-77, 1980-81 and 1985-86 as compared to 1970-71, 1976-77 and 1980-81, respectively. The area increased in 1985-86 as compared to that in 1980-81. The increase in the area was more than triple in all the districts of Marathwada, Vidarbha and Nasik, Dhule, Jalgaon and Solapur districts of Western Maharashtra.

The proportion of area of large holdings to the total ranged from 17.17 per cent (Kolhapur) to 50.34 per cent (Yavatmal) during 1970-71. It declined in 1976-77 ranging from 13.88 per cent (Bhandara) to 43.56 per cent (Solapur) and further declined during 1980-81 between 1.53 per cent (Nanded) and 8.73 per cent (Solapur) except Konkan. It again increased from 6.82 per cent (Bhandara) to 26.76 per cent (Solapur) during 1985-86.

In Thana, Kulaba and Ratnagiri districts, the area of large holdings showed a continuous declining trend for the period of four censuses under consideration.

An attempt has been made to estimate the percentage changes from one census to the next and for the period of 15 years. The results of the same are presented in Table 5.16 districtwise by size classes of holdings which are explained below by size classes.

i. Percentage change in the area of wholly owned marginal holdings:

The percentage change in the area indicated increasing trend during the periods under consideration (1970-71 to 1985-86) except in the period from 1980-81 to 1985-86.

The increase ranged from 7.19 per cent in Ratnagiri to 111.79 per cent in Parbhani during 1970-71 to 1976-77. In the next period, the largest increase was observed in Yavatmal (2533.88 per cent) followed by Aurangabad (822.36 per cent). In the districts of Marathwada and Vidarbha (except Bhandara and Chandrapur), the area increased over 500 per cent during 1976-77 to 1980-81. The declining trend in the area during 1980-81 to 1985-86 ranged over 60 per cent in Marathwada, over 70 per cent in Vidarbha (except Amaravati, Bhandara and Chandrapur districts).

Considering the total period of 15 years, the area increased in all the districts of the state. It was 400 per cent in Aurangabad, above 300 per cent in Parbhani, Beed and Osmanabad (Marathwada).

ii. Percentage change in the area of wholly owned small holdings:

The increasing trend in percentage change for the area of wholly owned small holdings during the period of four censuses was observed in all the

5.16 Percentage change in the area of wholly owned holdings by size-classes for different census periods in different districts of Maharashtra.

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	26.84	24.47	18.73	87.46	39.23	27.64	4.93	86.50	23.62	24.34	2.20	57.11
Kulaba	22.05	22.41	-6.89	39.12	21.57	16.27	-7.88	30.23	17.79	12.92	-8.72	21.42
Ratnagiri	7.19	30.41	3.66	44.91	9.25	24.78	21.43	65.55	-89.12	1162.28	-4.91	30.74
WESTERN MAHARASHTRA												
Nasik	25.35	395.70	-63.04	129.68	26.02	68.75	13.45	141.29	21.46	30.05	12.62	77.91
Dhule	15.68	719.94	-63.78	243.65	22.05	97.36	76.28	324.64	18.84	23.65	40.53	106.54
Jalgaon	9.34	27.97	38.97	94.48	13.36	23.38	50.52	110.53	15.03	60.22	-17.96	51.22
Ahmednagar	49.10	447.97	-53.64	278.77	48.41	84.60	38.63	279.83	37.03	15.02	45.90	129.98
Pune	21.64	282.46	-58.52	92.96	23.07	43.99	13.69	101.47	16.59	75.63	-19.95	63.93
Solapur	20.90	457.08	-66.83	123.38	25.80	78.09	16.89	161.90	16.94	24.55	35.43	97.25
Satara	19.78	282.04	-44.80	152.63	26.03	17.76	54.08	128.68	20.25	-10.90	45.38	55.77
Sangli	22.68	255.19	-49.54	119.88	23.52	19.18	31.03	92.88	17.56	-1.91	32.20	52.45
Kolhapur	21.40	195.52	-46.29	92.70	23.54	-1.88	35.68	64.48	11.28	-18.55	41.63	28.38
MARATHWADA												
Aurangabad	65.24	822.36	-64.36	443.24	66.80	137.26	34.33	431.64	42.32	47.22	42.32	198.20
Parabhani	111.79	641.72	-69.95	372.13	105.54	84.24	20.88	357.78	63.30	88.19	-16.47	156.69
Beed	98.50	537.65	-60.60	398.73	85.00	103.05	9.36	310.83	49.57	31.99	22.29	141.43
Nanded	68.92	505.77	-62.45	284.26	60.83	82.79	31.86	287.74	31.90	21.16	141.06	125.10
Osmanabad	68.97	575.54	-71.78	317.61	77.75	94.34	25.95	335.13	43.56	38.65	33.96	166.67
VIDARBHA												
Buldhana	14.42	661.04	-77.41	96.77	28.71	62.31	3.37	115.97	28.71	21.10	11.71	74.13
Akola	25.92	585.87	-76.67	101.52	40.49	56.13	2.10	123.99	31.83	10.59	20.66	75.93
Amaravati	18.86	510.84	-38.22	85.48	38.79	31.91	39.55	155.51	31.19	12.26	15.43	70.01
Yavatmal	27.81	2533.88	-86.54	353.16	94.74	164.73	4.61	439.33	52.38	55.88	23.64	193.70
Vardha	59.29	743.27	-79.90	170.11	48.18	80.31	1.45	171.08	36.53	16.18	22.05	93.62
Nagpur	39.21	610.89	-76.47	132.92	48.69	74.15	8.79	181.72	34.50	12.27	13.14	70.85
Bhandara	18.77	228.24	-55.51	73.46	14.05	-7.71	48.45	56.26	7.72	-25.87	42.09	13.47
Chandrapur	28.86	378.73	-68.30	95.59	30.99	55.79	3.43	111.17	22.81	12.50	26.27	74.47

Table 5.16 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	13.25	5.74	10.34	32.15	-4.35	-13.91	-16.07	-30.88	11.74	6.81	1.93	21.66
Kulaba	8.73	9.51	2.97	22.62	-7.08	-16.62	-12.99	-32.59	9.47	6.78	-5.93	9.97
Ratnagiri	1.47	15.99	-2.94	14.25	-1.44	-0.50	-13.22	-14.90	-13.45	34.69	-3.69	12.30
WESTERN MAHARASHTRA												
Nasik	7.15	24.69	-19.97	6.94	-15.10	-82.45	275.46	-44.03	2.86	6.06	0.54	9.70
Dhule	9.24	16.77	-32.75	-14.21	-17.03	-90.74	318.02	-67.85	3.19	7.01	-1.96	8.28
Jalgaon	9.90	12.29	-23.32	-5.36	-22.67	-91.85	465.29	-64.35	2.50	4.03	-1.83	4.69
Ahmednagar	5.96	13.59	-27.14	-12.30	-23.53	-79.72	114.98	-66.65	0.53	0.54	2.46	3.55
Pune	6.11	26.65	-21.34	5.71	-10.55	-73.28	168.38	-35.87	3.15	14.36	-7.89	8.67
Solapur	8.13	53.44	-29.27	17.36	-8.19	-80.35	218.77	-42.49	2.03	-1.99	4.02	4.02
Satara	3.44	-0.15	-19.47	-16.82	-9.81	-75.64	113.10	-53.17	7.35	4.98	4.16	17.38
Sangli	7.03	24.50	-26.36	-1.86	-11.76	-80.01	191.42	-48.61	4.57	1.12	0.04	5.79
Kolhapur	-6.92	-0.57	-5.78	-12.80	-10.03	-67.07	130.92	-31.59	5.05	11.87	0.84	15.51
MARATHWADA												
Aurangabad	13.05	45.92	-25.87	22.29	-32.35	-91.36	474.19	-66.44	-1.04	21.58	1.81	22.49
Parabhani	28.29	5.98	-17.43	12.26	-28.06	-93.40	368.68	-77.76	8.77	2.24	-10.82	-0.83
Beed	19.93	30.58	-23.24	20.20	-7.83	-88.81	297.22	-59.05	15.11	3.73	-2.10	16.91
Handed	4.83	3.69	-13.05	-5.49	-27.59	-93.05	495.24	-70.03	2.19	2.87	6.58	12.06
Oswanabad	19.01	50.52	-22.11	39.54	-15.31	-86.45	320.63	-51.70	6.59	4.64	5.50	17.68
VIDARBHA												
Buldhana	24.04	18.99	-15.57	24.63	-21.32	-88.88	349.86	-60.62	5.11	2.75	-4.98	2.65
Akola	25.10	24.92	-20.25	24.64	-23.14	-88.36	435.25	-52.09	6.52	4.12	3.00	7.59
Amaravati	23.75	17.77	-13.47	26.11	-23.65	-88.03	436.34	-50.96	8.92	9.66	0.10	19.57
Yavatmal	30.81	29.55	-18.18	38.67	-21.30	-88.26	377.90	-55.81	8.73	8.56	2.11	20.54
Wardha	25.66	14.98	-17.21	19.63	-29.34	-87.44	343.00	-60.63	4.90	0.70	-1.62	3.94
Nagpur	15.67	13.60	-15.56	10.96	-30.51	-83.83	270.42	-58.35	3.20	5.37	-3.40	5.05
Bhandara	0.37	-11.54	-8.35	-18.62	-23.82	-85.94	251.85	-62.31	1.66	2.40	-2.10	1.92
Chandrapur	18.52	12.15	-6.82	23.87	-8.21	-85.93	342.89	-42.80	12.76	7.68	1.61	23.39

districts, except Kolhapur and Bhandara (1976-77 to 1980-81) and Kulaba (1980-81 to 1985-86).

The percentage increase was in two digits in the majority of the districts (except Vidarbha excluding Amaravati and Bhandara) during 1980-81 to 1985-86. Considering the period of 15 years, the area increased above 400 per cent in Aurangabad and Yavatmal, above 300 per cent in Parbhani, Beed, Osmanabad (Marathwada).

iii. Percentage changes in the area of wholly owned semi-medium holdings:

Increasing percentage changes in the area of wholly owned semi-medium holdings during 4 census periods were observed in all the districts of Marathwada, Vidarbha, Nasik, Dhule, Ahmednagar, Solapur districts of Western Maharashtra and Thana districts of Konkan. The decline in the area was 89.12 per cent in Thana district during 1970-71 to 1976-77 and during 1976-77 to 1980-81 in Satara, Sangli, Kolhapur, Bhandara.

During the period of 15 years 1970-71 to 1985-86, the percentage increase in the area was above 100 in all the districts of Marathawada, Dhule, Ahmednagar from Western Maharashtra and Yavatmal from Vidarbha.

iv. Percentage change in the area of wholly owned medium holdings:

Only in Thana and Kulaba districts the trend in the area of wholly owned medium holdings was continuously increasing for the 4 censuses. In all the remaining districts the percentage of area declined during 1980-81 to 1985-86 and it ranged from 10 to 33 per cent except Ratnagiri, Kolhapur, Bhandara and Chandrapur. All the districts except Kolhapur during 1970-71 to 1976-77 and Satara, Kolhapur, Bhandara during 1976-77 to 1980-81 showed positive figures.

Considering the total period from 1970-71 to 1985-86 all the districts of Marathwada, except Nanded, all districts of Vidarbha except Bhandara, all districts of Konkan and Solapur (Western Maharashtra) showed increase above 10 per cent.

v. Percentage change in the area of wholly owned large holdings:

The area of large holdings showed a declining trend in all the districts excluding Konkan during the total period under consideration except 1980-81 to 1985-86. The substantial decline was observed during 1976-77 to 1980-81. It was of the order of 80 per cent in all the districts except Konkan region. Though the area increased by more than 100 to 500 per cent in districts of Western Maharashtra, Marathwada and Vidarbha during 1980-81 to 1985-86, it remained far below that in 1970-71.

Thus, the area of wholly owned holdings at the overall levels were observed to be increasing in all the districts except Parbhani during the period of 4 census years. The area of wholly owned marginal, small and semi-medium holdings in all the districts and medium holdings (except Dhule, Jalgaon, Ahmednagar, Satara, Sangli, Kolhapur, Nanded and Bhandara districts) showed increasing trend from 1970-71 to 1985-86. The marginal and medium size groups showed decline in the area during 1985-86 over that in 1980-81 for the same period large holdings gained in all districts except Konkan.

The proportion of area under wholly owned holdings below 4 hectares showed increasing trend 1980-81 as compared to previous census years and declining trend for medium and large holdings. The trend was reversed in 1985-86 as compared to that in 1980-81. During the period from 1970-71 to 1985-86, the proportionate area of wholly owned marginal, small and semi-medium holding increased and that under medium and large holdings declined. The area of

marginal and small holdings in the district of Marathwada, Dhule, Ahmednagar and Yavatmal was tripled while that under large holdings declined in the same districts during the period from 1970-71 to 1985-86. Therefore, it can be said that the area moved from bigger (large size) holdings to smaller ones.

5.2.3 Changes in the Distribution of Number of Wholly Rented Holdings in Different Districts:

The distribution of number of wholly rented holdings by different size classes in different districts of the state during 1970-71 to 1985-86 is presented in Table 5.17 and discussed below by the size classes of holdings.

i. Changes in the number of wholly rented marginal holdings:

The number of wholly rented marginal holding showed a declining trend during the 4 census periods under consideration in all the districts except Ahmednagar during 1970-71 to 1976-77, Sangli, Akola, Amaravati, Yavatmal, Nagpur, Chandrapur (during 1976-77 to 1980-81), Kulaba, Pune, Solapur, Parbhani (during 1980-81 to 1985-86). The number of holdings tripled in Parbhani, doubled in Nagpur and Pune during the respective periods mentioned above.

The number of holdings declined by more than two-thirds during the period of 15 years in all the districts except Solapur. The proportion of wholly rented marginal holdings were above 70 per cent in Kulaba, Ratnagiri and above 50 per cent in Thana, Kolhapur, Bhandara for the 4 censuses under consideration. In 1980-81, the proportion of this category of holdings ranged from 26.67 per cent (Wardha) to 85.71 per cent (Bhandara) with the exception of Solapur and Yavatmal districts.

Table 5.17 Distribution of the number of wholly rented holdings by size-classes in different district of Maharashtra

(Numbers in thousands)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	5.41 (56.83)	3.03 (59.29)	1.57 (57.93)	1.07 (59.78)	1.86 (19.54)	0.81 (15.85)	0.56 (20.66)	0.22 (12.29)	1.33 (13.97)	0.45 (8.81)	0.25 (9.23)	0.12 (6.70)
Kulaba	6.61 (72.56)	1.78 (78.41)	0.82 (75.23)	1.21 (80.67)	1.54 (16.90)	0.30 (13.22)	0.19 (17.43)	0.18 (12.00)	0.69 (7.57)	0.12 (5.29)	0.07 (6.42)	0.10 (6.67)
Ratnagiri	9.67 (73.04)	4.40 (73.58)	3.55 (81.05)	2.79 (53.86)	1.49 (11.25)	0.74 (12.37)	0.41 (9.36)	0.70 (13.51)	1.11 (8.38)	0.53 (8.86)	0.30 (6.85)	0.84 (16.22)
WESTERN MAHARASHTRA												
Nasik	0.98 (28.40)	0.69 (27.49)	0.17 (36.17)	0.14 (20.89)	0.70 (20.29)	0.48 (19.12)	0.08 (17.02)	0.10 (14.93)	0.96 (27.83)	0.65 (25.90)	0.12 (25.53)	0.26 (38.81)
Dhule	0.71 (19.56)	0.16 (19.05)	0.09 (27.27)	0.08 (16.33)	0.60 (16.53)	0.12 (14.28)	0.07 (21.21)	0.20 (40.82)	1.03 (28.37)	0.19 (22.62)	0.07 (21.21)	0.12 (24.49)
Jalgaon	0.56 (19.86)	0.38 (24.52)	0.08 (29.63)	0.02 (6.25)	0.86 (30.50)	0.41 (26.45)	0.05 (18.52)	0.10 (31.25)	0.79 (28.01)	0.43 (27.74)	0.09 (33.33)	0.16 (50.00)
Ahmednagar	0.95 (19.47)	1.23 (27.64)	0.75 (70.09)	0.20 (13.79)	1.11 (22.75)	1.17 (26.29)	0.18 (16.82)	0.35 (24.14)	1.39 (28.48)	1.43 (32.14)	0.14 (13.09)	0.70 (48.28)
Pune	1.35 (30.54)	0.83 (36.73)	0.19 (57.58)	0.41 (48.24)	0.88 (19.91)	0.34 (15.04)	0.03 (9.09)	0.18 (21.18)	0.96 (21.72)	0.49 (21.68)	0.08 (24.24)	0.16 (18.82)
Solapur	0.38 (11.76)	0.37 (10.48)	0.10 (14.92)	0.19 (12.84)	0.52 (16.10)	0.60 (17.00)	0.34 (50.75)	0.32 (21.62)	0.73 (22.60)	0.80 (22.66)	0.08 (11.94)	0.29 (19.59)
Satara	1.01 (46.98)	0.62 (45.25)	0.42 (68.85)	0.23 (53.49)	0.40 (18.60)	0.24 (17.52)	0.09 (14.75)	0.09 (20.93)	0.35 (16.28)	0.25 (18.25)	0.06 (09.84)	0.05 (11.63)
Sangli	0.59 (33.71)	0.20 (25.97)	0.28 (77.78)	0.21 (72.41)	0.45 (25.72)	0.17 (22.08)	0.04 (11.11)	0.05 (17.24)	0.34 (19.43)	0.18 (23.38)	0.04 (11.11)	0.01 (3.45)
Kolhapur	6.86 (54.66)	6.00 (60.48)	2.71 (74.04)	1.57 (62.06)	2.24 (17.85)	1.52 (15.32)	0.42 (11.48)	0.28 (11.07)	1.76 (14.02)	1.31 (13.21)	0.24 (6.56)	0.39 (15.41)
MARATHWADA												
Aurangabad	1.18 (14.17)	1.43 (15.31)	1.20 (44.61)	0.28 (26.67)	1.65 (19.81)	2.10 (22.48)	0.42 (15.62)	0.33 (31.43)	2.44 (29.29)	3.02 (32.34)	0.58 (21.56)	0.13 (12.38)
Parabhani	1.13 (13.37)	0.64 (19.63)	0.02 (50.00)	0.06 (22.22)	1.57 (18.58)	0.73 (22.39)	-	0.02 (7.41)	2.40 (28.40)	0.93 (28.53)	0.01 (25.00)	0.09 (33.33)
Beed	0.79 (16.39)	0.52 (17.93)	0.42 (53.85)	0.07 (21.87)	0.90 (18.67)	0.72 (24.83)	0.16 (20.51)	0.06 (18.75)	1.26 (26.14)	0.65 (22.41)	0.13 (16.67)	0.06 (18.75)
Nanded	1.25 (19.23)	0.90 (16.33)	0.17 (42.50)	0.06 (16.67)	1.41 (21.69)	1.20 (21.78)	0.11 (27.50)	0.04 (11.11)	1.85 (28.46)	1.85 (33.58)	0.11 (27.50)	0.11 (30.55)
Osmanabad	0.76 (11.31)	0.44 (13.09)	0.27 (32.93)	0.08 (30.77)	1.25 (18.60)	0.66 (19.64)	0.15 (18.29)	0.05 (19.23)	1.80 (26.79)	0.98 (29.17)	0.16 (19.51)	0.07 (26.92)
VIDARBHA												
Buldhana	0.59 (16.71)	0.39 (19.31)	0.32 (51.61)	0.18 (16.82)	0.92 (26.06)	0.66 (32.67)	0.08 (12.90)	0.28 (26.17)	1.02 (28.90)	0.52 (25.74)	0.14 (22.58)	0.30 (28.04)
Akola	0.62 (13.75)	0.35 (13.46)	0.57 (34.76)	0.20 (18.02)	0.86 (19.07)	0.65 (25.00)	0.23 (14.02)	0.23 (20.72)	1.10 (24.39)	0.68 (26.15)	0.25 (15.24)	0.22 (19.82)
Amaravati	1.26 (17.52)	0.62 (19.50)	0.81 (39.51)	0.21 (16.41)	1.84 (25.59)	0.79 (24.84)	0.38 (18.54)	0.41 (32.03)	2.07 (28.79)	0.86 (17.04)	0.43 (20.97)	0.32 (25.00)
Yavatmal	0.34 (3.09)	0.24 (2.93)	1.02 (19.47)	0.08 (3.57)	0.95 (8.63)	1.15 (14.06)	0.78 (14.89)	0.38 (16.96)	2.57 (23.34)	2.27 (27.75)	1.32 (25.19)	0.73 (31.59)
Wardha	0.15 (11.54)	0.07 (23.33)	0.04 (26.67)	0.01 (7.69)	0.26 (20.00)	0.06 (20.00)	0.03 (20.00)	0.03 (23.08)	0.39 (30.00)	0.07 (23.23)	0.04 (26.67)	0.03 (23.08)
Nagpur	0.28 (14.51)	0.08 (8.89)	0.16 (47.06)	0.01 (11.11)	0.42 (21.76)	0.18 (20.00)	0.04 (11.76)	0.03 (33.34)	0.60 (31.09)	0.26 (28.89)	0.08 (23.53)	0.02 (22.22)
Bhandara	0.41 (56.94)	0.30 (65.50)	0.18 (85.71)	0.06 (66.67)	0.16 (22.22)	0.09 (18.75)	0.03 (14.29)	0.02 (22.22)	0.09 (12.50)	0.05 (10.42)	-	0.01 (11.11)
Chandrapur	5.88 (38.94)	2.69 (32.88)	3.08 (74.22)	0.17 (26.56)	3.99 (26.44)	1.94 (23.72)	0.48 (11.57)	0.10 (15.62)	3.46 (22.93)	2.00 (24.45)	0.40 (9.64)	0.19 (29.69)

Table 5.17 (Continued....)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	0.73 (7.67)	0.58 (11.35)	0.27 (9.96)	0.18 (10.06)	0.19 (1.99)	0.24 (4.70)	0.06 (2.22)	0.20 (11.17)	9.52 (100.00)	5.11 (100.00)	2.71 (100.00)	1.79 (100.00)
Kulaba	0.23 (2.53)	0.06 (2.64)	0.01 (0.92)	0.01 (0.66)	0.04 (0.44)	0.01 (0.44)	-	-	9.11 (100.00)	2.27 (100.00)	1.09 (100.00)	1.50 (100.00)
Ratnagiri	0.78 (5.89)	0.26 (4.35)	0.09 (2.05)	0.59 (11.39)	0.19 (1.44)	0.05 (0.84)	0.03 (0.69)	0.26 (5.02)	13.24 (100.00)	5.98 (100.00)	4.38 (100.00)	5.18 (100.00)
WESTERN MAHARASHTRA												
Nasik	0.69 (20.00)	0.60 (23.90)	0.10 (21.28)	0.16 (23.88)	0.12 (3.48)	0.09 (3.59)	-	0.01 (1.49)	3.45 (100.00)	2.51 (100.00)	0.47 (100.00)	0.67 (100.00)
Dhule	1.14 (31.41)	0.35 (41.67)	0.10 (30.31)	0.06 (12.24)	0.15 (4.13)	0.02 (2.38)	-	0.03 (6.12)	3.63 (100.00)	0.84 (100.00)	0.33 (100.00)	0.49 (100.00)
Jalgaon	0.52 (18.44)	0.29 (28.71)	0.05 (18.52)	0.04 (12.50)	0.09 (3.19)	0.04 (2.58)	-	-	2.82 (100.00)	1.55 (100.00)	0.27 (100.00)	0.32 (100.00)
Ahmednagar	1.14 (23.36)	0.53 (11.91)	-	0.14 (9.65)	0.29 (5.94)	0.09 (2.02)	-	0.06 (4.14)	4.88 (100.00)	4.45 (100.00)	1.07 (100.00)	1.45 (100.00)
Pune	0.97 (21.95)	0.43 (19.03)	0.03 (9.09)	0.07 (8.23)	0.26 (5.88)	0.17 (7.52)	-	0.03 (3.53)	4.42 (100.00)	2.26 (100.00)	0.33 (100.00)	0.85 (100.00)
Solapur	1.01 (31.27)	1.20 (33.99)	0.15 (22.39)	0.51 (34.46)	0.59 (18.27)	0.56 (15.87)	-	0.17 (11.49)	3.23 (100.00)	3.53 (100.00)	0.67 (100.00)	1.48 (100.00)
Satara	0.29 (13.49)	0.18 (13.41)	0.04 (6.56)	-	0.10 (4.65)	0.08 (5.84)	-	0.06 (13.95)	2.15 (100.00)	1.37 (100.00)	0.61 (100.00)	0.43 (100.00)
Sangli	0.28 (16.00)	0.15 (19.48)	-	0.01 (3.45)	0.09 (5.14)	0.77 (9.09)	-	0.01 (3.45)	1.75 (100.00)	0.77 (100.00)	0.36 (100.00)	0.29 (100.00)
Kolhapur	1.32 (10.52)	0.88 (8.87)	0.26 (7.10)	0.21 (8.30)	0.37 (2.95)	0.21 (2.12)	0.03 (0.82)	0.08 (3.16)	12.55 (100.00)	9.92 (100.00)	3.66 (100.00)	2.53 (100.00)
MARATHWADA												
Aurangabad	2.34 (28.89)	2.24 (23.98)	0.48 (17.84)	0.25 (23.81)	0.72 (8.64)	0.55 (5.89)	0.01 (0.37)	0.06 (5.71)	8.33 (100.00)	9.34 (100.00)	2.69 (100.00)	1.05 (100.00)
Parabhani	2.50 (29.59)	0.76 (23.31)	0.01 (25.00)	0.07 (25.93)	0.85 (10.06)	0.20 (6.14)	-	0.03 (11.11)	8.45 (100.00)	3.26 (100.00)	0.04 (100.00)	0.27 (100.00)
Beed	1.37 (28.42)	0.76 (26.21)	0.07 (8.97)	0.08 (25.00)	0.50 (10.38)	0.25 (8.62)	-	0.05 (15.63)	4.82 (100.00)	2.90 (100.00)	0.78 (100.00)	0.32 (100.00)
Wanded	1.68 (25.85)	1.42 (25.77)	0.01 (2.50)	0.13 (36.11)	0.31 (4.75)	0.14 (2.54)	-	0.02 (5.56)	6.50 (100.00)	5.51 (100.00)	0.40 (100.00)	0.36 (100.00)
Oswanabad	2.06 (30.65)	0.98 (29.17)	0.23 (28.05)	0.05 (19.23)	0.85 (12.65)	0.30 (8.93)	0.01 (1.22)	0.01 (3.85)	6.72 (100.00)	3.36 (100.00)	0.82 (100.00)	0.26 (100.00)
VIDARBHA												
Buldhana	0.80 (22.66)	0.40 (19.80)	0.07 (11.29)	0.28 (26.17)	0.20 (5.67)	0.05 (2.48)	0.01 (1.62)	0.03 (2.80)	3.53 (100.00)	2.02 (100.00)	0.62 (100.00)	1.07 (100.00)
Akola	1.38 (36.60)	0.68 (26.15)	0.59 (36.98)	0.35 (31.53)	0.55 (12.19)	0.24 (9.24)	-	0.11 (9.91)	4.51 (100.00)	2.60 (100.00)	1.64 (100.00)	1.11 (100.00)
Amaravati	1.66 (23.09)	0.72 (22.64)	0.42 (20.49)	0.27 (21.09)	0.36 (5.01)	0.19 (5.98)	0.01 (0.49)	0.07 (5.47)	7.19 (100.00)	3.18 (100.00)	2.05 (100.00)	1.28 (100.00)
Yavatmal	5.30 (48.14)	3.52 (43.03)	2.08 (39.69)	0.87 (38.84)	1.85 (16.80)	1.00 (12.23)	0.04 (0.76)	0.18 (8.04)	11.01 (100.00)	8.18 (100.00)	5.24 (100.00)	2.24 (100.00)
Wardha	0.39 (30.00)	0.08 (26.67)	0.04 (26.66)	0.04 (30.77)	0.11 (8.46)	0.02 (6.67)	-	0.02 (15.38)	1.30 (100.00)	0.30 (100.00)	0.15 (100.00)	0.13 (100.00)
Wagpur	0.54 (27.98)	0.29 (32.22)	0.06 (17.65)	0.02 (22.22)	0.09 (46.66)	0.09 (10.00)	-	0.01 (11.11)	1.93 (100.00)	0.90 (100.00)	0.34 (100.00)	0.09 (100.00)
Bhandara	0.05 (6.95)	0.04 (8.33)	-	-	0.01 (1.39)	-	-	-	0.72 (100.00)	0.48 (100.00)	0.21 (100.00)	0.09 (100.00)
Chandrapur	1.62 (10.73)	1.39 (17.00)	0.19 (4.57)	0.15 (23.44)	0.14 (0.93)	0.16 (1.95)	-	0.03 (4.69)	15.09 (100.00)	8.18 (100.00)	4.15 (100.00)	0.64 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the districts.

ii. Changes in the number of wholly rented small holdings:

The number of wholly rented small holdings showed a similar trend as noted in the marginal holdings. The increasing trend observed in Solapur, Aurangabad and Yavatmal districts (1970-71 to 1976-77) and Ratnagiri, all the districts of Western Maharashtra (excluding Solapur, Kolhapur), Buldhana, Amaravati districts during the period from 1980-81 to 1985-86.

In all the districts of the state, the wholly rented small holdings declined by more than two-third during the period of 15 years (1970-71 to 1985-86) except Ratnagiri and Solapur.

iii. Changes in the number of wholly rented semi-medium holdings:

The number of wholly rented holdings showed a declining trend upto 1980-81 in all the districts with exceptions of Ahmednagar, Solapur, Aurangabad and Nanded districts during 1976-77 over 1970-71. In 1985-86, all the districts of Western Maharashtra (excluding Satara, Sangli), Ratnagiri, Parbhani and Buldhana showed increased trend over 1980-81. The absolute number of holdings in 1985-86 varied from 10 (Sangli and Bhandara) to 840 (Ratnagiri).

iv. Changes in the number of wholly rented medium holdings:

In Ahmednagar, Sangli and Bhandara during 1980-81 and Satara and Bhandara 1985-86, the number of wholly rented medium holdings were nil. All the districts except Solapur showed decline in 1976-77. Thana, Dhule, Jalgaon, Kolhapur, Aurangabad, Osmanabad, Akola, Amaravati, Yavatmal, Nagpur, Chandrapur districts showed decline in the number of holdings during 1985-86 as compared to previous census years.

The proportion of medium holdings in the total in this category in 1970-71 ranged from 10.52 per cent (Kolhapur) to 48.14 per cent (Yavatmal) excluding districts of Konkan region and Bhandara districts of Vidarbha. It was 3.45 per cent (Sangli) to 38.84 per cent (Yavatmal) in 1985-86.

v. Changes in the number of wholly rented large holdings:

The number of wholly rented large holdings were less than 850 (Osmanabad) in 1970-71 and less than 560 (Solapur) in 1976-77 for all districts of the State except Yavatmal. During 1980-81, the number of wholly rented large holdings were 60, 40, 30 and 30 in Thana, Yavatmal, Ratnagiri and Kolhapur, respectively. The trend of this category of holdings was found to be declining in all districts during the period of 4 census years under study.

Thus, the number of wholly rented holdings in all the five size classes (except large size group in Thana and Ratnagiri district) in all the districts showed a decline during successive census periods. The number of wholly rented holdings at the overall level were reduced to less than 100 in Nagpur and Bhandara and less than 1000 in all districts except the districts of Konkan region, Ahmednagar, Solapur, Kolhapur (Western Maharashtra), Aurangabad (Marathwada), Buldhana, Akola, Amaravati and Yavatmal (Vidarbha). Absentee landlordism prevalent on large scale in the past was significantly reduced due to Tenancy Acts and many lands of such landlords went to the tenants. However, it is said that the concealed tenancy is still prevalent in different forms which needs to be probed.

An attempt was made to calculate the percentage change in the number of holdings of this category and the results are presented in Table 5.18 and discussed below by size classes of holdings.

Table 5.18 Percentage changes in the number of wholly rented holdings by size-classes for different census periods in different districts of Maharashtra.

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	-43.99	-48.18	-31.85	-80.22	-56.45	-30.86	-60.71	-88.17	-66.16	-44.44	-52.00	-90.98
Kulaba	-73.07	-53.93	47.56	-81.69	-80.52	-36.66	-5.26	-88.31	-82.61	-41.67	-42.85	-85.50
Ratnagiri	-54.49	-19.31	-21.40	-71.14	-50.33	-44.59	70.73	-53.02	-52.25	-43.39	180.00	-24.32
WESTERN MAHARASHTRA												
Nasik	-29.59	-75.36	-17.64	-85.71	-31.42	-83.33	25.00	-85.71	-32.29	-81.53	116.66	-72.91
Dhule ^o	-77.46	-43.75	-11.11	-88.73	-80.00	-41.66	185.71	-66.66	-81.55	-63.15	71.42	-88.34
Jalgaon	-32.14	-78.94	-75.00	-96.43	-52.32	-87.80	100.00	-88.37	-45.56	-75.06	77.77	-79.74
Ahmednagar	29.47	-39.02	-73.33	-78.94	5.40	-84.61	94.44	-68.46	2.88	-90.20	400.00	-49.64
Pune	-38.51	-77.10	115.78	-69.62	-61.36	-91.18	500.00	-79.54	-48.95	-83.67	100.00	-83.33
Solapur	-2.63	-72.97	90.00	-50.00	15.38	-43.33	-5.88	-38.46	9.59	-90.00	262.50	-60.27
Satara	-38.61	-32.25	-45.23	-77.22	-40.00	-62.50	-	-77.50	-28.57	-76.00	-16.66	-85.71
Sangli	-66.10	40.00	-25.00	-64.40	-62.22	-76.47	25.00	-88.88	-47.05	-77.77	-75.00	-97.06
Kolhapur	-12.53	-54.93	-42.06	-77.11	-32.14	-72.36	-33.33	-87.50	-25.56	-81.67	62.50	-77.84
MARATHWADA												
Aurangabad	21.18	-16.08	-76.66	-76.27	27.27	-80.00	-21.42	-80.00	23.77	-80.79	-77.58	-94.67
Parabhani	-43.36	-96.88	200.00	-94.69	-53.50	-	-	-98.73	-61.25	-98.92	800.00	-96.25
Beed	-34.17	-19.23	-83.33	-91.13	-20.00	-77.77	-62.50	-93.33	-48.41	-80.00	-53.84	-95.23
Wanded	-28.00	-81.11	-64.70	-95.20	-14.89	-90.83	-63.63	-97.16	-	-94.05	-	-94.05
Osmanabad	-42.10	-38.63	-70.37	-89.47	-47.20	-77.27	-66.66	-96.00	-45.55	-93.87	-56.25	-96.11
VIDARBHA												
Buldhana	-33.99	-17.94	-43.75	-69.49	-28.26	-87.87	250.00	-69.56	-49.01	-73.07	114.28	-70.58
Akola	-43.54	62.85	-64.91	-67.74	-24.41	-64.61	-	-73.25	-38.18	-63.23	-12.00	-80.00
Amaravati	-50.79	30.64	-74.07	-83.33	-57.06	-51.89	7.89	-77.71	-58.45	-50.00	-25.58	-84.54
Yavatmal	-29.41	325.00	-92.15	-76.47	21.05	-32.17	-51.28	-60.00	-11.67	-41.85	-44.69	-71.59
Wardha	-53.33	-42.95	-75.00	-93.33	-76.92	-50.00	-	-88.46	-82.05	-42.85	-25.00	--92.30
Wagpur	-71.42	100.00	-93.75	-96.42	-57.14	-77.77	-25.00	-92.85	-56.66	-69.23	-75.00	-96.66
Bhandara	-26.92	-40.00	-66.66	-85.36	-43.75	-66.66	-33.33	-87.50	-44.44	-	-	-88.88
Chandrapur	-54.25	14.49	-94.48	-97.11	-51.27	-75.25	-79.17	-97.49	-42.19	-80.00	-52.50	-94.50

Table 5.18 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	-20.54	-53.44	-33.33	-75.34	26.31	-75.00	233.33	5.26	-46.32	-46.96	-33.94	-81.19
Kulaba	-73.91	-83.33	-	-95.65	-75.00	-100.00	-	-100.00	-75.08	-51.98	37.61	-83.53
Ratnagiri	-66.66	-65.38	555.55	-24.35	-73.68	-40.00	766.66	36.84	-54.83	-26.58	18.26	-60.87
WESTERN MAHARASHTRA												
Nasik	-13.04	-83.33	60.00	-76.81	-25.00	-100.00	-	-91.66	-27.24	-81.27	42.55	-80.57
Dhule	-69.29	-71.42	-40.00	-94.73	-86.67	-100.00	-	-80.00	-76.85	-60.71	48.48	-86.50
Jalgaon	-44.23	-82.75	-20.00	-92.30	-55.55	-100.00	-	-	-45.03	-82.58	18.51	-88.65
Ahmednagar	-53.50	-100.00	-	-87.71	-68.96	-100.00	-	-79.31	-8.81	-75.95	35.51	-70.28
Pune	-55.67	-93.02	133.33	-92.78	-34.61	-100.00	-	-88.46	-48.86	-85.39	157.57	-80.76
Solapur	18.81	-87.50	240.00	-49.50	-5.08	-100.00	-	-71.18	9.28	-81.01	120.89	-54.17
Satara	-37.93	-77.77	-100.00	-100.00	-20.00	-100.00	-	-40.00	-36.27	-55.47	-29.50	-80.00
Sangli	-46.42	-100.00	-	-96.42	-22.22	-100.00	-	-88.88	-56.00	-53.24	-19.44	-83.42
Kolhapur	-33.33	-70.45	-19.23	-84.09	-43.24	-85.71	166.67	-78.37	-20.95	-63.10	-30.87	-79.84
KARATHWADA												
Aurangabad	-4.27	-78.57	-47.91	-89.31	-23.61	-98.18	500.00	-91.66	12.12	-71.19	-60.96	-87.39
Parabhani	-69.60	-98.68	600.00	-97.20	-76.47	-	-	-96.47	-61.42	-98.77	575.00	-96.80
Beed	-44.52	-90.78	14.28	-94.16	-50.00	-100.00	-	-90.00	-39.83	-73.10	-58.97	-93.36
Wanded	-15.47	-99.30	1200.00	-92.26	-54.83	-100.00	-	-93.54	-15.23	-92.74	-10.00	-94.46
Osmanabad	-52.42	-76.53	-78.26	-97.57	-64.70	-96.66	-	-98.82	-50.00	-75.59	-68.29	-96.13
VIDARBHA												
Buldhana	-50.00	-82.50	200.00	-65.00	-75.00	-80.00	200.00	-85.00	-42.77	-69.30	72.58	-69.68
Akola	-50.72	-13.23	-40.67	-74.63	-56.36	-	-	-80.00	-42.35	-36.92	-32.31	-75.38
Anaravati	-56.62	-41.66	-35.71	-83.73	-47.22	-94.74	600.00	-80.55	-55.77	-35.53	-37.56	-82.19
Yavatmal	-33.58	-40.90	-58.17	-83.58	-45.94	-96.00	350.00	-90.27	-25.70	-35.94	-57.25	-79.65
Wardha	-79.49	-50.00	-	-89.74	-81.81	-	-	-81.81	-76.92	-50.00	-13.33	-90.00
Nagpur	-46.29	-79.31	-66.66	-96.29	-	-100.00	-	-88.88	-53.36	-62.22	-73.52	-95.33
Bhandara	-20.00	-100.00	-	-	-100.00	-	-	-100.00	-33.33	-56.25	-57.14	-87.50
Chandrapur	-14.19	-86.33	-21.05	-90.74	14.28	-100.00	-	-78.57	-45.79	-49.26	-84.57	-95.75

i. Percentage change in the number of wholly rented marginal holdings:

Uninterrupted declining trend in the number of wholly rented marginal holdings during the period of 4 censuses was seen in all the districts except Ahmednagar, Sangli, Amaravati, Yavatmal, Kulaba, Pune, Solapur and Parbhani. Considering the period of 15 years (1970-71 to 1985-86), the percentage decline over 90 per cent was observed in Jalgaon, Parbhani, Beed, Nanded, Wardha, Nagpur and Chandrapur districts.

ii. Percentage change in the number of wholly rented small holdings:

Few districts like Ahmednagar, Aurangabad, Yavatmal during the period from 1970-71 to 1976-77, all districts of Western Maharashtra (except Solapur and Kolhapur during 1980-81 to 1985-86), Ratnagiri, Buldhana, Amaravati showed increase in the percentage of number of wholly rented small holdings. Considering the total period of 15 years, all the districts of the state showed negative figures. The decline ranged from 53.02 per cent (Ratnagiri) to 98.73 per cent (Parbhani). Solapur was exception to this.

iii. Percentage change in the number of wholly rented semi-medium holdings:

The number of wholly rented semi-medium holdings showed similar patten of change, i.e., declining percentage in all districts of the state with few exceptions like Ahmednagar, Solapur, Aurangabad, Nanded during 1970-71 to 1976-77 and in Parbhani, Nanded, Buldhana, Bhandara, Ratnagiri districts during 1980-81 to 1985-86. Considering the period from 1976-77 to 1980-81 and 1970-71 to 1985-86, all the districts showed a declining percentage number of wholly rented medium holdings.

iv. Percentage change in the number of wholly rented medium holdings:

A declining trend in the percentage number of wholly rented medium holdings during the period under reference was more in this size class as compared to that in marginal, small and semi-medium holdings. The decline was 100 per cent in Ahmednagar, Sangli, Bhandara during the period from 1976-77 to 1980-81 and Satara during 1980-81 to 1985-86.

Considering the period of 15 years, the decline was above 90 per cent in Marathwada region (except Aurangabad), above 80 per cent in Vidarbha (except Buldhana and Akola) and above 70 per cent in Western Maharashtra (except Solapur).

v. Percentage change in the number of wholly rented large holdings:

The number of wholly rented large holdings showed sharp declining trend during the period from 1976-77 to 1980-81. All the districts of Western Maharashtra (except Kolhapur), Kulaba, Beed, Nanded, Nagpur, Chandrapur, showed 100 per cent decline in number of large holdings.

5.2.4 Changes in the Distribution of Area of Wholly Rented Holdings in Different Districts:

The distribution of the area of wholly rented holdings by different size classes in different districts of Maharashtra during the 4 census years is presented in Table 5.19 and explained below by size classes of holdings.

i. Changes in the area of wholly rented marginal holdings:

The area of wholly rented marginal holdings were observed to be declining during the period of 4 censuses under study. During 1970-71, the area was in

Table 5.19 Distribution of the area of wholly rented holdings by size-classes in different district of Maharashtra

(Area in thousand hectares)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	2.37 (14.58)	1.09 (8.21)	0.62 (13.51)	0.40 (6.86)	2.63 (16.19)	1.17 (8.82)	0.72 (15.69)	0.33 (5.66)	3.69 (22.71)	1.32 (9.95)	0.67 (14.60)	0.31 (5.32)
Kulaba	2.76 (30.56)	0.72 (36.55)	0.33 (39.29)	0.45 (44.56)	2.12 (23.48)	0.40 (20.30)	0.28 (33.33)	0.25 (24.75)	1.86 (20.60)	0.32 (16.24)	0.19 (22.62)	0.28 (27.72)
Ratnagiri	2.72 (16.79)	1.27 (20.32)	1.14 (31.32)	0.80 (2.87)	2.11 (13.02)	1.06 (16.96)	0.58 (15.93)	1.02 (3.65)	3.12 (19.26)	1.43 (22.88)	0.87 (23.90)	2.49 (8.92)
WESTERN MAHARASHTRA												
Nasik	0.44 (4.20)	0.29 (3.82)	0.19 (10.98)	0.08 (4.10)	1.02 (9.73)	0.69 (9.09)	0.18 (10.40)	0.15 (7.69)	2.70 (25.76)	1.87 (24.64)	0.43 (24.86)	0.71 (36.41)
Dhule	0.30 (2.26)	0.06 (1.86)	0.11 (7.97)	0.04 (3.01)	0.89 (6.72)	0.17 (5.26)	0.15 (10.87)	0.32 (24.06)	2.92 (22.04)	0.56 (17.34)	0.26 (18.84)	0.30 (22.56)
Jalgaon	0.30 (3.78)	0.15 (4.08)	0.10 (10.64)	0.01 (1.15)	0.95 (11.98)	0.59 (16.03)	0.13 (13.83)	0.19 (21.84)	2.24 (18.25)	1.22 (33.15)	0.34 (36.17)	0.45 (51.72)
Ahmednagar	0.57 (2.99)	0.72 (6.59)	0.81 (44.75)	0.15 (2.90)	1.60 (8.40)	1.70 (15.57)	0.43 (23.76)	0.60 (11.61)	3.75 (19.69)	4.00 (36.63)	0.52 (28.73)	1.99 (38.49)
Pune	0.55 (3.60)	0.37 (4.29)	0.17 (20.24)	0.17 (3.98)	1.28 (8.37)	0.52 (6.03)	0.09 (10.72)	0.26 (6.09)	2.73 (17.85)	1.39 (16.18)	0.30 (35.71)	0.45 (10.54)
Solapur	0.20 (0.79)	0.21 (0.94)	0.13 (4.81)	0.09 (1.14)	0.71 (2.80)	0.86 (3.86)	1.01 (37.42)	0.48 (6.06)	2.09 (8.25)	2.42 (10.89)	0.33 (12.22)	0.83 (10.48)
Satara	0.42 (7.91)	0.24 (6.33)	0.34 (32.08)	0.10 (7.19)	0.55 (10.36)	0.35 (9.23)	0.21 (19.81)	0.10 (7.20)	0.98 (18.45)	0.67 (17.68)	0.24 (22.64)	0.15 (10.79)
Sangli	0.29 (5.81)	0.10 (3.11)	0.24 (47.06)	0.08 (14.03)	0.65 (13.03)	0.26 (8.07)	0.11 (21.57)	0.07 (12.28)	0.96 (19.24)	0.53 (16.46)	0.13 (25.49)	0.02 (3.51)
Kolhapur	2.81 (10.64)	2.43 (13.62)	1.91 (19.31)	0.67 (18.36)	3.19 (12.08)	2.21 (12.39)	0.93 (9.40)	0.43 (11.78)	4.96 (18.79)	3.56 (19.96)	0.85 (8.60)	1.15 (31.51)
MARATHWADA												
Aurangabad	0.68 (1.95)	0.85 (2.51)	1.35 (15.36)	0.16 (5.33)	2.41 (6.92)	3.17 (9.37)	1.00 (11.38)	0.50 (16.67)	6.96 (19.98)	8.57 (25.34)	2.24 (25.48)	0.38 (12.67)
Parabhani	0.63 (1.70)	0.37 (3.16)	0.02 (11.76)	0.02 (1.48)	2.27 (6.10)	1.05 (8.96)	0.01 (5.89)	0.04 (2.96)	6.92 (18.60)	2.58 (22.01)	0.03 (11.76)	0.59 (43.71)
Beed	0.40 (1.89)	0.30 (2.56)	0.47 (21.08)	0.04 (2.35)	1.28 (6.04)	1.03 (8.78)	0.41 (18.39)	0.09 (5.29)	3.41 (16.10)	1.81 (15.43)	0.49 (21.97)	0.17 (10.00)
Nanded	0.71 (3.14)	0.59 (3.41)	0.18 (21.69)	0.05 (3.29)	2.06 (9.09)	1.59 (9.19)	0.24 (28.92)	0.06 (3.95)	5.16 (22.78)	5.05 (29.19)	0.39 (46.99)	0.33 (21.71)
Osmanabad	0.43 (1.25)	0.25 (1.76)	0.29 (8.24)	0.05 (6.67)	1.81 (5.26)	0.94 (6.62)	0.36 (10.23)	0.10 (13.33)	5.12 (14.86)	2.77 (19.51)	0.60 (17.04)	0.21 (28.00)
VIDARBHA												
Buldhana	0.34 (2.76)	0.22 (3.87)	0.38 (21.96)	0.09 (2.59)	1.30 (10.57)	0.96 (16.90)	0.21 (12.14)	0.40 (11.50)	2.87 (23.33)	1.42 (25.00)	0.53 (30.64)	0.86 (24.71)
Akola	0.39 (1.62)	0.22 (2.19)	0.70 (13.86)	0.14 (3.15)	1.28 (5.32)	0.95 (9.46)	0.56 (11.09)	0.34 (7.64)	3.11 (12.92)	1.92 (19.12)	0.96 (19.01)	0.60 (13.48)
Anaravati	0.80 (3.25)	0.43 (4.03)	1.04 (13.37)	0.12 (2.78)	2.67 (10.85)	1.17 (10.97)	0.95 (12.21)	0.58 (13.42)	5.80 (23.58)	2.35 (22.04)	1.66 (21.34)	0.87 (20.14)
Yavatmal	0.22 (0.33)	0.16 (0.37)	1.40 (4.99)	0.06 (0.57)	1.40 (2.09)	1.70 (3.95)	1.96 (6.99)	0.61 (5.82)	7.41 (11.04)	6.64 (15.41)	5.15 (18.37)	2.18 (20.78)
Wardha	0.10 (1.72)	0.04 (3.74)	0.06 (9.68)	0.01 (1.18)	0.38 (6.54)	0.09 (8.41)	0.07 (11.29)	0.05 (5.88)	1.08 (18.59)	0.20 (18.69)	0.14 (22.58)	0.08 (9.41)
Nagpur	0.13 (1.85)	0.05 (1.18)	0.18 (16.82)	0.01 (2.70)	0.62 (8.83)	0.27 (6.40)	0.10 (9.35)	0.06 (16.22)	1.70 (24.22)	0.76 (18.01)	0.33 (30.84)	0.06 (16.22)
Bhandara	0.17 (15.60)	0.12 (18.18)	0.12 (57.15)	0.02 (28.57)	0.22 (20.18)	0.13 (19.70)	0.07 (33.33)	0.03 (42.86)	0.24 (22.02)	0.11 (16.67)	0.01 (4.76)	0.02 (28.57)
Chandrapur	2.67 (9.17)	1.34 (6.76)	2.81 (40.49)	0.11 (4.72)	5.70 (19.58)	2.74 (13.82)	1.23 (17.72)	0.15 (6.44)	9.69 (33.29)	5.69 (28.69)	1.53 (22.05)	0.59 (25.32)

Table 5.19 (Continued....)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	4.40 (27.08)	3.59 (26.30)	1.56 (33.88)	1.16 (19.90)	3.16 (19.45)	6.20 (46.72)	1.02 (22.22)	3.63 (62.26)	16.25 (100.00)	13.27 (100.00)	4.59 (100.00)	5.83 (100.00)
Kulaba	1.34 (14.84)	0.38 (19.29)	0.04 (4.76)	0.03 (2.97)	0.95 (10.52)	0.15 (7.62)	-	-	9.03 (100.00)	1.97 (100.00)	0.84 (100.00)	1.01 (100.00)
Ratnagiri	4.80 (29.63)	1.49 (23.84)	0.47 (12.91)	3.66 (13.11)	3.45 (21.30)	1.00 (16.00)	0.58 (15.94)	19.95 (71.45)	16.20 (100.00)	6.25 (100.00)	3.64 (100.00)	27.92 (100.00)
WESTERN MAHARASHTRA												
Nasik	4.19 (39.98)	3.44 (45.32)	0.89 (51.45)	0.88 (45.13)	2.13 (20.33)	1.30 (17.13)	0.04 (2.31)	0.13 (6.67)	10.48 (100.00)	7.59 (100.00)	1.73 (100.00)	1.95 (100.00)
Dhule	6.85 (51.70)	2.14 (66.25)	0.74 (53.62)	0.35 (26.31)	2.29 (17.28)	0.30 (9.29)	0.12 (8.70)	0.32 (24.06)	13.25 (100.00)	3.23 (100.00)	1.38 (100.00)	1.33 (100.00)
Jalgaon	3.07 (38.71)	1.24 (33.70)	0.37 (39.36)	0.22 (25.29)	1.37 (17.28)	0.48 (13.04)	-	-	7.93 (100.00)	3.68 (100.00)	0.94 (100.00)	0.87 (100.00)
Ahmednagar	6.83 (35.85)	3.20 (29.30)	0.05 (2.76)	0.79 (15.28)	6.30 (33.07)	1.30 (11.91)	-	1.64 (31.72)	19.05 (100.00)	10.92 (100.00)	1.81 (100.00)	5.17 (100.00)
Pune	5.86 (38.33)	2.70 (31.32)	0.28 (33.33)	0.44 (10.30)	4.87 (31.85)	3.64 (42.23)	-	2.95 (69.09)	15.29 (100.00)	8.62 (100.00)	0.84 (100.00)	4.27 (100.00)
Solapur	6.78 (26.78)	7.79 (35.01)	1.19 (44.07)	3.35 (42.30)	15.54 (61.38)	10.97 (49.30)	0.04 (1.48)	3.17 (40.02)	25.32 (100.00)	22.25 (100.00)	2.70 (100.00)	7.92 (100.00)
Satara	1.73 (32.58)	1.11 (29.29)	0.27 (25.47)	-	1.63 (30.70)	1.42 (37.47)	-	1.04 (74.82)	5.31 (100.00)	3.79 (100.00)	1.06 (100.00)	1.39 (100.00)
Sangli	1.67 (33.47)	0.94 (29.19)	0.03 (5.88)	0.09 (15.79)	1.42 (28.45)	1.39 (43.17)	-	0.31 (54.39)	4.99 (100.00)	3.22 (100.00)	0.51 (100.00)	0.57 (100.00)
Kolhapur	7.92 (30.00)	5.21 (29.20)	2.26 (22.85)	0.28 (7.67)	7.52 (28.49)	4.43 (24.83)	3.94 (39.84)	1.12 (30.68)	26.40 (100.00)	17.84 (100.00)	9.89 (100.00)	3.65 (100.00)
MARATHWADA												
Aurangabad	14.38 (41.29)	13.27 (39.24)	3.86 (43.91)	0.75 (25.00)	10.40 (29.86)	7.96 (23.54)	0.34 (3.87)	1.21 (40.33)	34.83 (100.00)	33.82 (100.00)	8.79 (100.00)	3.00 (100.00)
Parabhani	15.67 (42.12)	4.74 (40.44)	0.12 (70.59)	0.42 (31.11)	11.71 (31.48)	2.98 (25.44)	-	0.28 (20.74)	37.20 (100.00)	11.72 (100.00)	0.17 (100.00)	1.35 (100.00)
Beed	7.95 (37.54)	4.68 (39.90)	0.69 (30.94)	0.48 (28.24)	8.14 (38.43)	3.91 (33.33)	0.17 (7.62)	0.92 (54.12)	21.18 (100.00)	11.73 (100.00)	2.23 (100.00)	1.70 (100.00)
Wanded	10.36 (45.74)	8.34 (48.21)	0.02 (2.40)	0.89 (58.55)	4.36 (19.25)	1.73 (10.00)	-	0.19 (12.50)	22.65 (100.00)	17.30 (100.00)	0.83 (100.00)	1.52 (100.00)
Osmanabad	13.12 (38.08)	5.85 (41.20)	2.15 (61.08)	0.28 (37.33)	13.97 (40.55)	4.39 (30.91)	0.12 (3.41)	0.11 (14.67)	34.45 (100.00)	14.20 (100.00)	3.52 (100.00)	0.75 (100.00)
VIDARBHA												
Buldhana	4.73 (38.46)	2.36 (41.55)	0.54 (31.21)	1.69 (48.56)	3.06 (24.88)	0.72 (12.68)	0.07 (4.05)	0.44 (12.64)	12.30 (100.00)	5.68 (100.00)	1.73 (100.00)	3.48 (100.00)
Akola	8.75 (36.35)	4.29 (42.73)	2.73 (54.06)	2.05 (46.07)	10.54 (43.79)	2.66 (26.50)	0.10 (1.98)	1.32 (29.66)	24.07 (100.00)	10.04 (100.00)	5.05 (100.00)	4.45 (100.00)
Anaravati	10.11 (41.10)	4.25 (39.88)	3.75 (48.20)	1.69 (39.12)	5.22 (21.22)	2.46 (23.08)	0.38 (4.88)	1.06 (24.54)	24.60 (100.00)	10.66 (100.00)	7.78 (100.00)	4.32 (100.00)
Yavatmal	32.89 (49.02)	21.24 (49.29)	18.56 (66.19)	5.38 (51.29)	25.17 (37.52)	13.35 (30.98)	0.97 (3.46)	2.26 (21.54)	67.09 (100.00)	43.09 (100.00)	28.04 (100.00)	10.49 (100.00)
Wardha	2.38 (40.96)	0.41 (38.32)	0.35 (56.45)	0.28 (32.94)	1.87 (32.19)	0.33 (30.84)	-	0.43 (50.59)	5.81 (100.00)	1.07 (100.00)	0.62 (100.00)	0.85 (100.00)
Nagpur	3.20 (45.58)	1.64 (38.86)	0.46 (42.99)	0.10 (27.03)	1.37 (19.52)	1.50 (35.55)	-	0.14 (37.83)	7.02 (100.00)	4.22 (100.00)	1.07 (100.00)	0.37 (100.00)
Bhandara	0.27 (24.77)	0.25 (37.88)	0.01 (4.76)	-	0.19 (17.43)	0.05 (7.57)	-	-	1.09 (100.00)	0.66 (100.00)	0.21 (100.00)	0.07 (100.00)
Chandrapur	9.10 (31.26)	7.94 (40.04)	1.34 (19.31)	0.91 (39.06)	1.95 (6.70)	2.12 (10.69)	0.03 (0.43)	0.57 (24.46)	29.11 (100.00)	19.83 (100.00)	6.94 (100.00)	2.33 (100.00)

Note: Figures in the parentheses indicate percentage to the total of the districts.

the range of 2300 to 2900 hectares in Thana, Kulaba, Ratnagiri, Kolhapur, Chandrapur and in the remaining districts it was less than 800 hectares. However, during 1985-86, the area was less than 100 hectares in all districts of Marathwada (except Aurangabad), Vidarbha (except Akola, Amaravati and Chandrapur) and Western Maharashtra (except Ahmednagar, Pune, Satara and Kolhapur).

ii. Changes in the area of wholly rented small holdings:

The area of wholly rented small holdings for 1970-71 ranged from 220 ha (Bhandara) to 5700 ha (Chandrapur). It declined in the range of 30 ha (Bhandara) to 1020 ha (Ratnagiri) during 1985-86.

iii Changes in the area of wholly rented semi-medium holdings:

The area of wholly rented semi-medium holdings for 1970-71 ranged from 240 hectares (Bhandara) to 9690 hectares (Chandrapur) which declined during 1985-86. In that year, it ranged from 20 hectares (Bhandara, Sangli) to 2490 hectares (Ratnagiri). All the districts of Western Maharashtra (except Satara, Sangli), Parbhani (Marathwada), Bhandara (Vidarbha) and Ratnagiri (Konkan) showed increasing trend during 1985-86 over that in 1980-81. In general, a substantial decline in the area during 1985-86 over that in 1970-71 was noted in the districts of Marathwada followed by Vidarbha, Western Maharashtra and Konkan.

iv. Changes in the area of wholly rented medium holdings:

The proportion of area under wholly rented medium holdings was more than one-third to about half the total in some districts during 1970-71. The area

under this category was found to be declining in all the districts of Maharashtra. The pattern was more or less similar to that observed in the area under semi-medium holdings. The area declined to zero in Satara and Bhandara during census of 1985-86.

v. Changes in the area of wholly rented large holdings:

The proportion of area of wholly rented large holdings ranged from 6.70 per cent (Chandrapur) to 61.38 per cent (Solapur) during 1970-71. This area declined to zero in Kulaba, Jalgaon, Ahmednagar, Pune, Satara, Sangli, Parbhani, Nanded, Wardha, Nagpur and Bhandara during 1980-81. Though there existed some area under this category in 1985-86 census, it was quite less.

An attempt was made to calculate the changes in area in terms of per cent in successive census years and for the total period of 15 years (1970-71 to 1985-86). The results of the same are presented in Table 5.20 and explained by size classes of holdings in different districts of Maharashtra.

i Percentage change in the area of wholly rented marginal holdings:

A continuous declining trend in successive census years during 1985-86 over 1970-71 was observed in Ratnagiri, Nasik, Jalgaon, Kolhapur and Nanded districts. During the period from 1976-77 to 1980-81, all the districts of Vidarbha, Osmanabad, Beed, Aurangabad, Satara, Sangli, Ahmednagar and Dhule showed increase in the percentage of area under the category.

Considering the total period of 15 years (1970-71 to 1985-86), the decline in the area of wholly rented marginal holdings was above 90 per cent in Parbhani, Beed, Nanded (Marathwada), Wardha, Nagpur, Chandrapur (Vidarbha) and Jalgaon (Western Maharashtra).

Table 5.20 Percentage changes in the area of wholly rented holdings by size-classes for different census periods in different districts of Maharashtra.

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	-54.01	-43.12	-35.48	-83.12	-55.51	-38.46	-54.16	-47.45	-64.22	-49.24	-53.73	-91.59
Kulaba	-73.91	-54.16	36.36	-83.69	-81.13	-30.00	-10.71	-88.20	-82.79	-40.62	47.36	-84.94
Ratnagiri	-53.30	-10.23	-29.82	-70.58	-49.76	-45.28	75.86	-51.65	-82.38	-39.16	186.20	-20.19
WESTERN MAHARASHTRA												
Nasik	-34.09	-34.48	-57.89	-81.81	-32.35	-73.91	-16.66	-85.29	-30.74	-77.00	65.11	-73.70
Dhule	-80.00	83.33	-63.63	-86.66	-56.41	-11.76	113.33	-17.94	-80.82	-53.57	15.38	-89.72
Jalgaon	-50.00	-33.33	-90.00	-96.66	-37.89	-77.96	46.15	-80.00	-45.53	-72.13	32.35	-79.91
Ahmednagar	26.31	12.50	-81.48	-73.68	6.25	-74.70	39.53	-62.50	6.66	-87.00	282.69	-46.93
Pune	-32.72	-54.05	-	-69.09	-59.37	-82.69	188.88	-76.68	-49.08	-78.47	50.00	-83.51
Solapur	5.00	-38.09	-30.76	-55.00	21.12	17.44	-52.47	-32.39	15.78	-86.36	151.51	-60.28
Satara	-42.85	41.66	-70.58	-76.19	-36.36	-40.00	-52.38	-81.81	-31.63	-64.17	-37.50	-84.69
Sangli	-65.51	140.00	-66.66	-72.41	-60.00	-57.69	-36.36	-89.23	-44.79	-75.47	-84.61	-97.91
Kolhapur	-13.52	-21.39	-64.92	-76.15	-30.72	-57.91	-53.76	-86.52	-28.22	-76.12	35.29	-76.81
MARATHWADA												
Aurangabad	25.00	58.82	-88.14	-76.47	31.53	-68.45	-50.00	-79.25	23.13	-73.86	-83.03	-94.54
Parabhani	-41.26	-94.59	-	-96.82	-53.74	-99.04	300.00	-98.23	-62.71	-99.22	2850.00	-91.47
Beed	-25.00	56.66	-91.48	-90.00	-19.53	-60.19	-78.04	-92.96	-46.92	-72.92	-65.30	-95.01
Wanded	-16.90	-69.49	-72.22	-92.95	-22.81	-84.90	-75.00	-97.08	-2.13	-92.27	-15.38	-93.60
Oswanabad	-41.86	16.00	-82.75	-88.37	-48.06	-61.70	-72.22	-94.47	-45.89	-78.33	-65.00	-95.89
VIDARBHA												
Buldhana	-35.29	72.73	-76.31	-73.52	-26.15	-78.12	90.47	-69.23	-50.52	-62.67	62.26	-70.03
Akola	-43.58	218.18	-80.00	-64.10	-25.78	-41.05	-39.29	-73.43	-38.26	-50.00	-37.50	-80.70
Amaravati	-46.25	141.86	-88.46	-85.00	-56.17	-18.80	-38.94	-78.27	-59.48	-29.36	-47.59	-85.00
Yavatmal	-27.27	775.00	-95.71	-72.72	21.42	15.29	-68.87	-56.42	-10.39	-22.43	-57.66	-70.58
Wardha	-60.00	50.00	-83.33	-90.00	-72.72	-22.22	-28.57	-86.84	-81.48	-30.00	-42.85	-92.59
Wagpur	-61.53	260.00	-94.44	-92.30	-56.45	-62.96	-40.00	-90.32	-55.29	-48.68	-84.61	-96.47
Bhandara	-29.41	-	-83.33	-88.23	-40.90	-46.15	-57.14	-86.36	-54.16	-90.90	100.00	-91.66
Chandrapur	-49.81	109.70	-96.08	-95.88	-51.92	-55.10	-87.80	-97.36	-41.27	-73.11	-61.43	-93.91

Table 5.20 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	-20.68	-55.30	-25.64	-73.63	96.20	-83.54	255.88	14.87	-18.33	-65.41	27.01	-64.12
Kulaba	-71.64	-89.47	-25.00	-97.76	-84.21	-100.00	-	-100.00	-78.18	-57.36	20.23	-88.81
Ratnagiri	-68.95	-68.45	678.72	-23.75	-71.01	-9.42	3339.65	478.26	-61.41	-41.76	667.03	72.35
WESTERN MAHARASHTRA												
Nasik	-17.89	-74.12	-1.12	-78.99	-38.96	-96.92	225.00	-93.89	-27.57	-77.20	12.71	-81.67
Dhule	-68.75	-65.42	652.70	-94.89	-86.89	-60.00	166.66	-86.02	-75.62	-57.27	-3.62	-89.96
Jalgaon	-59.60	-70.16	-40.54	-92.83	-64.96	-100.00	-	-100.00	-53.59	-74.45	-7.44	-89.02
Ahmednagar	-53.14	-98.43	1480.00	-88.43	-79.36	-100.00	-	-73.96	-42.67	-83.42	185.63	-72.86
Pune	-53.92	-89.62	57.14	-92.49	-25.25	-100.00	-	-39.42	-43.62	-90.25	408.33	-72.07
Solapur	14.89	-84.72	181.51	-45.79	-29.40	-96.67	7825.00	-79.60	-12.12	-87.86	193.33	-68.72
Satara	-35.83	-75.67	-100.00	-100.00	-12.88	-100.00	-	-36.19	-28.62	-72.03	31.13	-73.82
Sangli	-43.71	-96.80	200.00	-94.61	-2.11	-100.00	-	-78.16	-35.47	-84.16	11.76	-88.57
Kolhapur	-34.21	-56.62	-87.61	-94.46	-41.09	-11.06	-71.57	-85.10	-32.42	-44.56	-63.09	-86.17
MARATHWADA												
Aurangabad	-7.71	-70.91	-80.56	-94.78	-23.46	-95.72	255.88	-88.36	-2.89	-74.00	-65.87	-91.38
Parabhani	-69.75	-97.46	250.00	-97.31	-74.55	-100.00	-	-97.60	-68.49	-98.54	694.11	-96.37
Beed	-41.13	-85.25	-30.43	-93.96	-45.23	-95.65	441.17	-88.69	-44.61	-80.98	-23.76	-91.97
Wanded	-19.49	-99.76	4350.00	-91.40	-60.32	-100.00	-	-95.64	-23.62	-95.20	83.13	-93.28
Oswanabad	-55.41	-63.24	-86.97	-97.86	-68.57	-97.26	-8.33	-99.21	-58.78	-75.21	-78.69	-97.82
VIDARBHA												
Buldhana	-50.10	-77.11	212.96	-64.27	-76.47	-90.27	528.57	-85.62	-53.82	-69.54	101.15	-71.70
Akola	-50.97	-36.36	-24.90	-76.57	-74.76	-96.24	1220.00	-87.47	-58.28	-49.70	-11.88	-81.51
Amaravati	-57.96	-11.76	-54.93	-83.28	-52.87	-84.55	178.94	-79.69	-56.66	-27.01	-44.47	-82.43
Yavatmal	-35.42	-12.61	-71.01	-83.64	-46.96	-92.73	132.98	-91.02	-35.77	-34.92	-62.58	-84.36
Wardha	-82.77	-14.63	-20.00	-88.23	-82.35	-100.00	-	-77.00	-81.58	-42.05	37.09	-85.37
Hagpur	-48.75	-71.95	-78.26	-96.87	9.48	-100.00	-	-89.78	-39.88	-74.64	-65.42	-94.72
Bhandara	-7.40	-96.00	-	-100.00	-73.68	-100.00	-	-100.00	-39.44	-68.18	-66.66	-93.57
Chandrapur	-12.74	-83.12	-32.08	-90.00	8.71	-98.58	1800.00	-70.76	-31.87	-65.00	-66.42	-91.99

ii. Percentage change in the area of wholly rented small holdings:

The declining trend was continuous in Thana, Kulaba, Nasik, Satara, Sangli, Kolhapur, Beed, Nanded, Osmanabad and districts of Vidarbha (except Buldhana and Yavatmal) during the period from 1970-71 to 1985-86.

Considering the total period of 15 years, there was a decline in the area around 90 per cent in all the districts of Marathwada (except Aurangabad) and Nagpur and Chandrapur districts of Vidarbha. Above 80 per cent decline in the area was observed for Nasik, Jalgaon, Satara, Sangli, Kolhapur (Western Maharashtra), Kulaba (Konkan), Wardha and Bhandara districts (Vidarbha).

iii. Percentage change in the area of wholly rented semi-medium holdings:

A drastic change in the area of wholly rented semi-medium holdings was noted in Parbhani (99.22 per cent decline during 1976-77 to 1980-81) and 2850 per cent increase during 1980-81 to 1985-86). During the period of 15 years, the area of wholly rented semi-medium holdings declined in all the districts of the state. The magnitude of negative figures was the highest (above 90 per cent) in all the districts of Marathwada, Wardha, Nagpur, Bhandara, Chandrapur (Vidarbha), Thana (Kokan) and Sangli. The lowest decline was in Ratnagiri district (20.19 per cent). In the remaining districts except Ahmednagar the area showed a decline above 60 per cent.

iv. Percentage change in the area of wholly rented medium holdings:

As stated earlier, medium holdings shared a major proportion of the total area under the category of wholly rented holdings. There was a declining trend during the period under consideration. It was more or less similar to the one

observed in the semi-medium holdings. The area reported for Satara and Bhandara districts was nil. The decline in the area was above 70 per cent in all the districts except Ratnagiri, Solapur and Buldhana.

v. Percentage change in the area of wholly rented large holdings:

The drastic changes in the area of wholly rented large holdings (100 per cent decline during the period from 1976-77 to 1980-81 and 100 per cent increase during 1980-81 to 1985-86) were noted in Ahmednagar, Pune, Satara, Sangli (W. Maharashtra) Parbhani (Marathwada) and Bhandara districts (Vidarbha).

Considering the total period from 1970-71 to 1985-86, the area reduction was 100 per cent in Kulaba, Jalgaon and Bhandara districts. Above 90 per cent decline was observed in Nasik, Parbhani, Nanded, Osmanabad and Yavatmal districts. Only Thana and Ratnagiri districts showed positive figures (14.87 and 478.26 per cent) during the period.

The above results lead to the following conclusions:

The area of wholly rented holdings for all the size classes was observed to be declining. It may be the effect of implementation of tenancy legislations. The proportionate share of marginal and small holdings in wholly rented area ranged from 20 to 70 per cent in 1980-81. During the period of 15 years (1970-71 to 1985-86), the area showed declining trend in all the size groups for all the districts of the State except Ratnagiri and Thana for large size group. The decline in the wholly rented area in some cases was cent per cent (Kulaba, Jalgaon, Bhandara for large size group). Majority of the districts for all the size groups showed above 80 per cent decline .

5.2.5 Changes in the Distribution of Number of Partly Owned and Partly Rented Holdings in Different Districts:

The distribution of number of partly owned/rented holdings by different size classes in different districts of Maharashtra during the 4 census years is presented in Table 5.21 and the results are discussed below by size classes of holdings.

i. Changes in the number of partly owned/rented marginal holdings:

The number of partly owned/rented marginal holdings was below one thousand during 1970-71 in all the districts except Thana, Kulaba, Ratnagiri, Pune, Satara, Kolhapur and Chandrapur. An increase in the number of these holdings during 1976-77 was noted in Aurangabad, Parbhani, Beed, Nanded (Marathwada), Akola, Yavatmal (Vidarbha). There was however, a substantial increase in the number and proportion of these holdings in all districts of Marathwada, Vidarbha, Western Maharashtra (except Kolhapur) and Thana districts during the period from 1976-77 to 1980-81. Subsequently there was a decline during 1985-86. The decline in the number of holdings was 100 per cent in Jalgaon and about half to three-fourth in the remaining districts except (Osmanabad and Nagpur).

ii. Changes in the number of partly owned/rented small holdings:

The number of partly owned/rented small holdings showed a similar trend as noted in case of marginal holdings. The drastic changes were observed in Osmanabad, Jalgaon, Solapur and Nanded districts. Considering the total period of 15 years (1970-71 to 1985-86), the holdings in all the districts showed a declining trend.

Table 5.21 Distribution of number of partly owned/rented holdings by size-classes in different districts of Maharashtra

(Numbers in thousand)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	2.19 (19.59)	1.46 (24.46)	1.66 (43.80)	0.26 (22.03)	2.27 (20.30)	1.43 (23.95)	0.56 (14.77)	0.31 (26.27)	2.86 (25.58)	1.41 (23.62)	0.69 (18.21)	0.29 (24.58)
Kulaba	4.15 (22.61)	2.12 (24.74)	1.65 (39.85)	1.09 (33.85)	4.91 (26.76)	2.24 (26.14)	1.15 (27.78)	0.93 (28.88)	5.04 (27.47)	2.25 (26.26)	0.88 (21.26)	0.86 (26.71)
Ratanagiri	8.03 (32.41)	7.00 (33.90)	4.51 (41.95)	1.35 (30.68)	5.12 (20.66)	4.52 (21.89)	2.21 (20.56)	0.74 (16.82)	5.49 (22.16)	4.45 (21.55)	1.92 (17.86)	1.21 (27.50)
WESTERN MAHARASHTRA												
Nasik	0.41 (4.38)	0.19 (3.50)	0.36 (24.32)	0.03 (3.57)	0.71 (7.59)	0.34 (6.26)	0.15 (10.14)	0.06 (7.14)	1.74 (18.59)	0.95 (17.49)	0.28 (18.92)	0.21 (25.00)
Dhule	0.07 (2.75)	-	0.04 (23.53)	0.02 (11.76)	0.15 (5.88)	0.02 (3.39)	0.02 (11.76)	0.02 (11.76)	0.40 (15.69)	0.08 (13.56)	0.02 (11.77)	0.02 (11.77)
Jalgaon	0.11 (2.67)	0.02 (1.27)	0.38 (22.76)	-	0.27 (6.56)	0.12 (7.59)	0.23 (13.77)	0.02 (11.76)	0.82 (19.90)	0.27 (17.09)	0.32 (19.16)	0.01 (5.88)
Ahmednagar	0.28 (3.01)	0.26 (4.51)	1.13 (26.04)	0.12 (6.82)	0.70 (7.52)	0.52 (9.01)	0.57 (13.13)	0.31 (17.61)	1.57 (16.86)	1.46 (25.30)	1.19 (27.42)	0.63 (35.80)
Pune	1.00 (7.85)	0.68 (9.10)	0.96 (23.30)	0.20 (13.99)	1.59 (12.48)	0.93 (12.45)	0.78 (18.93)	0.26 (18.18)	2.78 (21.82)	1.76 (23.56)	0.49 (11.89)	0.41 (28.67)
Solapur	0.18 (3.35)	0.06 (1.69)	0.52 (13.79)	0.07 (3.75)	0.31 (5.77)	0.17 (4.77)	0.65 (17.24)	0.11 (5.88)	0.77 (14.34)	0.36 (10.11)	0.65 (17.24)	0.29 (15.51)
Satara	1.91 (15.09)	1.32 (16.24)	1.38 (45.70)	0.46 (20.26)	2.30 (18.17)	1.87 (23.00)	0.51 (16.89)	0.59 (25.99)	3.52 (27.80)	2.33 (28.66)	0.56 (18.54)	0.68 (29.96)
Sangli	0.93 (12.35)	0.48 (12.21)	0.85 (32.57)	0.22 (30.14)	1.29 (17.13)	0.67 (17.05)	0.35 (13.41)	0.17 (23.29)	2.02 (26.83)	1.11 (28.25)	0.60 (22.99)	0.14 (19.18)
Kolhapur	5.63 (20.11)	5.24 (20.69)	4.94 (47.87)	1.46 (30.80)	6.05 (21.61)	6.21 (24.52)	1.77 (17.15)	1.13 (23.84)	7.73 (27.61)	7.51 (29.65)	2.02 (19.57)	1.20 (25.32)
MARATHWADA												
Aurangabad	0.15 (1.31)	0.18 (1.72)	1.50 (26.09)	0.07 (4.27)	0.42 (3.68)	0.65 (6.21)	0.54 (9.39)	0.17 (10.37)	1.53 (13.41)	2.12 (20.27)	1.12 (19.48)	0.38 (23.17)
Parabhani	0.09 (0.98)	0.11 (2.36)	0.38 (19.69)	0.04 (5.97)	0.35 (3.79)	0.36 (7.71)	0.19 (9.84)	0.10 (42.92)	1.18 (12.78)	0.97 (20.77)	0.55 (28.50)	0.14 (20.90)
Beed	0.15 (1.65)	0.34 (6.23)	0.77 (21.10)	0.07 (4.67)	0.37 (4.07)	0.28 (5.13)	0.49 (13.52)	0.23 (15.33)	1.30 (14.32)	1.10 (20.15)	0.67 (18.36)	0.35 (23.33)
Wanded	0.11 (1.76)	0.14 (2.90)	1.58 (34.50)	0.06 (6.82)	0.39 (6.23)	0.32 (6.52)	0.65 (14.19)	0.10 (11.36)	1.13 (18.05)	0.91 (18.84)	0.74 (16.16)	0.22 (25.00)
Osmanabad	0.11 (1.15)	0.06 (1.45)	1.84 (26.94)	0.06 (5.41)	0.37 (3.89)	0.21 (5.06)	1.07 (15.67)	0.09 (8.11)	1.14 (11.97)	0.69 (16.63)	1.28 (18.74)	0.26 (23.42)
VIDARBHA												
Buldhana	0.10 (1.70)	0.05 (1.72)	1.04 (39.39)	0.05 (5.95)	0.28 (4.77)	0.24 (8.25)	0.41 (15.53)	0.13 (15.48)	0.97 (16.52)	0.60 (20.62)	0.46 (17.42)	0.21 (25.00)
Akola	0.09 (1.27)	0.16 (3.65)	0.75 (29.41)	0.03 (1.71)	0.36 (5.09)	0.59 (13.47)	0.39 (15.30)	0.09 (5.14)	1.03 (14.57)	0.71 (16.21)	0.44 (17.25)	0.30 (17.14)
Amaravati	0.16 (1.74)	0.09 (2.13)	1.88 (39.41)	0.02 (0.90)	0.56 (6.10)	0.45 (10.64)	0.65 (13.63)	0.16 (7.24)	1.61 (17.54)	0.81 (19.15)	0.64 (13.42)	0.52 (23.53)
Yavatmal	0.01 (0.14)	0.02 (0.43)	1.71 (30.11)	0.01 (0.41)	0.10 (1.38)	0.06 (1.30)	0.76 (13.38)	0.11 (4.47)	0.62 (8.53)	0.56 (12.15)	1.06 (18.66)	0.60 (24.39)
Wardha	0.02 (0.72)	0.01 (1.19)	0.09 (19.57)	0.02 (2.98)	0.07 (2.52)	0.05 (5.95)	0.04 (8.70)	0.06 (8.96)	0.33 (11.87)	0.14 (16.67)	0.08 (17.39)	0.20 (29.85)
Nagpur	0.05 (1.07)	0.03 (1.82)	0.15 (15.31)	0.03 (6.52)	0.18 (3.86)	0.09 (5.46)	0.13 (13.26)	0.08 (17.39)	0.68 (14.56)	0.25 (15.15)	0.19 (19.39)	0.09 (19.56)
Bhandara	0.23 (13.14)	0.17 (14.41)	0.26 (59.09)	0.10 (23.25)	0.39 (22.29)	0.29 (24.58)	0.05 (11.37)	0.16 (37.21)	0.49 (28.00)	0.31 (26.27)	0.08 (18.18)	0.10 (23.26)
Chandrapur	1.51 (7.06)	0.91 (10.27)	2.38 (44.32)	0.37 (6.47)	3.21 (15.02)	1.53 (17.27)	0.93 (17.32)	1.36 (23.78)	6.09 (28.48)	2.50 (28.22)	0.94 (17.50)	2.14 (37.41)

Table 5.21 (Continued....)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	2.73 (24.42)	1.20 (20.10)	0.73 (19.26)	0.24 (20.34)	1.13 (10.11)	0.47 (7.87)	0.15 (3.96)	0.08 (6.78)	11.18 (100.00)	5.97 (100.00)	3.79 (100.00)	1.18 (100.00)
Kulaba	3.33 (18.15)	1.53 (17.85)	0.38 (9.18)	0.29 (9.01)	0.93 (5.01)	0.43 (5.02)	0.08 (1.93)	0.04 (1.55)	18.35 (100.00)	8.57 (100.00)	4.14 (100.00)	3.22 (100.00)
Ratnagiri	4.64 (18.72)	3.68 (17.82)	1.61 (15.98)	0.85 (19.32)	1.50 (6.05)	1.00 (4.84)	0.50 (4.65)	0.25 (5.68)	24.78 (100.00)	20.65 (100.00)	10.75 (100.00)	4.40 (100.00)
WESTERN MAHARASHTRA												
Nasik	4.01 (42.84)	2.59 (47.70)	0.64 (43.24)	0.42 (50.00)	2.49 (26.60)	1.36 (25.05)	0.05 (3.38)	0.12 (14.29)	9.36 (100.00)	5.43 (100.00)	1.48 (100.00)	0.84 (100.00)
Dhule	1.18 (46.27)	0.36 (61.02)	0.09 (52.94)	0.09 (52.94)	0.75 (29.41)	0.13 (22.03)	-	0.02 (11.77)	2.55 (100.00)	0.59 (100.00)	0.17 (100.00)	0.17 (100.00)
Jalgaon	1.81 (43.93)	0.83 (52.53)	0.72 (43.11)	0.11 (64.71)	1.11 (26.94)	0.34 (21.52)	0.02 (1.20)	0.03 (17.65)	4.12 (100.00)	1.58 (100.00)	1.67 (100.00)	0.17 (100.00)
Ahmednagar	3.63 (38.99)	2.33 (40.38)	1.35 (31.11)	0.58 (32.95)	3.13 (33.62)	1.20 (20.80)	0.10 (2.30)	0.12 (6.82)	9.31 (100.00)	5.77 (100.00)	4.34 (100.00)	1.76 (100.00)
Pune	4.68 (36.73)	2.66 (35.61)	1.80 (43.69)	0.38 (26.57)	2.69 (21.12)	1.44 (19.28)	0.09 (2.19)	0.18 (12.59)	12.74 (100.00)	7.47 (100.00)	4.12 (100.00)	1.43 (100.00)
Solapur	1.98 (36.87)	1.67 (46.91)	1.77 (46.95)	0.89 (47.59)	2.13 (39.67)	1.30 (36.52)	0.18 (4.78)	0.51 (27.27)	5.37 (100.00)	3.56 (100.00)	3.77 (100.00)	1.87 (100.00)
Satara	3.63 (28.67)	2.15 (26.44)	0.54 (17.88)	0.48 (21.15)	1.30 (10.27)	0.46 (5.66)	0.03 (0.99)	0.06 (2.64)	12.66 (100.00)	8.13 (100.00)	3.02 (100.00)	2.27 (100.00)
Sangli	2.44 (32.40)	1.15 (29.26)	0.74 (28.35)	0.15 (20.55)	0.85 (11.29)	0.52 (13.23)	0.07 (2.68)	0.05 (6.84)	7.53 (100.00)	3.93 (100.00)	2.61 (100.00)	0.73 (100.00)
Kolhapur	6.94 (24.78)	5.58 (22.03)	1.57 (14.63)	0.82 (17.30)	1.65 (5.89)	0.79 (3.11)	0.08 (0.78)	0.13 (2.74)	28.00 (100.00)	25.33 (100.00)	10.32 (100.00)	4.74 (100.00)
MARATHWADA												
Aurangabad	4.73 (41.46)	4.58 (43.79)	2.45 (42.61)	0.72 (43.90)	4.58 (40.14)	2.93 (28.01)	0.14 (2.43)	0.30 (18.29)	11.41 (100.00)	10.46 (100.00)	5.75 (100.00)	1.64 (100.00)
Parabhani	3.86 (41.82)	2.09 (44.75)	0.78 (40.41)	0.24 (35.82)	3.75 (40.63)	1.14 (24.41)	0.03 (1.56)	0.15 (22.39)	9.23 (100.00)	4.67 (100.00)	1.93 (100.00)	0.67 (100.00)
Beed	3.54 (38.99)	2.10 (38.46)	1.62 (44.38)	0.53 (35.33)	3.72 (40.97)	1.64 (30.03)	0.10 (2.74)	0.32 (21.34)	9.08 (100.00)	5.46 (100.00)	3.65 (100.00)	1.50 (100.00)
Wanded	2.94 (46.96)	2.47 (51.14)	1.56 (34.06)	0.37 (42.05)	1.69 (27.00)	0.99 (20.50)	0.05 (1.09)	0.13 (14.77)	6.26 (100.00)	4.83 (100.00)	4.58 (100.00)	0.88 (100.00)
Oswanabad	3.80 (39.92)	1.69 (40.72)	2.47 (36.16)	0.43 (38.74)	4.10 (43.07)	1.50 (36.14)	0.17 (2.49)	0.27 (24.32)	9.52 (100.00)	4.15 (100.00)	6.83 (100.00)	1.11 (100.00)
VIDARBHA												
Buldhana	2.37 (40.38)	1.17 (40.21)	0.69 (26.14)	0.33 (39.28)	2.15 (36.63)	0.85 (29.20)	0.04 (1.52)	0.12 (14.29)	5.87 (100.00)	2.91 (100.00)	2.64 (100.00)	0.84 (100.00)
Akola	2.71 (38.33)	1.62 (36.99)	0.91 (35.69)	0.81 (46.29)	2.88 (40.74)	1.30 (29.68)	0.06 (2.35)	0.52 (29.72)	7.07 (100.00)	4.38 (100.00)	2.55 (100.00)	1.75 (100.00)
Awaravati	3.80 (41.39)	1.84 (43.50)	1.49 (31.24)	1.03 (46.61)	3.05 (33.23)	1.04 (24.58)	0.11 (2.30)	0.48 (21.72)	9.18 (100.00)	4.23 (100.00)	4.77 (100.00)	2.21 (100.00)
Yavatmal	3.00 (41.26)	2.09 (45.34)	2.00 (35.21)	1.10 (44.71)	3.54 (48.69)	1.88 (40.78)	0.15 (2.64)	0.64 (26.02)	7.27 (100.00)	4.61 (100.00)	5.68 (100.00)	2.46 (100.00)
Wardha	1.20 (43.16)	0.40 (47.62)	0.24 (52.17)	0.30 (44.78)	1.16 (41.73)	0.24 (28.51)	0.01 (2.17)	0.09 (13.43)	2.78 (100.00)	0.84 (100.00)	0.46 (100.00)	0.67 (100.00)
Hagpur	2.23 (47.75)	0.80 (48.48)	0.49 (50.00)	0.17 (36.96)	1.53 (32.76)	0.48 (29.09)	0.02 (2.04)	0.09 (19.57)	4.67 (100.00)	1.65 (100.00)	0.98 (100.00)	0.46 (100.00)
Bhandara	0.46 (26.28)	0.31 (26.27)	0.05 (11.36)	0.06 (13.95)	0.18 (10.29)	0.10 (8.47)	-	0.01 (2.33)	1.75 (100.00)	1.18 (100.00)	0.44 (100.00)	0.43 (100.00)
Chandrapur	7.70 (36.02)	2.91 (32.84)	1.09 (20.30)	1.58 (27.62)	2.87 (13.42)	1.01 (11.40)	0.03 (0.56)	0.27 (4.72)	21.38 (100.00)	8.86 (100.00)	5.37 (100.00)	5.72 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the district.

iii. Changes in the number of partly owned/rented semi-medium holdings:

The number of partly owned/rented holdings showed uninterrupted declining trend in all the districts except Dhule, Jalgaon, Solapur, Satara, Osmanabad, Yavatmal, Bhandara and Chandrapur during 4 censuses under study.

The proportion of the semi-medium holdings ranged from 5 to 30 per cent, except Chandrapur (37.41 per cent) during the period under consideration. Though the number of holdings showed a declining trend, their proportionate share showed mixed trend. Increase in the proportionate share indicated more decline in the number of holdings in other size classes. A drastic decline in the number of holding in the category during 1985-86 as compared to that in 1970-71 was noted in Dhule, Jalgaon and Sangli districts.

iv. Changes in the number of partly owned/rented medium holdings:

The number of holdings in this category showed a declining trend in all the districts. However, the percentage figures showed a little different picture. A substantial decline was marked in Thana, Kulaba, Dhule, Jalgaon, Pune, Sangli, Parbhani and Nagpur districts in 1985-86 as compared to that in 1970-71.

v. Changes in the number of partly owned/rented large holdings:

The analysis of changes in the number of partly owned/rented holdings was interesting. All the districts indicated a declining trend in 1976-77 as compared to that in 1970-71. The rate of decline further continued in 1980-81. However, there was an increasing trend during 1985-86 over 1980-81. It was 9 times as compared to that in 1980-81 in Wardha and Chandrapur districts followed by about eight times increase in Akola. The increase was also

substantial in the remaining districts except Kokan region and Jalgaon, Ahmednagar, Sangli, Kolhapur districts of Western Maharashtra. This might have happened due to inability of partly owned/rented large holders to manage their entire land.

An attempt has been made to calculate the change in term of percentage for comparison and clear understanding. The results are presented in Table 5.22 and explained below by size classes of holdings.

i. Percentage change in the number of partly owned/rented marginal holdings:

During the period 1970-71 to 1976-77, a declining trend was noted in all the districts except Aurangabad, Parbhani, Beed, Nanded (Marathwada), Akola, and Yavatmal districts. As against this, an increasing trend was observed during the period 1976-77 to 1980-81 in all the districts except Kulaba, Ratnagiri and Kolhapur. Very substantial increase was observed in Yavatmal district (8450 per cent) followed by Amaravati (1988.88 per cent), Buldhana (1980 per cent) all from Vidarbha.

Considering the total period of 15 years (1970-71 to 1985-86), Yavatmal, Wardha showed no change. 100 per cent decline in Jalgaon 92.68 per cent decline in Nasik, above 80 per cent decline in Thana, Ratnagiri, Pune and Amaravati districts. In the remaining districts the decline ranged from 40.00 per cent (Nagpur) to 76.34 per cent (Sangli).

ii. Percentage change in the number of partly owned/rented small holdings:

The trend in the number of partly owned/rented small holdings during 1970-71 to 1976-77 was declining in all the districts of Konkan, Western

Table 5.22 Percentage changes in the number of partly owned/rented holdings by size-classes for different census periods in different districts of Maharashtra

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	-33.33	13.69	-84.33	-88.12	-37.00	-60.83	-44.64	-86.34	-50.69	-51.06	-57.97	-89.86
Kulaba	-48.91	-22.16	-33.93	-73.73	-54.37	-48.66	-19.13	-81.05	-55.35	-60.88	-2.27	-82.93
Ratnagiri	-12.82	-34.71	-70.06	-83.18	-11.71	-51.10	-66.51	-85.54	-18.94	-56.85	-36.97	-77.95
WESTERN MAHARASHTRA												
Nasik	-53.55	89.47	-91.66	-92.68	-52.11	-55.88	-60.00	-91.54	-45.40	-70.52	-25.00	-87.93
Dhule	-	-	-50.00	-71.42	-86.66	-	-	-86.66	-80.00	-75.0	-	-95.00
Jalgaon	-81.81	1800.00	-	-100.00	-55.55	91.66	-91.30	-92.59	-67.07	18.51	-96.87	-98.78
Ahmednagar	-7.14	334.61	-89.38	-57.14	-25.71	9.61	-45.61	-55.71	-7.00	-18.49	-47.05	-59.87
Pune	-32.00	41.17	-79.16	-80.00	-41.50	-20.40	-66.66	-83.64	-36.69	-72.15	-16.32	-85.25
Solapur	-66.66	766.66	-86.53	-61.11	-45.16	282.35	-83.07	-64.51	-53.24	80.55	-55.38	-62.33
Satara	-30.89	4.54	-66.66	-75.91	-18.69	-72.72	15.68	-74.34	-33.80	-75.96	21.42	-80.68
Sangli	-48.38	77.08	-74.11	-76.34	-48.06	-47.76	-51.42	-86.82	-45.04	-45.94	-76.66	-93.06
Kolhapur	-6.92	-5.72	-70.44	-74.06	2.64	-71.49	-36.15	-81.32	-2.84	-73.10	-40.59	-84.47
MARATHWADA												
Aurangabad	20.00	733.33	-95.33	-53.33	54.76	-16.92	-68.51	-59.52	38.56	-47.16	-66.07	-75.16
Parabhani	22.22	245.45	-89.47	-55.55	2.85	-47.22	-47.36	-71.42	-17.79	-43.29	-74.54	-88.13
Beed	126.66	126.47	-90.90	-53.33	-24.32	75.00	-53.06	-37.83	-15.38	-39.09	-47.76	-73.07
Wanded	27.27	1028.57	-96.20	-45.45	-17.94	103.12	-84.61	-74.35	-19.46	-18.68	-70.27	-80.53
Osmanabad	-45.45	2966.66	-96.73	-45.45	-43.24	409.52	-91.58	-75.67	-39.47	85.50	-79.68	-77.19
VIDARBHA												
Buldhana	-50.00	1980.00	-95.19	-50.00	-14.28	70.83	-68.29	-53.57	-38.14	-23.33	-54.34	-78.35
Akola	77.77	368.75	-96.00	-66.66	63.88	-33.89	-76.92	-75.00	-31.06	-38.02	-31.81	-70.87
Amravati	-43.75	1988.88	-98.93	-87.50	-19.64	44.44	-75.38	-71.42	-49.68	-20.98	-18.75	-67.70
Yavatmal	100.00	8450.00	-99.41	-	-40.00	1166.66	-85.52	10.00	-9.67	89.28	-43.39	-3.22
Wardha	-50.00	800.00	-77.77	-	-28.57	-20.00	50.00	-14.28	-57.57	-42.85	150.00	-39.39
Nagpur	-40.00	400.00	-80.00	-40.00	-50.00	44.44	38.46	-55.55	-63.23	-24.00	-52.63	-86.76
Bhandara	-26.08	52.94	-61.53	-56.52	-25.64	-82.75	220.00	-58.97	-36.73	-74.19	25.00	-79.59
Chandrapur	-39.73	161.53	-84.45	-75.49	-52.33	-39.21	46.23	-57.63	-58.94	-62.40	127.65	-64.86

Table 5.22 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	-56.04	-39.16	-67.12	-91.20	-58.40	-68.08	-46.66	-92.92	-46.60	-36.51	-53.03	-89.44
Kulaba	-60.05	-75.16	-23.68	-91.29	-53.26	-81.39	-37.50	-94.56	-53.29	-51.69	-7.72	-82.45
Ratnagiri	-20.68	-56.25	-47.20	-81.68	-33.33	-50.00	-50.00	-83.33	-16.66	-47.94	-59.06	-82.24
WESTERN MAHARASHTRA												
Nasik	-35.41	-75.28	-34.37	-89.52	-43.38	-96.32	140.00	-95.18	-41.98	-72.74	-43.24	-91.02
Dhule	-69.49	-75.00	-	-92.37	-82.66	-	-	-97.33	-76.86	-71.18	-	-93.33
Jalgaon	-54.14	-13.25	-84.72	-93.92	-69.36	-94.11	50.00	-97.29	-61.65	5.69	-89.82	-95.87
Ahmednagar	-35.81	-42.06	-57.03	-84.02	-61.66	-91.66	20.00	-96.16	-41.18	-24.78	-59.44	-81.09
Pune	-43.16	-32.33	-78.88	-91.88	-46.46	-93.75	100.00	-93.30	-41.36	-44.84	-65.29	-88.77
Solapur	-15.65	-5.98	-49.71	-55.05	-38.96	-86.15	183.33	-76.05	-33.70	5.89	-78.67	-65.17
Satara	-40.77	-74.88	-11.11	-86.77	-64.61	-93.47	100.00	-95.38	-35.78	-62.85	-24.83	-82.06
Sangli	-52.86	-35.65	-79.72	-93.85	-38.82	-86.53	-28.57	-94.11	-47.80	-33.58	-72.03	-90.30
Kolhapur	-19.59	-71.86	-47.77	-88.18	-52.12	-89.87	62.50	-92.12	-9.53	-59.25	-54.06	-83.07
MARATHWADA												
Aurangabad	-3.17	-46.50	-70.61	-84.77	-36.02	-95.22	114.28	-93.44	-8.32	-45.02	-71.47	-85.62
Parabhani	-45.85	-62.67	-69.23	-93.78	-69.60	-97.36	400.00	-96.00	-49.40	-58.67	-65.28	-92.74
Beed	-40.67	-22.85	-67.28	-85.02	-55.91	-93.90	220.00	-91.39	-39.86	-33.15	-58.90	-83.48
Wanded	-15.98	-36.84	-76.28	-87.41	-41.42	-94.94	160.00	-92.30	-22.84	-5.17	-80.78	-85.94
Osmanabad	-55.52	+46.15	-82.59	-88.68	-63.41	-88.66	-58.82	-93.41	-56.40	-64.57	33.73	-88.34
VIDARBHA												
Buldhana	-50.63	-41.02	52.17	-86.07	-60.46	-95.29	200.00	-94.41	-50.42	-9.27	-68.18	-85.68
Akola	-40.22	-43.82	-10.98	-70.11	-54.86	-95.38	766.66	-81.94	-38.04	-41.78	-33.96	-75.24
Amaravati	-51.57	-19.02	-30.87	-72.89	-65.90	-89.42	336.36	-84.26	-53.92	12.76	-53.66	-75.92
Yavatmal	-30.33	-4.30	-45.00	-63.33	-46.89	-92.02	326.66	-81.92	-36.58	23.21	-56.69	-66.16
Wardha	-66.66	-40.00	25.00	-75.00	-79.31	-95.83	800.00	-92.24	-69.78	-45.23	45.65	-75.89
Nagpur	-64.12	-38.75	-65.30	-92.37	-68.62	-95.83	350.00	-94.11	-64.66	-40.60	-53.06	-90.14
Bhandara	-32.60	-83.87	20.00	-86.95	-44.44	-100.00	-	-94.44	-32.57	-62.71	-2.27	-75.42
Chandrapur	-62.20	-62.54	44.95	-79.48	-64.80	-97.02	800.00	-90.59	-58.55	-39.39	6.51	-73.24

Maharashtra (except Kolhapur), Vidarbha, (except Akola) and Marathwada (except Aurangabad, Parbhani). During the period from 1976-77 to 1980-81, Jalgaon, Ahmednagar, Solapur, Beed, Nanded, Osmanabad, Buldhana, Amaravati, Yavatmal and Nagpur showed increasing trend. Wardha, Nagpur, Bhandara, Chandrapur and Satara districts showed similar increasing trend during 1980-81 to 1985-86. Considering the total period of 15 years with the exception of Yavatmal district, the percentage of number of partly owned/rented holdings was declining in all the districts.

iii. Percentage change in the number of partly owned/rented semi-medium holdings:

In Aurangabad, Solapur, Osmanabad, Yavatmal, Satara and Wardha districts the percentage of number of partly owned/rented holdings in semi-medium class showed an increasing trend. In the remaining districts there was a declining trend throughout the period under consideration. During the period of 15 years (1970-71 to 1985-86), the percentage of number of holdings declined in the range of 3.22 per cent (Yavatmal) to 98.78 per cent (Jalgaon). In majority of the districts, the decline was above 70 per cent.

iv. Percentage change in the number of partly owned/rented medium holdings:

In most of the districts the percentage number of holdings in the category showed a declining trend the districts during the period from 1970-71 to 1985-86, in all districts except Osmanabad (1976-77 to 1980-81) Dhule, Wardha, Bhandara and Chandrapur (1980-81 to 1985-86). Considering the period of 15 years (1985-86 over 1970-71), the trend was declining in all the districts and it ranged from 55.05 per cent (Solapur) to 93.85 per cent (Sangli).

v. Percentage change in the number of partly owned/rented large holdings:

During the periods 1970-71 to 1976-77 and 1976-77 to 1980-81, the percentage number of partly owned/rented large holdings declined. The intensity of decrease was more during the second period, i.e., 1976-77 to 1980-81. It was above 90 per cent decline in all the districts except the districts in Konkan, Solapur, Sangli, Kolhapur, Osmanabad and Amaravati districts.

Considering the total period 15 years (1970-71 to 1985-86), the percentage of number of partly owned/rented holdings declined in the range of 81.92 per cent. (Yavatmal) to 97.33 per cent (Dhule) with the exception of Solapur district.

Thus, the number of partly owned/rented holdings in all size classes and at overall level was observed to be declining in all the districts during the period of 15 years. As mentioned in the previous chapter, the partly owned/rented holdings at the state level were 5.08 per cent of the total ownership holdings in 1970-71 which declined to 0.54 per cent 1985-86.

The district level analysis indicated that in 1985-86 Nasik, Dhule, Jalgaon, Sangli, Parbhani, Nanded, Buldhana, Wardha, Nagpur and Bhandara had less than 1000 holdings in this category. All the districts showed decline in the number of partly owned/rented holdings.

5.2.6 Changes in the Distribution of Area of the Partly Owned and Partly Rented Holdings in Different Districts:

The distribution of the area of partly owned/rented holdings by different size classes in different districts of Maharashtra during the 4 census years is presented in Table 5.23 and the same is explained below by size classes of holdings.

Table 5.23 Distribution of the area of partly owned/rented holdings by size-classes in different district of Maharashtra

(Area in thousand hectares)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	2.19 (19.59)	0.82 (3.69)	0.83 (7.52)	0.14 (3.65)	2.27 (20.30)	2.09 (9.41)	0.88 (7.97)	0.44 (11.49)	2.86 (25.58)	3.96 (17.83)	1.98 (17.93)	0.79 (26.63)
Eulaba	4.15 (22.61)	1.34 (4.71)	0.94 (11.26)	0.72 (10.36)	4.91 (26.76)	3.34 (11.73)	1.62 (19.40)	1.36 (19.57)	5.04 (27.47)	6.40 (22.48)	2.35 (28.14)	2.35 (33.81)
Ratnagiri	8.03 (32.41)	3.27 (5.30)	2.07 (7.28)	0.66 (4.61)	5.12 (20.66)	6.44 (10.45)	3.24 (11.40)	1.12 (7.81)	5.49 (22.16)	12.63 (20.49)	5.39 (18.97)	3.49 (24.35)
WESTERN MAHARASHTRA												
Nasik	0.41 (4.38)	0.12 (0.28)	0.41 (4.44)	0.01 (0.17)	0.71 (7.59)	0.53 (1.23)	0.37 (4.00)	0.89 (1.56)	1.74 (18.59)	2.85 (6.83)	1.49 (16.12)	0.61 (10.57)
Bhule	0.04 (0.19)	-	0.07 (7.22)	0.01 (1.12)	0.20 (0.94)	0.02 (0.45)	0.03 (3.09)	0.03 (3.37)	1.17 (5.52)	0.24 (5.44)	0.09 (9.28)	0.05 (5.62)
Jalgaon	0.07 (0.21)	0.02 (0.17)	0.10 (1.12)	-	0.40 (1.22)	0.19 (1.62)	0.30 (3.37)	0.03 (2.54)	2.39 (7.30)	0.83 (7.07)	1.00 (11.24)	0.03 (2.54)
Ahmednagar	0.17 (0.26)	0.20 (0.50)	1.23 (5.34)	0.08 (0.96)	0.98 (1.51)	0.79 (1.97)	1.42 (6.17)	0.54 (6.44)	4.63 (7.16)	4.30 (10.72)	4.68 (20.32)	1.96 (23.39)
Pune	0.54 (0.62)	0.42 (0.85)	1.10 (4.77)	0.13 (1.86)	2.30 (2.63)	1.38 (2.80)	1.71 (7.42)	0.42 (6.00)	8.11 (9.26)	5.28 (10.72)	1.91 (8.28)	1.16 (16.57)
Solapur	0.11 (0.19)	0.05 (0.14)	0.54 (1.97)	0.03 (0.20)	0.44 (0.77)	0.28 (0.78)	1.62 (5.91)	0.19 (1.25)	2.25 (3.93)	1.08 (3.83)	2.67 (9.75)	0.91 (5.99)
Satara	1.01 (1.72)	0.85 (2.81)	1.66 (15.96)	0.29 (4.17)	3.35 (5.72)	2.80 (9.24)	1.22 (11.73)	0.91 (13.07)	10.15 (17.33)	6.79 (22.42)	2.73 (20.48)	1.90 (27.30)
Sangli	0.52 (1.33)	0.31 (1.51)	1.09 (8.31)	0.13 (5.68)	1.91 (4.89)	1.10 (5.36)	0.93 (7.09)	0.24 (10.48)	5.81 (14.87)	3.18 (15.48)	2.28 (17.39)	0.36 (15.72)
Kolhapur	2.95 (2.91)	2.99 (3.61)	5.25 (15.91)	0.85 (6.58)	8.75 (8.62)	9.25 (11.17)	4.45 (13.49)	1.75 (13.54)	21.95 (21.64)	28.83 (25.16)	7.94 (24.06)	3.46 (26.78)
MARATHWADA												
Aurangabad	0.09 (0.08)	0.12 (0.15)	1.68 (4.97)	0.06 (0.60)	0.69 (0.51)	1.01 (1.24)	1.38 (4.08)	0.24 (2.42)	4.56 (3.95)	6.35 (7.79)	4.42 (13.08)	1.13 (11.38)
Parabhani	0.06 (0.07)	0.07 (0.20)	0.43 (4.18)	0.03 (0.69)	0.50 (0.53)	0.58 (1.68)	0.48 (4.67)	0.17 (3.88)	3.52 (3.76)	3.06 (8.83)	1.45 (14.10)	0.44 (10.85)
Beed	0.08 (0.09)	0.12 (0.28)	1.04 (4.60)	0.05 (0.38)	0.55 (0.58)	0.42 (0.97)	1.19 (5.27)	0.36 (2.74)	3.86 (4.09)	3.37 (7.75)	2.60 (11.50)	1.01 (7.69)
Wanded	0.06 (0.12)	0.07 (0.21)	1.56 (7.63)	0.04 (0.83)	0.56 (1.13)	0.27 (0.79)	1.63 (7.97)	0.16 (3.33)	3.32 (6.70)	1.61 (4.74)	2.99 (14.63)	0.66 (13.72)
Osmanabad	0.06 (0.06)	0.04 (0.11)	2.23 (5.78)	0.04 (0.45)	0.53 (0.52)	0.31 (0.80)	2.58 (6.69)	0.14 (1.58)	3.40 (3.32)	2.15 (5.56)	2.91 (7.55)	0.79 (8.92)
VIDARBHA												
Buldhana	0.06 (0.10)	0.31 (1.32)	1.13 (9.72)	0.03 (0.63)	0.42 (0.70)	0.39 (1.66)	1.01 (88.69)	0.18 (3.75)	2.85 (4.74)	1.80 (7.65)	1.81 (15.58)	0.58 (12.08)
Akola	0.05 (0.07)	0.14 (0.41)	0.92 (6.45)	0.02 (0.14)	0.52 (0.70)	0.83 (2.41)	0.97 (6.80)	0.15 (1.04)	3.03 (4.07)	2.14 (6.23)	1.70 (11.91)	0.90 (6.27)
Anaravati	0.10 (0.12)	0.06 (0.19)	2.07 (8.94)	0.02 (0.13)	0.84 (0.99)	0.72 (2.32)	1.69 (6.87)	0.24 (1.52)	4.81 (5.66)	2.40 (7.75)	2.57 (11.10)	1.85 (11.74)
Yavatmal	0.01 (0.01)	0.02 (0.03)	2.17 (6.86)	0.01 (0.05)	0.15 (0.15)	0.11 (0.20)	1.95 (6.16)	0.19 (1.01)	1.89 (1.95)	1.72 (3.16)	4.29 (13.56)	1.86 (9.86)
Wardha	0.02 (0.06)	0.01 (0.14)	0.09 (2.70)	0.01 (0.25)	0.11 (0.34)	0.07 (0.96)	0.10 (3.00)	0.08 (2.04)	0.98 (3.05)	0.42 (5.75)	0.30 (9.02)	0.60 (15.31)
Nagpur	0.03 (0.07)	0.03 (0.23)	0.16 (2.54)	0.02 (0.65)	0.27 (0.61)	0.15 (1.16)	0.31 (4.92)	0.13 (4.26)	2.03 (4.58)	0.74 (5.71)	0.75 (11.90)	0.24 (7.87)
Bhandara	0.14 (1.67)	0.09 (1.83)	0.25 (22.52)	0.06 (5.66)	0.57 (6.81)	0.40 (8.13)	0.13 (11.71)	0.25 (23.59)	1.38 (16.49)	0.94 (19.11)	0.30 (27.03)	0.27 (25.47)
Chandrapur	0.89 (0.75)	0.56 (1.29)	2.58 (14.41)	0.25 (1.12)	4.72 (4.00)	2.26 (5.20)	2.25 (12.51)	2.06 (9.27)	17.64 (14.95)	7.24 (16.65)	3.61 (20.17)	5.88 (26.45)

Table 5.23 (Continued....)

District	Medium				Large				Total			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	2.73 (24.42)	7.66 (34.49)	4.32 (39.13)	1.46 (38.12)	1.13 (10.11)	7.68 (34.58)	3.03 (27.45)	1.01 (26.11)	11.18 (100.00)	22.21 (100.00)	11.04 (100.00)	3.83 (100.00)
Kulaba	3.33 (18.15)	9.59 (33.68)	2.20 (26.35)	1.84 (26.48)	0.92 (5.01)	7.80 (27.40)	1.24 (14.85)	0.68 (9.78)	18.35 (100.00)	28.41 (100.00)	8.35 (100.00)	6.95 (100.00)
Ratnagiri	4.64 (18.72)	22.75 (36.90)	9.95 (35.01)	5.21 (36.36)	1.50 (6.05)	16.56 (26.86)	7.77 (27.34)	3.85 (26.87)	24.78 (100.00)	61.65 (100.00)	28.42 (100.00)	14.33 (100.00)
WESTERN MAHARASHTRA												
Nasik	4.01 (42.84)	17.56 (40.85)	5.82 (62.99)	2.71 (46.97)	2.49 (26.60)	21.93 (51.01)	1.15 (12.45)	2.35 (40.73)	9.36 (100.00)	42.99 (100.00)	9.24 (100.00)	5.77 (100.00)
Dhule	7.94 (37.49)	2.41 (54.65)	0.76 (78.35)	0.55 (61.80)	11.83 (55.86)	1.74 (39.46)	0.02 (2.06)	0.25 (28.09)	21.18 (100.00)	4.41 (100.00)	0.97 (100.00)	0.89 (100.00)
Jalgaon	11.88 (36.30)	5.54 (47.19)	4.59 (50.56)	0.72 (61.02)	17.99 (54.97)	5.16 (43.95)	3.00 (33.71)	0.40 (33.90)	32.73 (100.00)	11.74 (100.00)	8.90 (100.00)	1.18 (100.00)
Ahmednagar	24.11 (37.28)	14.72 (36.72)	12.25 (53.19)	3.48 (41.53)	34.79 (53.79)	20.08 (50.09)	3.45 (14.98)	2.32 (27.68)	64.68 (100.00)	40.09 (100.00)	23.03 (100.00)	8.38 (100.00)
Pune	30.10 (34.38)	17.04 (34.59)	15.39 (66.74)	2.51 (35.86)	46.51 (53.11)	25.14 (51.04)	2.95 (12.79)	2.78 (39.71)	87.56 (100.00)	49.26 (100.00)	23.06 (100.00)	7.00 (100.00)
Solapur	13.33 (23.27)	11.18 (31.33)	16.98 (61.97)	5.77 (37.98)	41.16 (71.84)	23.10 (64.72)	5.59 (20.40)	8.29 (54.58)	57.29 (100.00)	35.69 (100.00)	27.40 (100.00)	15.19 (100.00)
Satara	22.20 (37.90)	12.72 (41.99)	4.19 (40.29)	2.89 (41.52)	21.87 (37.33)	7.13 (23.54)	1.20 (11.54)	0.97 (13.94)	58.58 (100.00)	30.29 (100.00)	10.40 (100.00)	6.96 (100.00)
Sangli	15.22 (38.96)	7.29 (35.49)	6.78 (51.72)	0.83 (36.24)	15.61 (39.95)	8.66 (42.16)	2.03 (15.49)	0.73 (31.88)	39.07 (100.00)	20.54 (100.00)	13.11 (100.00)	2.29 (100.00)
Kolhapur	42.09 (41.48)	33.39 (40.33)	13.00 (39.39)	4.80 (37.15)	25.72 (25.35)	16.33 (19.73)	2.36 (7.15)	2.06 (15.95)	101.46 (100.00)	82.79 (100.00)	33.00 (100.00)	12.92 (100.00)
MARATHWADA												
Aurangabad	31.70 (27.48)	30.28 (37.17)	22.56 (66.75)	4.28 (43.10)	78.42 (67.98)	43.70 (53.65)	3.76 (11.12)	4.22 (42.50)	115.36 (100.00)	81.46 (100.00)	33.80 (100.00)	9.93 (100.00)
Parabhani	26.23 (28.01)	13.60 (39.26)	7.28 (70.82)	1.51 (34.47)	63.33 (67.63)	17.33 (50.03)	0.64 (6.23)	2.23 (50.91)	93.64 (100.00)	34.64 (100.00)	10.28 (100.00)	4.38 (100.00)
Beed	23.73 (25.15)	13.96 (32.12)	15.00 (66.37)	3.25 (24.76)	66.12 (70.09)	25.99 (58.88)	2.77 (12.26)	8.46 (64.43)	94.34 (100.00)	43.46 (100.00)	22.60 (100.00)	13.13 (100.00)
Wanded	19.80 (39.97)	10.97 (32.29)	13.14 (64.29)	2.28 (47.40)	25.80 (52.08)	9.45 (27.82)	1.12 (5.48)	1.67 (34.72)	49.54 (100.00)	33.97 (100.00)	20.44 (100.00)	4.81 (100.00)
Osmanabad	25.51 (24.89)	11.10 (28.71)	24.17 (62.70)	3.62 (40.86)	73.00 (71.21)	25.06 (64.82)	6.66 (17.28)	4.27 (48.19)	102.50 (100.00)	38.66 (100.00)	38.55 (100.00)	8.86 (100.00)
VIDARBHHA												
Buldhana	15.51 (25.82)	7.31 (31.07)	6.62 (56.97)	2.17 (45.21)	41.23 (68.64)	13.72 (58.30)	1.05 (9.04)	1.84 (38.33)	7.07 (100.00)	23.53 (100.00)	11.62 (100.00)	4.80 (100.00)
Akola	18.28 (24.57)	10.90 (31.72)	0.02 (63.21)	5.28 (36.77)	52.51 (70.59)	20.35 (59.23)	1.66 (11.63)	8.01 (55.78)	74.39 (100.00)	34.36 (100.00)	14.27 (100.00)	14.36 (100.00)
Anaravati	24.99 (29.41)	12.01 (38.77)	14.04 (60.65)	6.50 (41.24)	54.24 (63.82)	15.79 (50.97)	2.88 (12.44)	7.15 (45.37)	84.98 (100.00)	30.98 (100.00)	23.15 (100.00)	15.76 (100.00)
Yavatmal	20.21 (20.86)	21.85 (40.07)	19.23 (60.78)	7.24 (38.39)	74.63 (77.03)	30.83 (56.54)	4.00 (12.64)	9.56 (50.69)	96.89 (100.00)	54.53 (100.00)	31.64 (100.00)	18.86 (100.00)
Vardha	8.26 (25.71)	2.79 (38.22)	2.48 (74.47)	1.98 (50.51)	22.76 (70.84)	4.01 (54.93)	0.36 (10.81)	1.25 (31.89)	32.13 (100.00)	7.30 (100.00)	3.33 (100.00)	3.92 (100.00)
Nagpur	14.68 (33.12)	5.27 (40.66)	4.44 (70.48)	1.14 (37.38)	27.31 (61.62)	6.77 (52.24)	0.64 (10.16)	1.52 (49.84)	44.32 (100.00)	12.96 (100.00)	6.30 (100.00)	3.05 (100.00)
Bhandara	2.72 (32.50)	1.89 (38.41)	0.43 (38.74)	0.33 (31.13)	3.56 (42.53)	1.60 (32.52)	-	0.15 (14.15)	8.37 (100.00)	4.92 (100.00)	1.11 (100.00)	1.06 (100.00)
Chandrapur	47.87 (40.57)	18.28 (42.03)	8.61 (48.10)	9.50 (42.74)	46.88 (39.73)	15.15 (34.83)	0.85 (4.75)	4.54 (20.42)	118.00 (100.00)	43.49 (100.00)	17.90 (100.00)	22.23 (100.00)

Note: Figures in the parentheses indicate percentages to the total of the district.

i. Changes in the area of partly owned/rented marginal holdings:

The area of partly owned/rented marginal holdings showed different trends. It was a mixed trend during 1970-71 to 1976-77, higher increasing trend during 1976-77 to 1980-81 and sharply negative trend during 1980-81 to 1985-86 in districts of Western Maharashtra, Marathwada and Vidarbha. A continuous declining trend for the above three periods and for the total period of 15 years (1970-71 to 1985-86) was noted in the districts of Konkan region. A significant increase was observed in Yavatmal (10750.00 per cent) during 1976-77 to 1980-81.

The proportionate share of partly owned/rented marginal holdings was less than one per cent during 1970-71 to 1976-77 and 1985-86 census years in all the districts except Thana, Kulaba, Ratnagiri, Nasik, Satara, Sangli, Kolhapur and Bhandara.

Considering the change in 1985-86 as compared to that in 1970-71, it remained unchanged in Yavatmal districts while there was a total decline in Jalgaon district.

ii. Change in the area of partly owned/rented small holdings:

The area of partly owned/rented holdings showed increase in some districts and decline in others in the periods ending 1976-77 and 1980-81 as compared to the respective previous censuses. In Thana, Kulaba, Nasik, Satara and Chandrapur districts, there was a continuous declining trend for different census years as compared to the previous ones and also for the total period.

Considering the period from 1970-71 to 1985-86, census year the area showed decline in all districts of the state except Yavatmal.

iii. Changes in the area of partly owned/rented semi-medium holdings:

The area of partly owned/rented semi-medium holdings declined in 1976-77 as compared to that in 1970-71 in all districts of Vidarbha, Marathwada (except Aurangabad) and Western Maharashtra (except Nasik). The area more than doubled in Solapur and Yavatmal districts during 1980-81 as compared to that in 1976-77. There was a further decline during 1980-81 in Thana, Kulaba, Ratnagiri, Dhule, Satara, Kolhapur, Parbhani, Nanded, Bhandara and Chandrapur districts. In 1985-86 the area remained unchanged in Kulaba and doubled in Wardha over previous census.

The area declined in all the districts during 1985-86 as compared to that in 1970-71.

iv. Change in the area of partly owned/rented medium holdings:

The area of partly owned/rented holdings showed increase during 1976-77 over 1970-71 in Konkan region, Nasik and Yavatmal districts. In the remaining districts a declining trend was observed. In 1980-81, all the districts showed decline in the area except Beed, Nanded, Osmanabad (Marathwada), Solapur and Amaravati over that in 1976-77. All the districts except Chandrapur showed a decrease in the area during 1985-86 as compared to that in 1980-81. The comparison of area during 1985-86 with 1970-71 indicated that only Ratnagiri district had an increase.

v. Change in the area of partly owned/rented large holdings:

The area of partly owned/rented large holdings showed decline in all the districts during 1976-77 (except Konkan region and Nasik) and also during 1980-

81 as compared to the respective previous census years. During 1985-86, the trend was mixed one as the area increased in some districts and declined in others as compared with the area during 1980-81.

The proportion of the large holdings in the total area under the category was above 50 per cent in all the districts except Konkan region, Nasik, Sangli, Satara, Kolhapur, Bhandara and Chandrapur districts during 1970-71. It sharply declined in 1976-77 and 1980-81 to the level of less than 15 per cent in all the districts except the districts of Konkan region, Solapur and Sangli. Again it increased during 1985-86 and ranged from 9.78 per cent (Kulaba) to 64.43 per cent (Beed) of the district totals.

An attempt has been made to calculate percentage change in the area of partly owned/rented holdings by size classes of holdings in different districts. The results are presented in Table 5.24 and explained below by size classes of holdings.

i. Percentage change in the area of partly owned/rented marginal holdings:

During 1970-71 to 1976-77 the area of partly owned/rented marginal holdings was observed to be increasing in Ahmednagar, Kolhapur, Buldhana, Akola, Yavatmal districts and in all districts of Marathwada (except Osmanabad). It remained unchanged in Nagpur district and declined by 100 per cent in Dhule. During 1976-77 to 1980-81, all the districts except Kulaba, Ratnagiri, Dhule showed an increasing trend in the area. A drastic increase in the percentage area was observed in Yavatmal district (10750 per cent). It was followed by Osmanabad (5475 per cent), Amaravati (3350 per cent), Nanded (2128.57 per cent), Jalgaon (400 per cent) and Aurangabad (1300 per cent) districts.

Considering the total period of 15 years, the percentage area in the category showed a declining trend in all the districts which ranged from 33.33

Table 5.24 Percentage change in the area of partly owned/rented holdings by size-classes for different census periods in different districts of Maharashtra.

District	Marginal				Small				Semi Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
KONKAN												
Thana	-62.55	1.21	-83.13	-93.60	-7.92	-57.89	-50.00	-80.61	38.46	-50.00	-60.10	-72.37
Kulaba	-67.71	-29.85	-23.40	-82.65	-31.97	-51.49	-16.04	-72.30	26.98	-63.28	-	-53.37
Ratnagiri	-59.27	-36.69	-68.11	-91.78	25.78	-49.68	-65.43	-78.12	130.05	-57.32	-35.25	-36.42
WESTERN MAHARASHTRA												
Nasik	-70.73	241.66	-97.56	-97.56	-25.35	-30.18	-75.67	-87.32	63.79	-47.71	-59.06	-64.94
Dhule	-100.00	-	-85.71	-75.00	-90.00	50.00	-	-85.00	-79.48	-62.50	-44.44	-95.72
Jalgaon	-71.42	400.00	-100.00	-100.00	-52.50	57.89	-90.00	-92.50	-65.27	20.48	-97.61	-98.74
Ahmednagar	17.64	515.00	-93.49	-52.94	-19.38	79.74	-61.97	-44.89	-7.12	8.83	-58.11	-57.66
Pune	-22.22	161.90	-88.18	-75.92	-40.00	23.91	-75.43	-81.73	-34.89	-63.82	-39.26	-85.69
Solapur	-54.54	980.00	-94.44	-72.72	-36.36	478.57	-88.27	-56.81	-52.00	147.22	-65.91	-59.55
Satara	-15.84	95.29	-82.53	-71.28	-16.41	-56.42	-25.40	-72.83	-33.10	-59.79	-10.79	-81.28
Sangli	-40.38	251.61	-88.07	-75.00	-42.40	-15.45	-74.19	-87.43	-45.26	-28.30	-84.21	-93.80
Kolhapur	1.35	75.58	-83.80	-71.18	5.71	-51.89	-60.67	-80.00	-5.10	-61.88	-56.42	-84.23
MARATHWADA												
Aurangabad	33.33	1300.00	-96.42	-33.33	71.18	36.63	-82.60	-59.32	39.25	-30.39	-74.43	-75.21
Parabhani	16.66	514.28	-93.02	-50.00	16.00	-17.24	-64.58	-66.00	-13.06	-52.61	-69.65	-87.50
Beed	50.00	766.66	-95.19	-37.50	-23.63	183.33	-69.74	-34.54	-12.69	-22.84	-61.15	-73.83
Wanded	16.66	2128.57	-97.43	-33.33	-51.78	503.70	-90.18	-71.42	-51.50	85.71	-77.92	-80.12
Oswanabad	-33.33	5475.00	-98.20	-33.33	-41.50	532.25	-94.57	-73.58	-36.76	35.34	-72.85	-76.76
VIDARBHA												
Buldhana	416.66	264.51	-97.34	-50.00	-7.14	158.97	-82.17	-57.14	-36.84	0.55	-67.95	-79.64
Akola	180.00	557.14	-97.82	-60.00	59.61	16.86	-84.53	-71.15	-29.37	-20.56	-47.05	-70.29
Anaravati	-40.00	3350.00	-99.03	-80.00	-14.28	120.83	-94.90	-71.42	-50.10	7.08	-28.01	-61.53
Yavatmal	100.00	10750.00	-99.53	-	-26.66	1672.72	-90.25	26.66	-8.99	149.41	-56.64	-1.58
Wardha	-50.00	800.00	-88.88	-50.00	-36.36	42.85	-20.00	-27.27	-57.14	-28.57	100.00	-38.77
Hagpur	-	433.33	-87.50	-33.33	-44.44	106.66	-58.06	-51.85	-63.54	1.35	-68.00	-88.17
Bhandara	-35.71	177.77	76.00	-57.14	-29.82	-67.50	92.30	-56.15	-31.88	-68.08	-10.00	-80.43
Chandrapur	-37.07	360.71	-90.31	-71.91	-52.11	-0.44	-8.44	-56.35	-58.95	-50.13	62.88	-66.66

Table 5.24 (Continued....)

District	Medium				Large				Over All			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
KONKAN												
Thana	180.58	-43.60	-66.20	-46.52	579.64	-60.54	-66.99	-11.50	98.65	-50.29	-65.30	-65.74
Kulaba	187.98	-77.05	-16.36	-44.74	747.82	-84.10	-45.16	-26.08	55.14	-70.67	-16.76	-62.12
Batnagiri	390.30	-56.26	-47.63	12.28	1004.00	-53.07	-50.45	156.66	148.78	-53.90	-49.57	-42.17
WESTERN MAHARASHTRA												
Nasik	337.90	-66.85	-53.43	-32.41	780.72	-94.75	104.34	-5.62	359.29	-78.50	-37.55	-38.35
Dhule	-69.64	-68.46	-27.63	-93.07	-85.29	-98.85	1150.00	-97.88	-79.17	-78.00	-8.24	-95.79
Jalgaon	-53.36	-18.77	-84.00	-93.93	-71.31	-41.86	-86.66	-97.77	-64.13	-24.19	-86.74	-96.39
Ahmednagar	-38.94	-16.77	-71.59	-85.56	-42.28	-82.81	-32.75	-93.33	-38.01	-42.55	-63.61	-87.04
Pune	-43.38	-9.58	-83.69	-91.66	-45.95	-88.26	-5.76	-94.02	-43.74	-53.18	-69.64	-92.00
Solapur	-16.12	51.87	-71.12	-56.71	-43.87	-75.80	48.30	-79.85	-37.70	-23.22	-44.56	-73.48
Satara	-42.70	-67.05	-31.02	-86.98	-67.39	-83.16	-19.16	-95.56	-48.29	-65.66	-33.07	-88.11
Sangli	-52.10	-6.99	-87.75	-94.54	-44.52	-76.55	-64.03	-95.32	-47.42	-36.17	-82.53	-94.13
Kolhapur	-20.67	-61.06	-63.07	-88.59	-36.50	-85.54	-12.71	-91.99	-18.40	-7.14	-60.84	-87.26
MARATHWADA												
Aurangabad	-4.47	-25.49	-81.02	-86.49	-44.27	-91.39	12.23	-94.61	-29.38	-58.50	-70.62	-91.39
Parabhani	-48.15	-46.47	-79.25	-94.24	-72.63	-96.30	248.43	-96.47	-63.00	-70.32	-57.39	-95.32
Beed	-41.17	7.44	-78.33	-86.30	-62.81	-88.73	205.41	-87.20	-53.93	-47.99	-41.90	-86.08
Wanded	-44.59	19.78	-82.64	-88.48	-63.37	-88.14	49.10	-93.52	-31.42	-39.82	-76.46	-90.29
Osmanabad	-56.48	117.74	-85.02	-85.80	-65.67	-73.42	-35.88	-94.15	-62.28	-0.28	-77.01	-91.35
VIDARBHA												
Buldhana	-52.86	-9.56	-67.22	-86.00	-66.72	-92.34	75.23	-95.53	-60.82	-50.61	-58.69	-92.00
Akola	-40.37	-17.24	-41.46	-71.11	-61.24	-91.84	382.53	-84.74	-53.81	-58.46	-0.63	-80.69
Amaravati	-51.94	16.90	-53.70	-73.98	-70.88	-81.76	148.26	-86.81	-63.54	-25.27	-31.92	-81.45
Yavatmal	8.11	-12.03	-62.35	-64.17	-58.68	-87.02	139.00	-87.19	-43.71	-41.97	-40.39	-80.53
Wardha	-66.22	-11.11	-20.16	-76.02	-82.38	-91.02	247.22	-94.50	-77.27	-54.38	17.71	-87.79
Hugpur	-64.10	-15.74	-74.32	-92.23	-75.21	-90.54	137.50	-94.43	-70.75	-51.38	-51.58	-93.11
Bhandara	-30.51	-77.24	-23.25	-87.86	-55.05	-100.00	-	-95.78	-41.21	-77.43	-4.50	-87.33
Chandrapur	-61.81	-52.89	10.33	-80.15	-67.68	-94.38	434.11	-90.31	-63.14	-58.84	24.18	-81.16

per cent (Aurangabad, Nanded, Osmanabad and Nagpur) to 100.00 per cent (Jalgaon).

ii. Percentage change in the area of partly owned/rented small holdings:

During the period under consideration (4 censuses) a continuous declining trend in the area was observed in Thana, Kulaba (Konkan), Nasik, Satara, Sangli (Western Maharashtra) and Chandrapur district (Vidarbha).

During 1970-71 to 1976-77, all the districts except Ratnagiri, Kolhapur, Aurangabad, Parbhani and Akola showed decreasing trend. During 1976-77 to 1980-81 in addition to the above mentioned districts, Kolhapur and Parbhani also showed a negative trend. During 1980-81 to 1985-86, all the districts (except Dhule and Bhandara) showed a negative trend.

During the period of 15 years (1970-71 to 1985-86), in all the districts the area of partly owned/rented small holdings declined.

iii. Percentage change in the area of partly owned/rented semi-medium holdings:

The percentage of area of partly owned/rented semi-medium holdings showed a mixed trend during the period of four censuses.

During 1970-71 to 1976-77, all the districts except Konkan region, Nasik and Aurangabad showed a declining trend. A drastic increase during 1976-77 to 1980-81 was noted for Solapur (147.22 per cent) and Yavatmal (149.41 per cent) districts; while Pune district showed a decline (63.82 per cent). All the districts showed decline in the area during 1980-81 to 1985-86 (except Wardha and Chandrapur) showed increasing trend while Kulaba district remained unchanged.

During 1970-71 to 1985-86, all the districts showed a declining percentage in the area.

iv. Percentage change in the area of partly owned/rented medium holdings:

The area of partly owned/rented medium holdings during 1970-71 to 1976-77 showed an increase above 300 per cent in Ratnagiri and Nasik, above 100 per cent in Thana and Kulaba and 8.11 per cent in Yavatmal. In the remaining districts, there was a decline which ranged from 4.47 per cent (Aurangabad) to 69.64 per cent (Dhule). The declining trend in the area continued in all the districts during 1976-77 to 1980-81 (except Solapur, Beed, Nanded, Osmanabad, Amaravati) and during 1980-81 to 1985-86 (except Chandrapur district).

Considering the period from 1970-71 to 1985-86, the percentage of area under medium holdings declined under all the districts except Ratnagiri. It ranged from 32.41 per cent in Nasik to 94.54 per cent in Sangli.

v. Percentage change in the area of partly owned/rented large holdings:

In all the districts except Konkan region and Nasik districts the area of partly owned/rented large holdings was observed to be declined during the period from 1970-71 to 1976-77, 1976-77 to 1980-81 and 1980-81 to 1985-86.

During the period of 15 years, the decline in the percentage area was above 90 per cent in all the district except Thana, Kulaba, Nasik, Solapur, Beed, Akola, Amaravati and Yavatmal.

In Summary, it can be seen that the area of partly owned/rented holdings showed drastically declining trend for all the size classes in all the districts (except Thana, Kulaba, Ratnagiri and Nasik) during the period from 1970-71 to 1985-86. The proportionate share of medium and large holdings was above 50 to 80 per cent for all the four census years. The area of marginal holdings was nil in Jalgaon district, less than 100 hectares in Nasik, Dhule, Ahmednagar, Solapur (Western Maharashtra) and all the districts of Marathwada, Vidarbha regions.

Considering the percentage decline during 1970-71 to 1985-86, it was above 80 per cent in all the districts, except Thana, Kulaba, Ratnagiri and Nasik districts. Among the size classes the decline was largest in the large size group followed by medium size group.

5.3 REGION-WISE ANALYSIS OF OPERATIONAL HOLDINGS:

Districtwise analysis indicated that there were some peculiarities in the structural distribution of holdings in few districts belonging to a particular region. In view of this, an attempt has been made here to analyse the region-wise distribution and changes therein in the operational holdings.

The changes in the number and area of operational holdings by size classes in the four regions of Maharashtra, viz., Konkan, Western Maharashtra, Marathwada and Vidarbha for the four census years are presented in Table 5.25.

i. Changes in the operational holdings in Konkan Region:

The total number of operational holdings in Konkan increased from 7.10 lakh to 10.02 lakh during the period from 1970-71 to 1985-86 with the area increase from 18.43 lakh hectares to 19.06 lakh hectares. The number and area of marginal, small and semi-medium operational holdings showed increasing trend during the period of 4 census years except negligible decline in the area of semi-medium holding during 1980-81 to 1985-86. The large holdings showed a declining trend while the medium holdings showed a mixed trend. The proportion of number of operational holdings showed a clear declining trend for medium and large holdings whereas a clear increasing trend for semi-medium holding during the period of 4 census years. The proportion of area showed an increasing trend for marginal and small holdings, and a declining trend for large

Table 5.25 Distribution of number and area of operational holdings in different regions of Maharashtra (1970-71, 1976-77, 1980-81, 1985-86)

(Figures in thousands)

Size classes of holding	Number of operational holdings				Area of operational holdings (hectares)			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN								
Marginal	345.78 (48.64)	372.90 (49.38)	430.84 (50.22)	474.58 (47.33)	131.28 (7.12)	142.36 (7.73)	175.30 (9.01)	178.54 (9.38)
Small	123.85 (17.42)	137.16 (18.16)	156.38 (18.23)	174.52 (17.41)	178.19 (9.67)	196.88 (10.69)	231.61 (11.90)	249.73 (13.12)
Semi-medium	113.13 (15.92)	119.18 (15.78)	139.03 (16.21)	225.50 (22.49)	320.75 (17.40)	338.09 (18.36)	391.42 (20.11)	376.64 (19.79)
Medium	94.34 (13.27)	94.49 (12.51)	101.79 (11.83)	101.12 (10.08)	580.60 (31.50)	576.10 (31.29)	617.71 (31.74)	615.57 (32.33)
Large	33.77 (4.75)	31.50 (4.17)	29.89 (3.48)	26.98 (2.69)	632.24 (34.31)	587.80 (31.93)	530.06 (27.24)	483.15 (25.38)
Total	710.87 (100.00)	755.23 (100.00)	857.93 (100.00)	1002.70 (100.00)	1843.06 (100.00)	1841.23 (100.00)	1946.10 (100.00)	1906.63 (100.00)
WESTERN MAHARASHTRA								
Marginal	569.87 (26.90)	700.04 (28.94)	884.65 (31.61)	1225.63 (35.47)	266.39 (3.17)	318.52 (3.79)	437.18 (5.23)	592.15 (7.03)
Small	388.57 (18.34)	476.97 (19.73)	604.47 (21.60)	871.13 (25.21)	568.18 (6.77)	698.64 (8.31)	924.04 (11.05)	1318.61 (15.65)
Semi-medium	468.56 (22.12)	551.56 (22.78)	656.17 (23.45)	784.74 (22.71)	1349.30 (16.07)	1566.96 (18.65)	1881.11 (22.49)	2229.71 (26.46)
Medium	501.89 (23.69)	528.07 (21.83)	531.61 (18.99)	483.92 (14.01)	3130.47 (37.28)	3237.62 (38.53)	3241.41 (38.76)	2867.19 (34.03)
Large	189.51 (8.95)	162.47 (6.72)	121.85 (4.35)	89.68 (2.60)	3083.58 (36.71)	2580.95 (30.72)	1879.12 (22.47)	1418.35 (16.83)
Total	2118.40 (100.00)	2419.31 (100.00)	2798.75 (100.00)	3455.10 (100.00)	8397.92 (100.00)	8402.69 (100.00)	8362.86 (100.00)	8426.06 (100.00)
MARATHWADA								
Marginal	82.08 (9.14)	141.76 (12.34)	203.59 (14.47)	343.06 (18.91)	46.84 (0.86)	81.20 (1.49)	126.53 (2.31)	205.98 (3.62)
Small	119.05 (13.26)	204.88 (17.83)	302.10 (21.47)	496.56 (27.37)	177.74 (3.28)	302.41 (5.56)	470.20 (8.58)	791.41 (13.91)
Semi-medium	213.83 (23.82)	305.58 (26.60)	409.95 (29.13)	537.60 (29.64)	627.23 (11.55)	883.27 (16.23)	1184.25 (21.60)	1502.66 (26.41)
Medium	323.55 (36.05)	373.61 (32.52)	404.22 (28.72)	380.76 (20.99)	2080.85 (38.32)	2333.80 (42.89)	2471.32 (45.08)	2317.88 (40.74)
Large	159.11 (17.73)	123.04 (10.71)	87.43 (6.21)	55.99 (3.09)	2497.41 (45.99)	1840.74 (33.83)	1229.68 (22.43)	871.28 (15.32)
Total	897.62 (100.00)	1148.87 (100.00)	1407.29 (100.00)	1813.97 (100.00)	5430.67 (100.00)	5441.42 (100.00)	5481.98 (100.00)	5689.21 (100.00)
VIDARBHA								
Marginal	231.56 (19.13)	288.80 (20.07)	405.72 (22.57)	444.32 (22.70)	135.23 (2.45)	163.45 (2.98)	243.01 (4.35)	258.20 (4.70)
Small	246.34 (20.35)	322.76 (22.44)	478.26 (26.60)	561.23 (28.68)	359.91 (6.54)	477.24 (8.72)	718.63 (12.86)	824.84 (15.02)
Semi-medium	291.63 (24.09)	362.84 (25.22)	481.14 (26.76)	506.93 (25.91)	832.88 (15.12)	1031.68 (18.84)	1358.12 (24.31)	1396.56 (25.42)
Medium	309.27 (25.54)	355.55 (24.72)	353.77 (19.68)	381.21 (19.48)	1924.82 (34.95)	2190.07 (39.99)	2140.86 (38.32)	2111.72 (38.44)
Large	131.93 (10.89)	108.55 (7.55)	78.92 (4.39)	63.16 (3.23)	2259.43 (40.94)	1613.96 (29.47)	1126.06 (20.18)	901.86 (16.42)
Total	1210.73 (100.00)	1438.50 (100.00)	1797.81 (100.00)	1956.85 (100.00)	5507.27 (100.00)	5476.40 (100.00)	5586.68 (100.00)	5493.18 (100.00)

Note: Figures in the parentheses indicate percentage to the total of respective region

holdings during the period of 4 census years. Medium holdings and semi-medium holdings showed a mixed trend.

ii. Changes in the operational holdings in Western Maharashtra Region:

In Western Maharashtra the total operational holdings increased from 21.18 lakh in 1970-71 to 34.55 lakh in 1985-86 while the area increased from 83.97 lakh hectares to 84.26 lakh hectares in the respective years. The number and area of operational holdings for size groups below 10 hectares showed a clear increasing trend, while the medium size group showed a declining trend during the period of four census years. The proportionate share of number in marginal and small size groups increased from 26.90 per cent and 18.34 per cent in 1970-71 to 35.47 and 25.21 per cent in 1985-86. The medium and large size group showed a proportionate number decline from 23.69 and 8.95 per cent in 1970-71 to 14.01 and 2.60 per cent in 1985-86. The semi-medium holdings increased upto 1980-81 and declined in 1985-86.

The proportion of area showed sharp decline in the large size group and increasing trend in the remaining size groups during the period of 4 census years except medium size group for 15 years period. The inequality in land distribution was very high in 1970-71. As many as 45.24 per cent of the total holdings below 2 hectares operated an area of only 9.94 per cent of the total. The picture in 1985-86 was 60.68 per cent of the total holdings operated an area of 22.68 per cent of the total.

iii. Changes in the operational holdings in Marathwada Region:

The number of operationa holdings in Marathwada region doubled during the 15 years (1970-71 to 1985-86) period. The number of marginal and small

holdings were quadrupled, the semi-medium holdings increased 2.5 times while there was slight increase in the medium size group. The large holdings depleted by two-third during the period from 1970-71 to 1985-86. The area of operational holdings by size classes showed similar trend as number of holdings during the period of four census years under reference. The inequality in land distribution was the largest. The marginal holdings which were of 9.14 per cent of the total operated only 0.86 per cent of the total area; while the large holdings which were 17.73 per cent operated 45.99 per cent of the total area during 1970-71. However, during the period of 15 years, the inequality was reduced to some extent as the large holdings declined to 3.09 per cent of the total and the area declined to 15.32 per cent of the total in 1985-86.

**iv. Changes in operational holdings
in Vidarbha region:**

The number of operational holdings in Vidarbha region increased from 12.10 lakh in 1970-71 to 19.56 lakh in 1985-86. The area showed marginal decline in 1976-77 and again increase in 1980-81. It again declined in 1985-86.

The proportion of number of marginal and small operational holdnigs showed increasing trend where as the medium and large size groups showed declining trend during the period of four censuses. The number and area of operational holdings showed a clear increasing trend in marginal, small and semi-medium holdings. The large holdings showed a clear declining trend and the medium size group showed a mixed trend. The proportion of area under marginal, small, semi-medium size groups was observed to be increasing while that in the large size group declined from 40.94 per cent in 1970-71 to 16.42 per cent in 1985-86.

The inequality in land distribution which existed in 1970-71 was found to be declining in this region. The large size group having 10.89 per cent of the

total number of holdings operated an area of 40.94 per cent of the total in 1970-71 declined to 3.23 per cent and 16.42 per cent respectively in 1985-86.

Comparing the number and area of the operational holdings in the four region of the state, the Western Maharashtra was at leading position for number of holdings as well as their area during the period of four census years followed by Vidarbha, Marathwada and Konkan. In respect of changes, the Marathwada region was leading. It was followed by Western Maharashtra, Vidarbha and Konkan. Regarding the changes by size classes both the number and area of marginal and small holdings were more than quadrupled in Marathwada, more than doubled in Western Maharashtra.

Considering the number of operational holdings with their area for 4 censuses under study in the regions of Maharashtra, Marathwada region showed more than four time increase in marginal and small sized holdings followed by more than more than two fold increase in Western Maharashtra, Vidarbha regions. However, increase was the least in Konkan. Similarly, the decline in number and area of large size group was to the extent of two-third in Marathwada region, more than half in Western Maharashtra and Vidarbha regions whereas about one-fifth in Konkan region. Thus, there were least changed in the Konkan region. In this region, the small holdings were already more prior to 1970. the highest changes were noted in Marathwada region where there was a preponderance of large holdings upto 1970. Another peculiarity of the changes in Marathwada for marginal and small sized operational holdings was that the increase in number and area during the period from 1980-81 to 1985-86 was double than that during 1970-71 to 1976-77 or the period form 1976-77 to 1980-81. In other words, the increase in number and area of marginal and small size groups during the period from 1980-81 to 1985-86 was more than that during 1970-71 to 1980-81. During the period from 1976-77 to 1980-81, in Vidarbha drastic increase in number and

area of marginal, small and semi-medium holdings took place. This may be due to political unawareness and half-hearted implementation of land reform measures in Marathwada and Vidarbha regions as compared to that in Western Maharashtra. In Konkan, there was already a preponderance of small holdings and as such the changes in number and area of operational holdings were marginal. As regards Western Maharashtra, though the change in both number and area of operational holdings was at increasing rate for successive censuses, there was less difference from period to period.

5.4 AVERAGE SIZE OF OPERATIONAL HOLDINGS:

5.4.1 Changes in the Average Size of Operational Holdings in Different Districts:

The changes in average size of operational holding by size classes during the four census periods in different districts is given in Table 5.26. The results are explained below by size classes of holdings.

i. Changes in the average size of marginal holdings:

Increasing trend in the average size of marginal holdings for four censuses (1970-71, 1976-77, 1980-81, 1985-86) was observed in Akola, Wardha, Nagpur (Vidarbha region) and Nanded (Marathwada). In Bhandara it was constant (0.47 ha) for all the years. In Ratnagiri district, the average size was 0.33, 0.34, 0.37 and 0.33 ha for 1970-71, 1976-77, 1980-81 and 1985-86, respectively which was the lowest amongst the districts of the state. The average size was as high as 0.66 ha for 1970-71 in Amaravati and Yavatmal districts, 0.70 ha in 1976-77 in Wardha district, 0.78 ha in 1980-81 in Yavatmal and 0.73 ha for 1985-86 in Wardha district. In the remaining districts it was above 0.40 ha.

Table 5.26 Average size of operational holding by size-classes in different district of Maharashtra (1970-71 to 1985-86)

(Area in hectares)

District	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	0.41	0.41	0.44	0.40	1.43	1.43	1.50	1.39	2.81	2.82	2.84	2.75
Kulaba	0.43	0.43	0.44	0.42	1.42	1.41	1.43	1.42	2.79	2.77	2.67	2.79
Ratnagiri	0.33	0.34	0.37	0.33	1.44	1.44	1.49	1.44	2.86	2.86	2.86	2.85
WESTERN MAHARASHTRA												
Nasik	0.49	0.48	0.64	0.51	1.48	1.46	1.72	1.47	2.90	2.91	2.92	2.80
Dhule	0.56	0.56	0.63	0.57	1.47	1.46	1.50	1.43	2.93	2.87	2.85	2.73
Jalgaon	0.56	0.55	0.59	0.58	1.46	1.49	1.52	1.51	2.86	2.84	2.90	2.86
Ahmednagar	0.52	0.50	0.54	0.63	1.46	1.47	1.60	1.78	2.89	2.88	2.88	3.03
Pune	0.46	0.45	0.49	0.46	1.45	1.44	1.43	1.46	2.88	2.87	2.84	2.83
Solapur	0.49	0.48	0.53	0.55	1.47	1.48	1.53	1.48	2.90	2.89	2.90	2.80
Satara	0.45	0.45	0.46	0.44	1.45	1.46	1.46	1.44	2.86	2.83	2.83	2.78
Sangli	0.43	0.41	0.43	0.43	1.45	1.44	1.52	1.47	2.84	2.85	2.83	2.81
Kolhapur	0.42	0.40	0.43	0.40	1.44	1.44	1.45	1.43	2.81	2.51	2.77	2.76
MARATHWADA												
Aurangabad	0.57	0.56	0.63	0.59	1.48	1.50	1.63	1.48	2.93	2.88	2.91	2.80
Parabhani	0.57	0.57	0.66	0.59	1.49	1.47	1.55	1.46	2.95	2.89	2.86	2.83
Beed	0.55	0.54	0.57	0.55	1.48	1.46	1.49	1.48	2.93	2.89	2.86	2.83
Wanded	0.56	0.58	0.61	0.65	1.48	1.44	1.50	1.36	2.91	2.86	2.84	2.58
Osmanabad	0.59	0.60	0.63	0.62	1.49	1.49	1.56	1.41	2.93	2.90	2.94	2.89
VIDARBA												
Buldhana	0.62	0.61	0.68	0.62	1.45	1.47	1.50	1.45	2.83	2.82	2.79	2.77
Akola	0.64	0.66	0.67	0.69	1.46	1.51	1.58	1.46	2.85	2.83	2.80	2.80
Anaravati	0.66	0.67	0.69	0.67	1.46	1.49	1.52	1.45	2.83	2.83	2.88	2.78
Yavatmal	0.66	0.68	0.78	0.66	1.50	1.48	1.54	1.57	2.90	3.03	2.87	2.79
Wardha	0.65	0.70	0.72	0.73	1.47	1.51	1.41	1.46	2.87	2.85	2.79	2.81
Nagpur	0.59	0.62	0.62	0.63	1.47	1.47	1.49	1.54	2.90	2.86	2.99	2.82
Bhandara	0.47	0.47	0.47	0.47	1.43	1.42	1.45	1.40	2.78	2.79	2.75	2.75
Chandrapur	0.51	0.52	0.57	0.54	1.46	1.46	1.45	1.44	2.86	2.82	2.77	2.75

Table 5.26 (Continued....)

District	Medium				Large				Overall			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
KONKAN												
Thana	6.20	6.09	6.04	6.13	17.98	18.02	15.52	17.23	2.82	2.57	2.31	2.03
Kulaba	6.00	6.04	6.11	5.95	20.29	19.25	17.86	17.13	2.10	1.89	1.70	1.70
Batnagiri	6.18	6.11	6.06	6.11	18.63	18.76	18.50	18.27	2.74	2.65	2.52	1.93
WESTERN MAHARASHTRA												
Nasik	6.29	6.23	6.04	6.03	15.67	15.30	13.29	14.80	4.68	4.12	3.62	3.02
Dhule	6.29	6.18	6.27	5.84	14.80	14.52	15.42	14.27	4.85	4.44	3.68	2.54
Jalgaon	6.11	6.00	5.95	5.83	15.37	14.00	14.10	13.57	3.74	3.14	3.16	2.54
Ahmednagar	6.30	6.10	6.06	5.86	16.70	15.97	15.83	16.99	5.16	4.86	3.31	2.77
Pune	6.26	6.16	6.05	5.82	16.59	16.27	15.81	16.30	4.07	3.56	3.13	2.68
Solapur	6.38	6.30	6.27	6.14	16.69	22.47	15.69	15.17	5.85	5.35	4.64	3.79
Sangli	6.08	5.93	5.96	5.82	16.27	16.55	17.38	19.84	2.69	2.39	1.99	1.61
Satara	6.17	6.14	6.24	5.95	16.95	16.10	15.71	15.21	3.35	2.99	2.57	2.04
Kolhapur	5.95	5.82	5.78	5.80	16.57	20.13	17.72	21.20	2.02	1.78	1.55	1.33
MARATHWADA												
Aurangabad	6.42	6.20	6.12	5.92	15.46	14.13	13.42	14.23	6.02	4.65	3.93	2.90
Parabhani	6.47	6.23	5.98	5.90	15.46	14.28	15.07	13.58	6.37	4.72	3.80	3.01
Beed	6.42	6.21	6.16	5.99	16.29	14.64	13.71	15.09	6.10	4.55	3.66	2.91
Wanded	6.34	6.23	6.06	6.73	14.48	13.69	14.53	27.56	4.93	3.98	3.38	2.99
Osmanabad	6.47	6.33	6.20	6.08	13.76	15.07	14.27	14.11	6.72	5.41	4.55	3.73
VIDARBHA												
Buldhana	6.26	6.16	6.00	5.96	17.30	15.44	14.48	14.00	4.83	4.18	3.19	3.02
Akola	6.32	6.28	6.21	6.07	16.99	14.74	14.24	14.24	5.06	4.20	3.45	3.22
Anaravati	6.20	6.12	6.07	5.99	17.02	14.49	14.29	14.23	4.22	3.56	2.99	2.72
Yavatmal	6.29	6.27	6.08	5.98	17.92	14.90	14.10	14.16	7.15	5.53	4.14	3.65
Wardha	6.30	6.21	6.06	6.00	17.18	14.85	14.10	14.74	5.74	4.58	3.71	3.43
Nagpur	6.24	6.10	6.02	5.97	16.92	14.93	14.45	14.47	5.11	4.12	3.52	3.18
Bhandara	5.92	5.88	5.83	5.72	16.01	14.73	14.23	13.94	2.16	1.94	1.66	1.47
Chandrapur	6.10	6.04	5.96	5.93	15.92	14.68	14.29	14.41	3.71	3.35	2.79	2.68

ii. Changes in the average size of small holdings :

The average size of small holdings ranged from 1.39 ha to 1.58 ha in different districts (except Nasik 1.72 ha for 1980-81, Nanded 1.36 ha and Ahmednagar 1.78 ha for 1985-86) during the period under reference. There was not much variation in the average size of small holdings from district to district. It was interesting to note that the average size of small holdings was higher in 1985-86 as compared to that in the preceding census years in almost all the districts.

iii. Changes in the average size of semi-medium holdings:

The average size of semi-medium holdings ranged from 2.79 ha (Kulaba) to 2.95 ha (Parbhani) during 1970-71, 2.51 ha (Nagpur) to 3.03 ha (Yavatmal) in 1976-77, 2.67 ha (Kulaba) to 2.99 ha (Kolhapur) in 1980-81 and 2.58 ha (Nanded) to 3.03 ha (Ahmednagar) in 1985-86.

The declining average size of semi-medium holdings during the 4 census years was observed in Pune, Satara, Parbhani, Nanded, Osmanabad, Buldhana, Akola and Chandrapur districts. In the remaining districts, the average size of semi-medium holdings showed irregular trend. However, in general declined during the year 1985-86 as compared to that in 1970-71 in majority of the districts.

iv. Changes in the average size of medium holdings:

The average size medium holdings in on 1970-71 ranged from 5.92 ha (Bhandara) to 6.47 ha (Parbhani, Osmanabad). The average size showed decline in 1976-77 as compared to that in 1970-71 in all the districts of the State. In

Kulaba, Dhule, Sangli, Satara in 1980-81 and Thana, Ratnagiri, Kolhapur, Nanded in 1985-86, a slight increase was observed in the average size of medium holdings as compared to the respective previous census years. Only in Nanded the average size was far more than that in 1970-71. In general, the average size of medium holdings was decreased during the four census years under reference.

v. Changes in the average size of large holdings:

The average size of large holdings ranged between 13.76 to 20.29 ha (Osmanabad and Kulaba) in 1970-71. It was 13.69 ha in Nanded and 22.47 ha in Solapur in 1976-77. It was in the range of 13.29 to 18.50 ha (Nasik and Ratnagiri) in 1980-81, and 13.57 to 27.56 ha (Jalgaon and Nanded) in 1985-86.

A clear declining trend in the average size large holdings during the period of four census years was observed in Buldhana, Akola, Amaravati, Bhandara (all from Vidarbha), Sangli and Kulaba districts. The average size of large holdings in 1985-86 was more than that in 1970-71 for Ahmednagar, Satara, Kolhapur, Nanded and Osmanabad.

5.4.2 Changes in the Average Size of Operational Holdings in Different Regions and in Maharashtra State:

The data on average size of holding by size classes in different regions and for the State of Maharashtra during the four census periods are presented in Table 5.27.

Table 5.27 Average size of holdings by size classes in different regions of Maharashtra

(Area in hectares)

Size classes of holdings	Marginal	Small	semi-medium	Medium	Large	Overall
Region and Years						
KOKAN						
1970-71	0.37	1.43	2.83	6.15	18.72	2.59
1976-77	0.38	1.43	2.83	6.09	18.66	2.43
1980-81	0.40	1.48	2.81	6.06	17.73	2.26
1985-86	0.37	1.43	2.82	6.08	17.90	2.09
WESTERN MAHARASHTRA						
1970-71	0.46	1.46	2.87	6.04	16.26	3.96
1976-77	0.45	1.46	2.84	6.13	15.88	3.47
1980-81	0.49	1.52	2.86	6.09	15.42	2.98
1985-86	0.48	1.51	2.84	5.92	15.81	2.43
MARAHTWADA						
1970-71	0.57	1.49	2.83	6.43	15.69	6.05
1976-77	0.57	1.47	2.89	6.25	14.96	4.73
1980-81	0.62	1.55	2.88	6.11	14.06	3.89
1985-86	0.60	1.59	2.79	6.08	15.56	3.13
VIDARBHA						
1970-71	0.58	1.46	2.85	6.22	17.12	4.54
1976-77	0.56	1.47	2.84	6.15	14.86	3.80
1980-81	0.59	1.50	2.82	6.05	14.26	3.10
1985-86	0.58	1.46	2.75	5.53	14.27	2.80
MAHARASHTRA						
1970-71	0.46	1.46	2.88	6.28	16.47	4.28
1976-77	0.47	1.47	2.86	6.17	15.40	3.66
1980-81	0.50	1.51	2.86	6.07	15.05	3.11
1985-86	0.49	1.49	2.82	5.97	15.27	2.63

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**iii. Average size of holdings
in Vidarbha region:**

For the region as a whole, the average size of holding showed a declining trend from 4.54 ha in 1970-71 to 2.80 ha in 1985-86. The largest decline was observed during the period from 1970-71 to 1976-77 (0.74 ha) followed by the period from 1976-77 to 1980-81 (0.70 ha) while the lowest was during the period from 1980-81 to 1985-86 (0.30 ha).

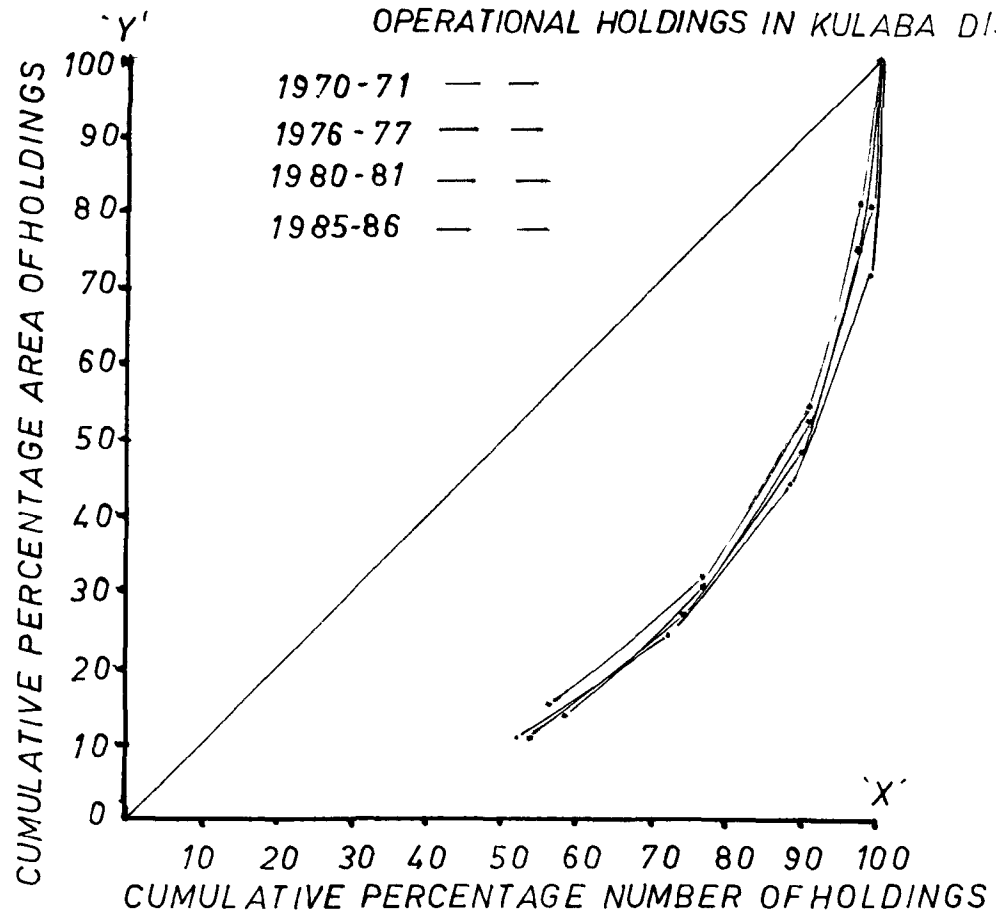
Among the size classes, marginal size group showed ups and downs in the average size of holding during the 4 census and decline in the remaining (semi-medium, medium and large) size groups. Considering the period of 15 years, the average size was more or less constant for marginal (0.58 ha) and small (1.46 ha) size groups of holdings while it declined in the remaining size classes.

**iv. Average size of holdings in
Marathwada region:**

The average size of holding in Marathwada region showed the largest decline as compared to that in other regions of the state. During the period from 1970-71 to 1985-86, the average size of holding at the overall level declined from 6.05 ha to 3.13 ha.

All the size classes showed relatively higher average size of holdings in Marathwada region as compared to that in other regions for most of the periods. The average size of holding in semi-medium and medium size groups showed a clear declining trend during the 4 censuses. However, the other size groups showed a mixed trend. Considering the period of 15 years from 1970-71 to 1985-86, the average size of holding in marginal and small size groups increased from 0.57 ha to 0.60 ha and 1.49 ha to 1.59 ha. In the remaining size classes, the average size showed a decline.

FIG. No. 3 LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN KULABA DIST



RATNAGIRI DIST

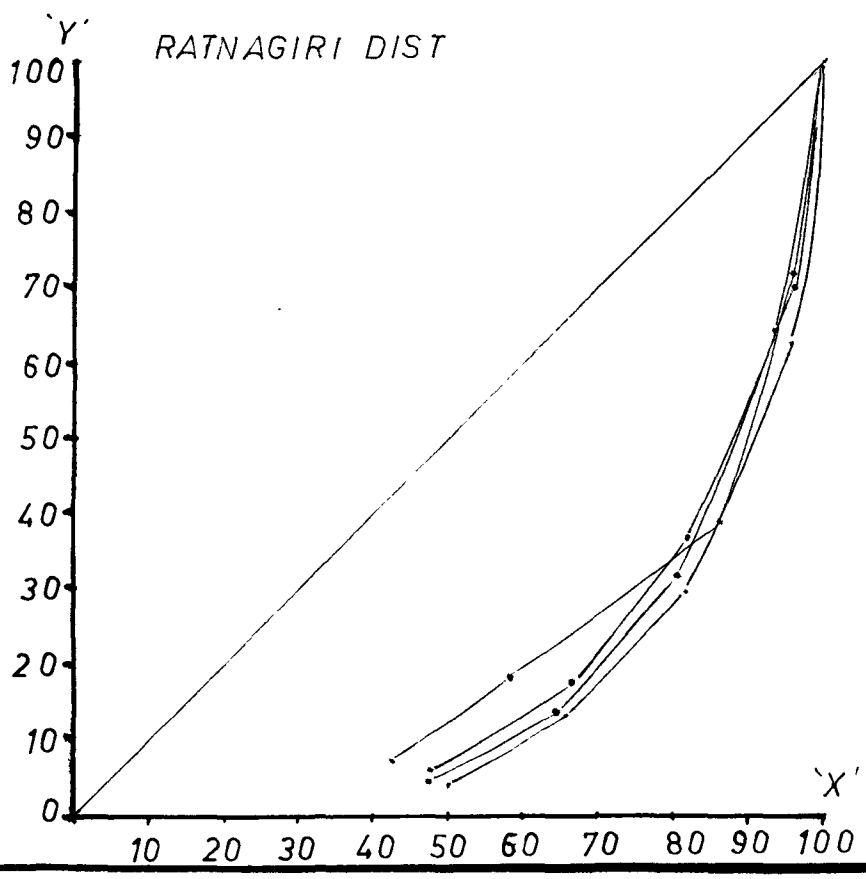
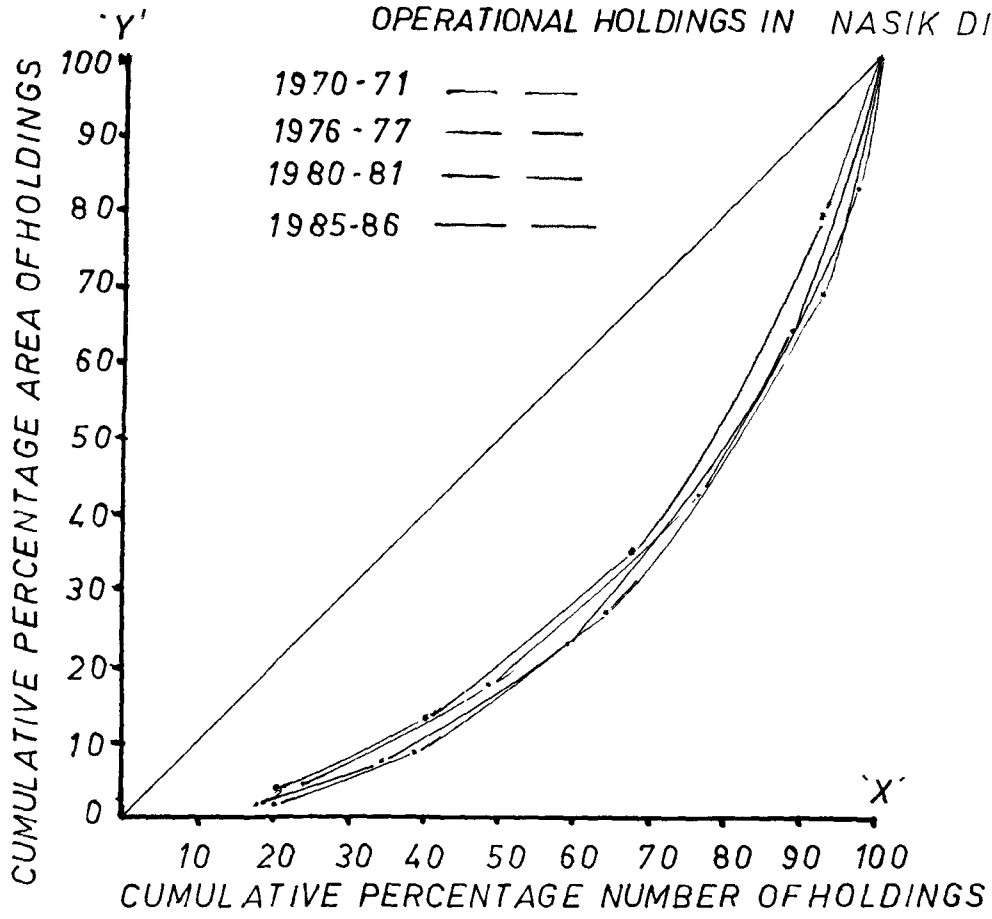


FIG. No. 4 LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN NASIK DIST.



DHULE DIST.

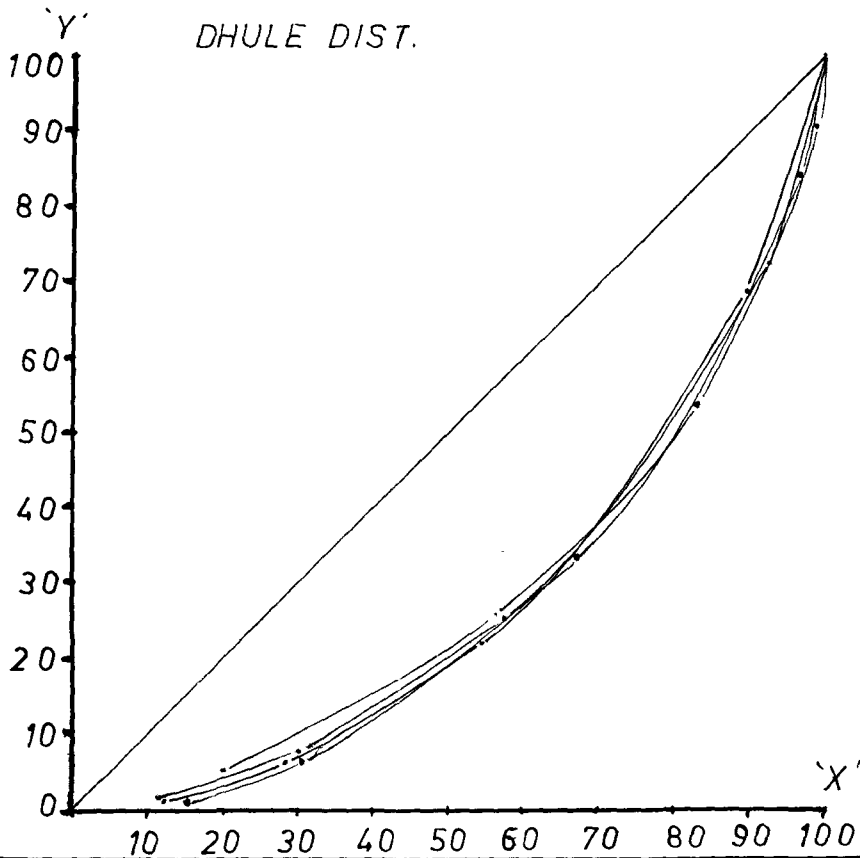
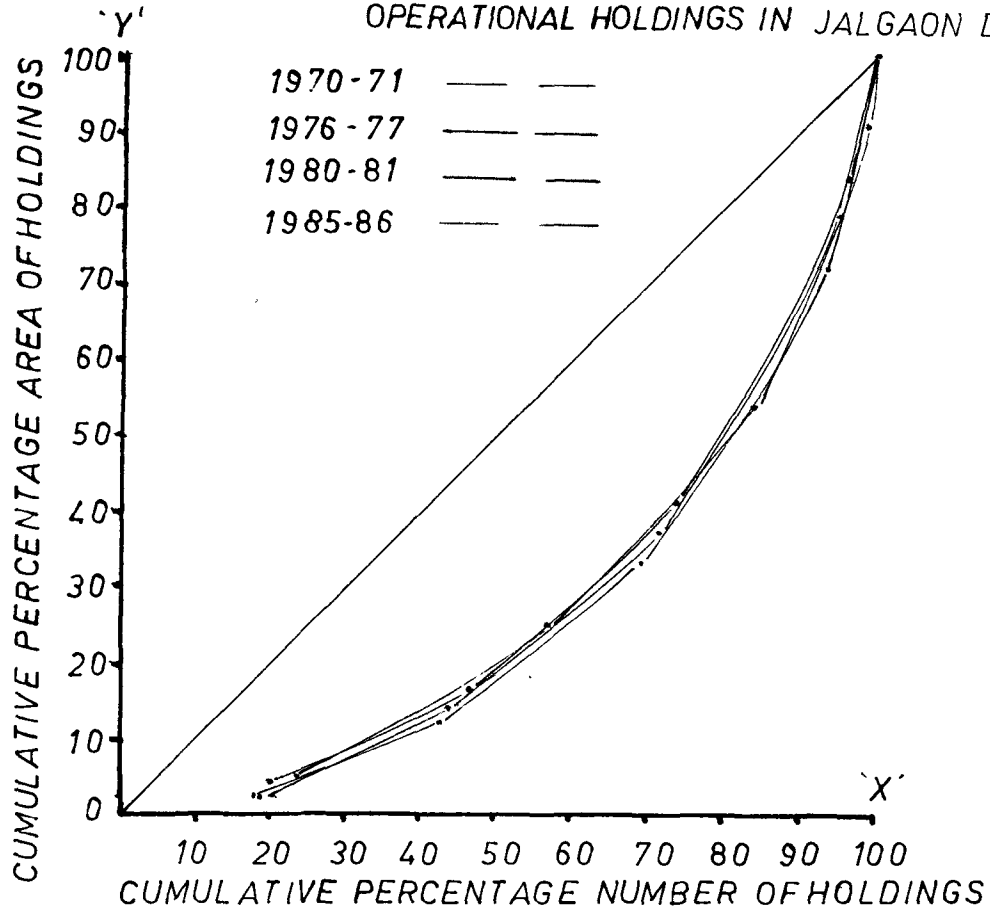


FIG. No. 5 LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN JALGAON DIST.



AHMEDNAGAR DIST.

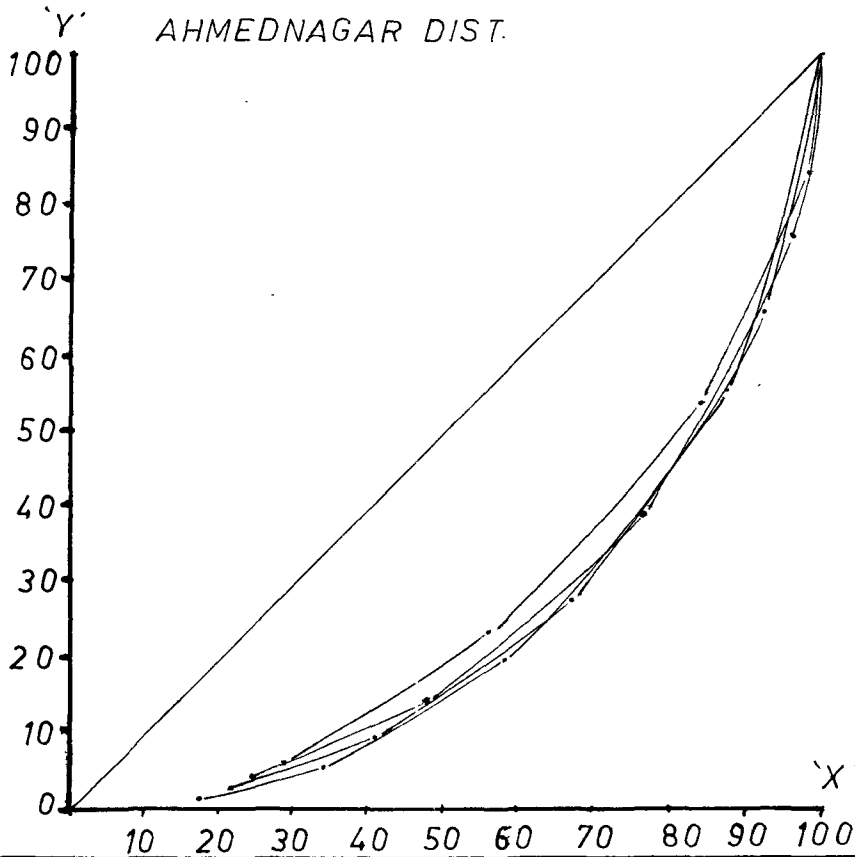


FIG. No. 6. LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN PUNE DIST

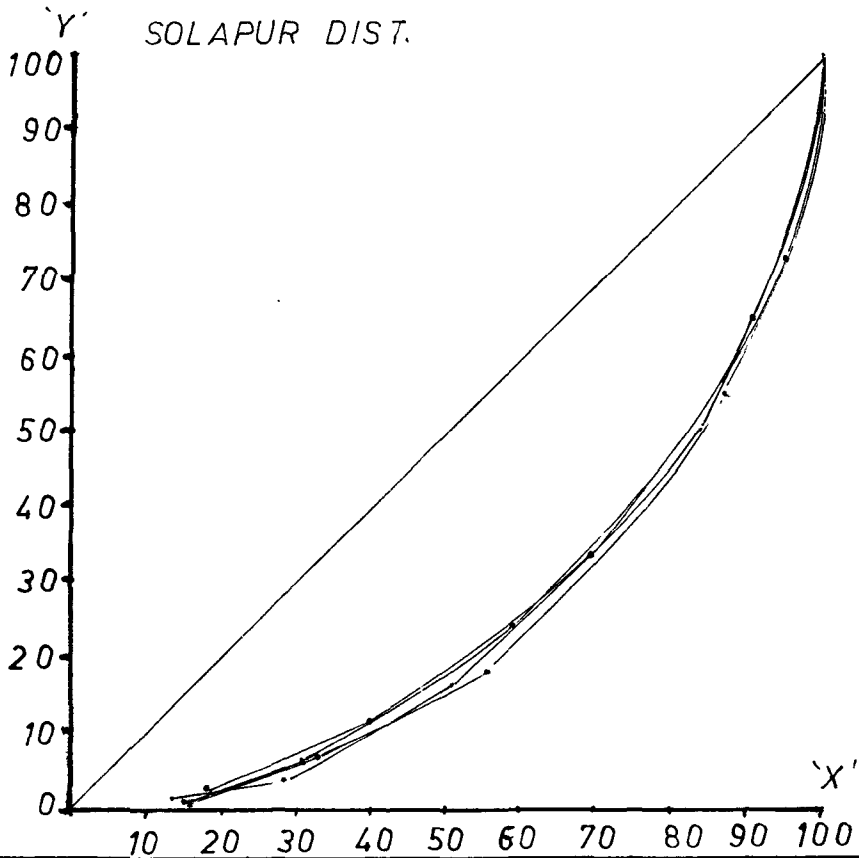
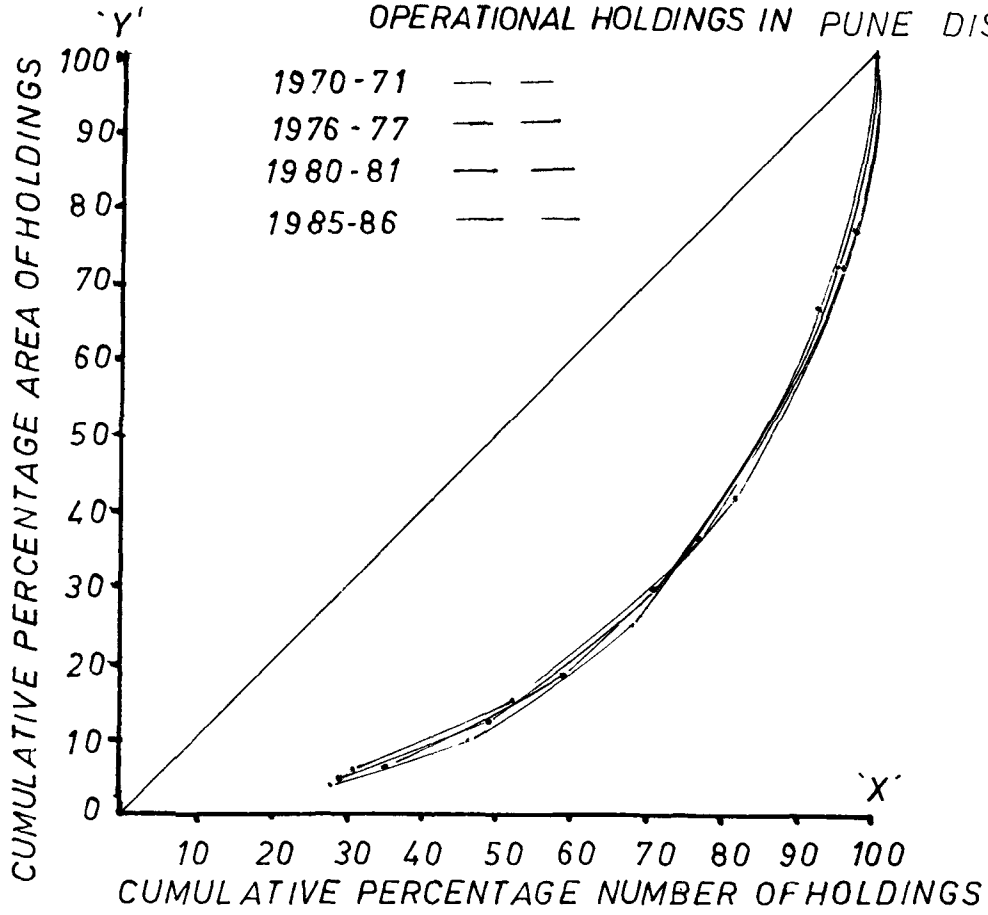


FIG. No. 7. LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN SATARA DIST

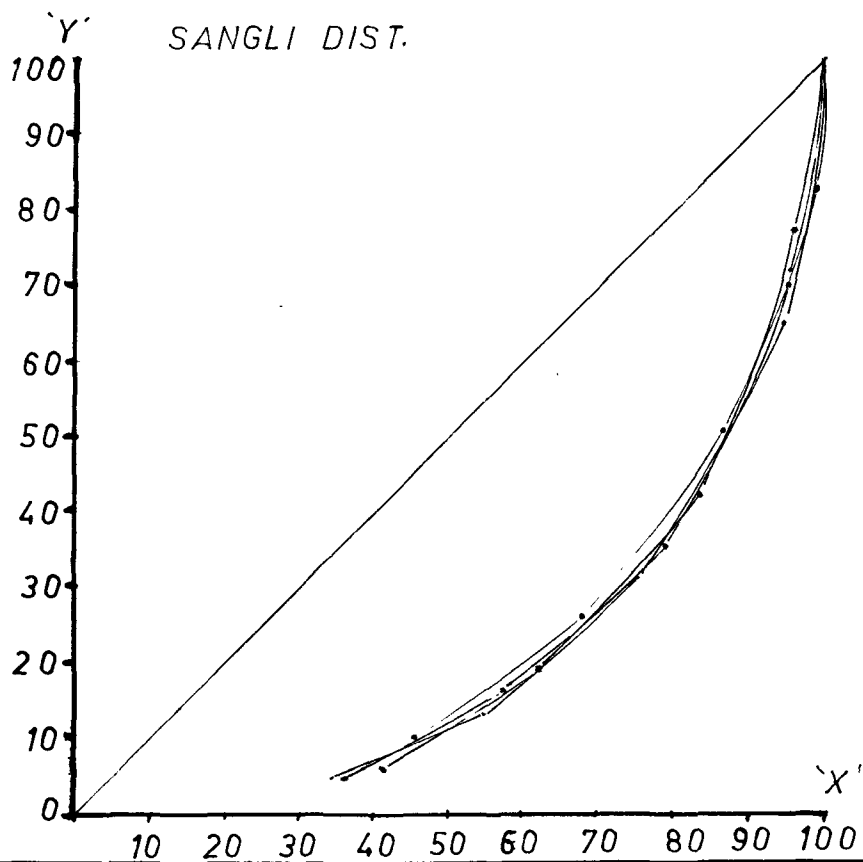
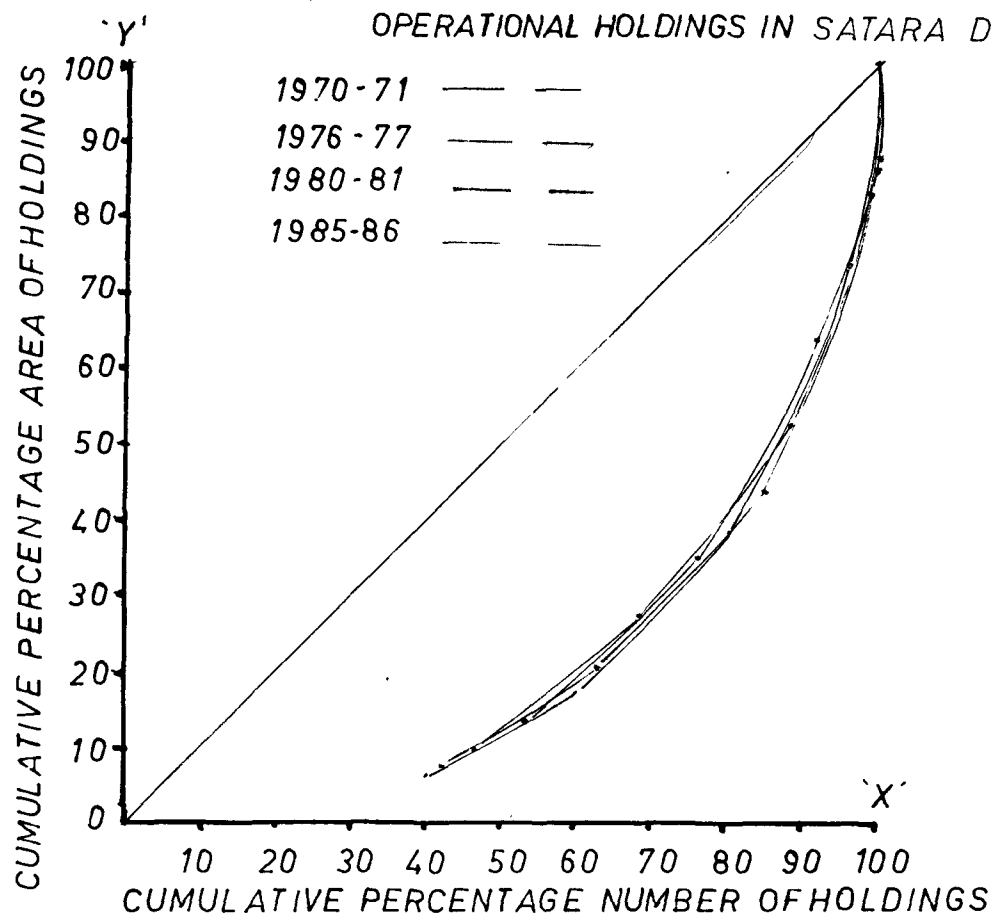
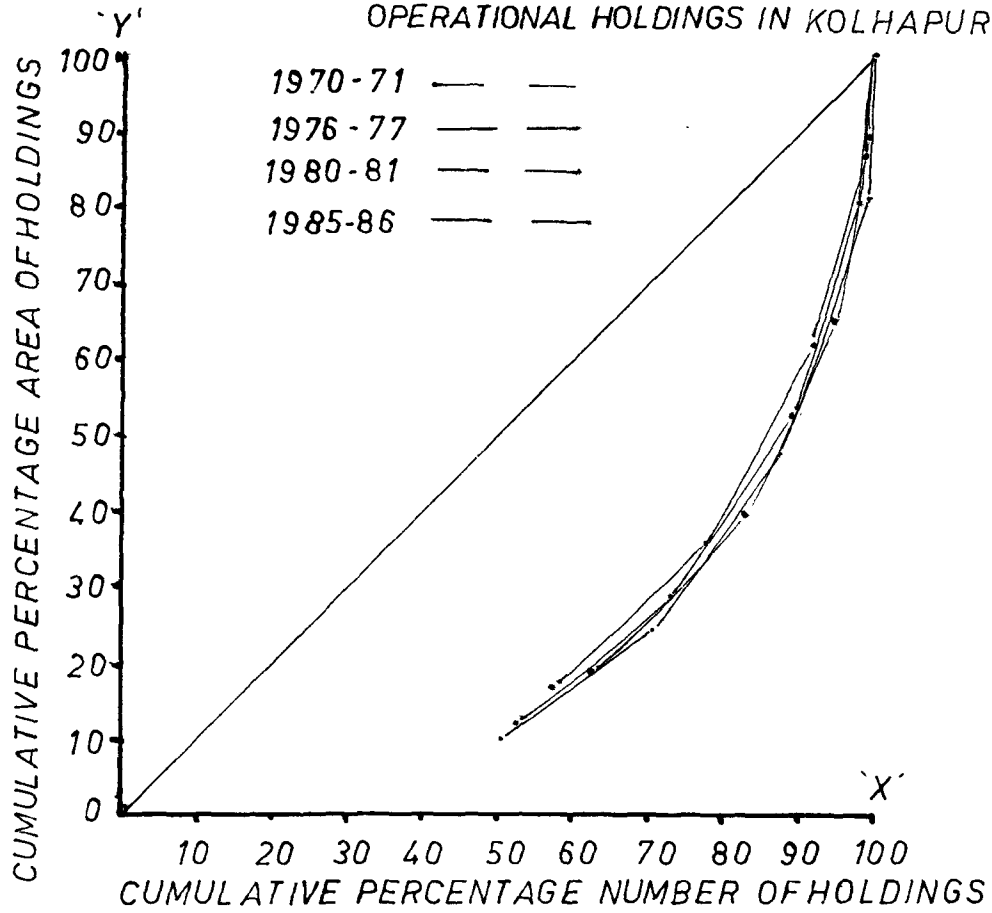


FIG. No. 8 LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN KOLHAPUR DIST.



AURANGABAD DIST.

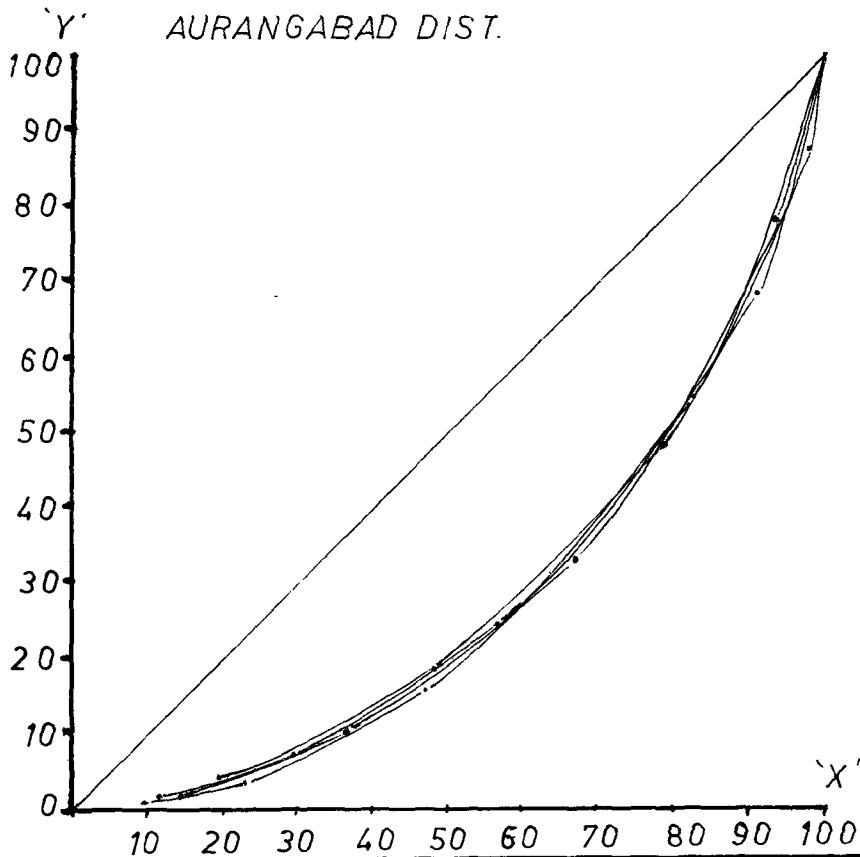


FIG. No. 9. LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN PARBHANI DIST

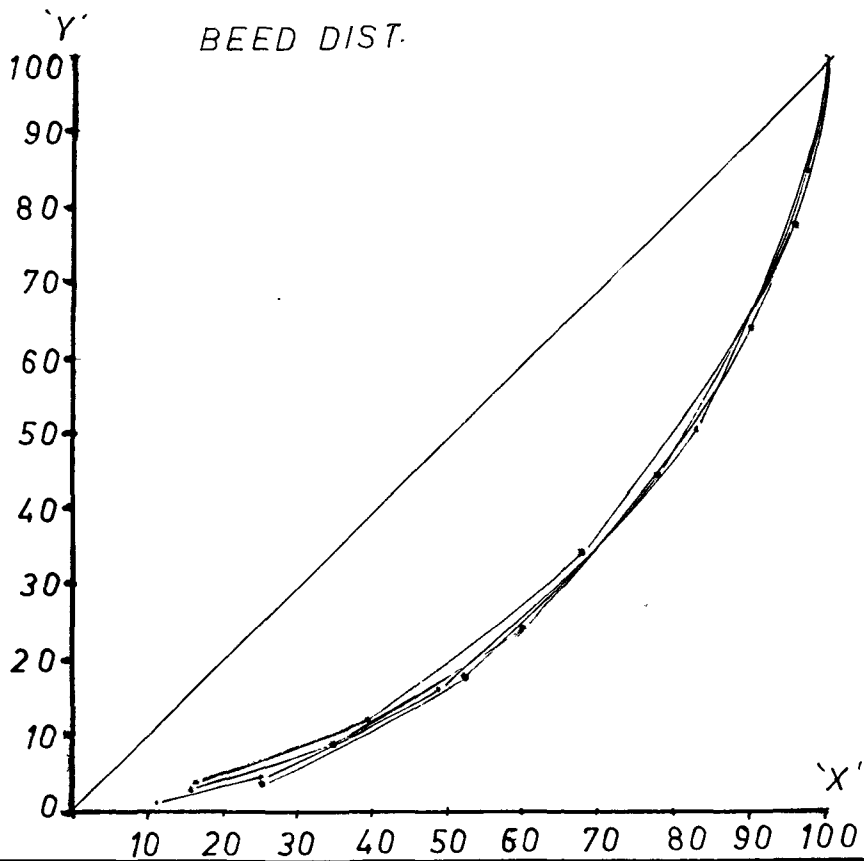
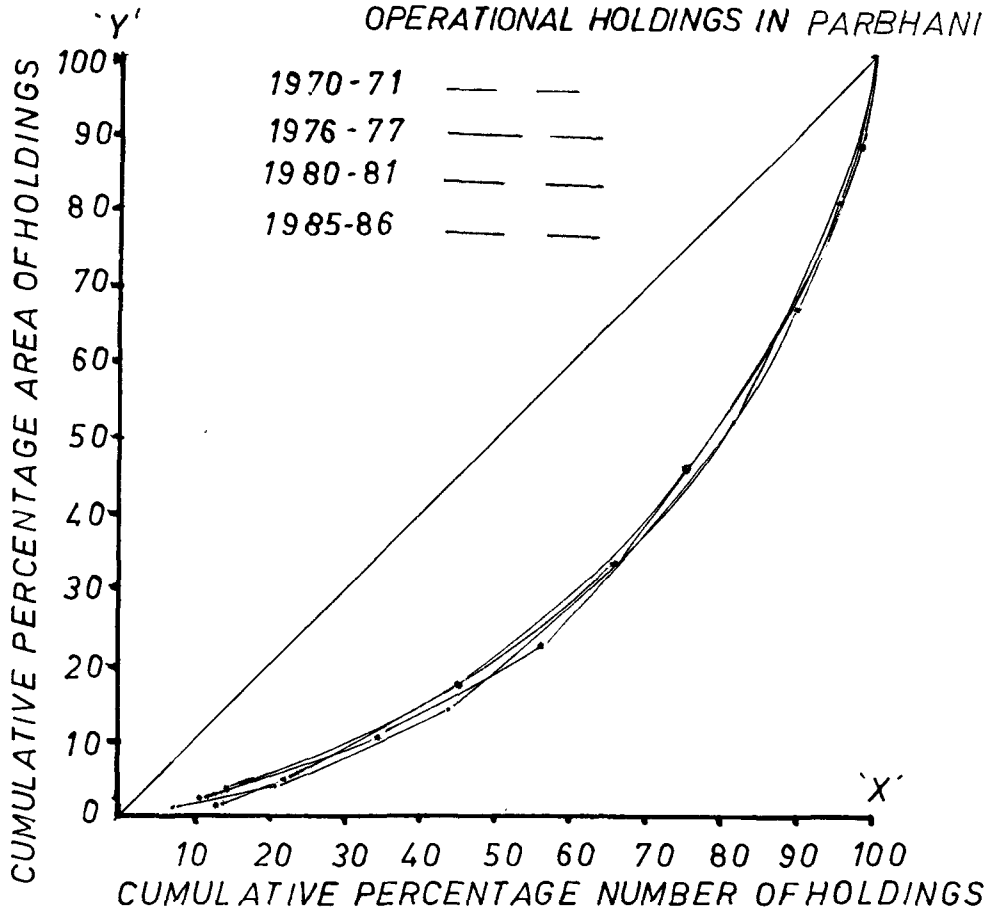
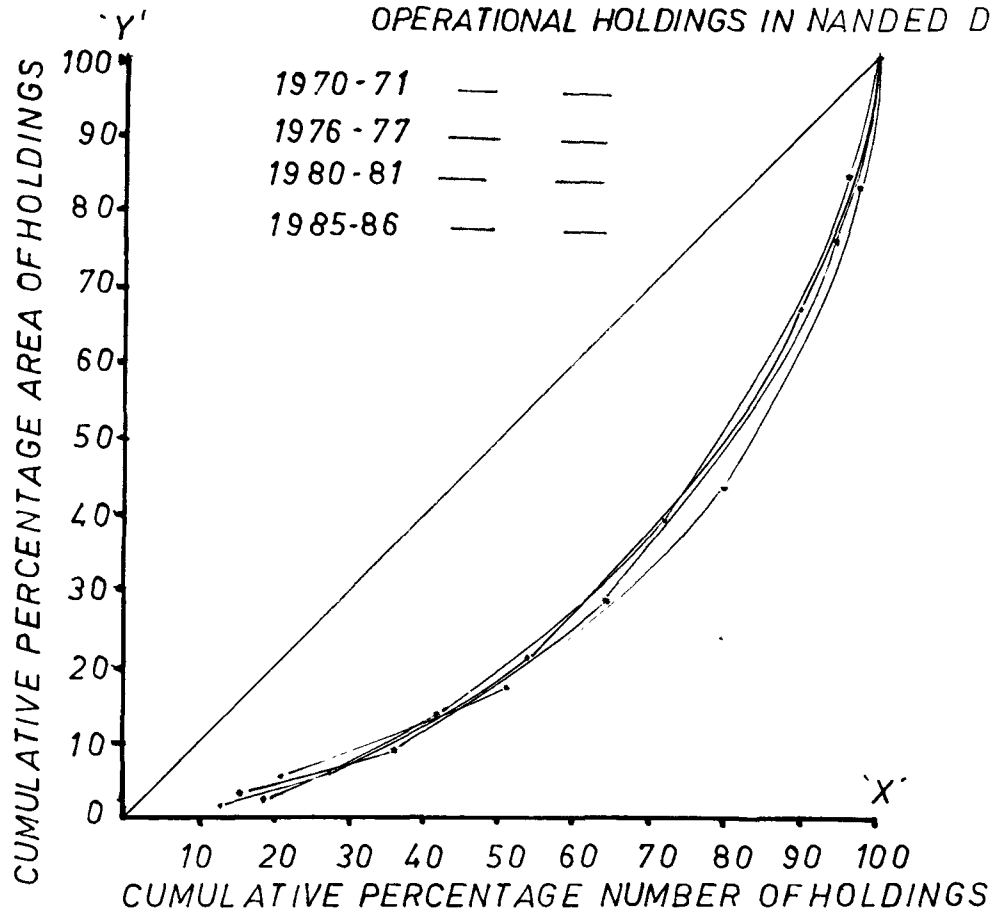


FIG. No. 10 LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN NANDED DIST



OSMANABAD DIST.

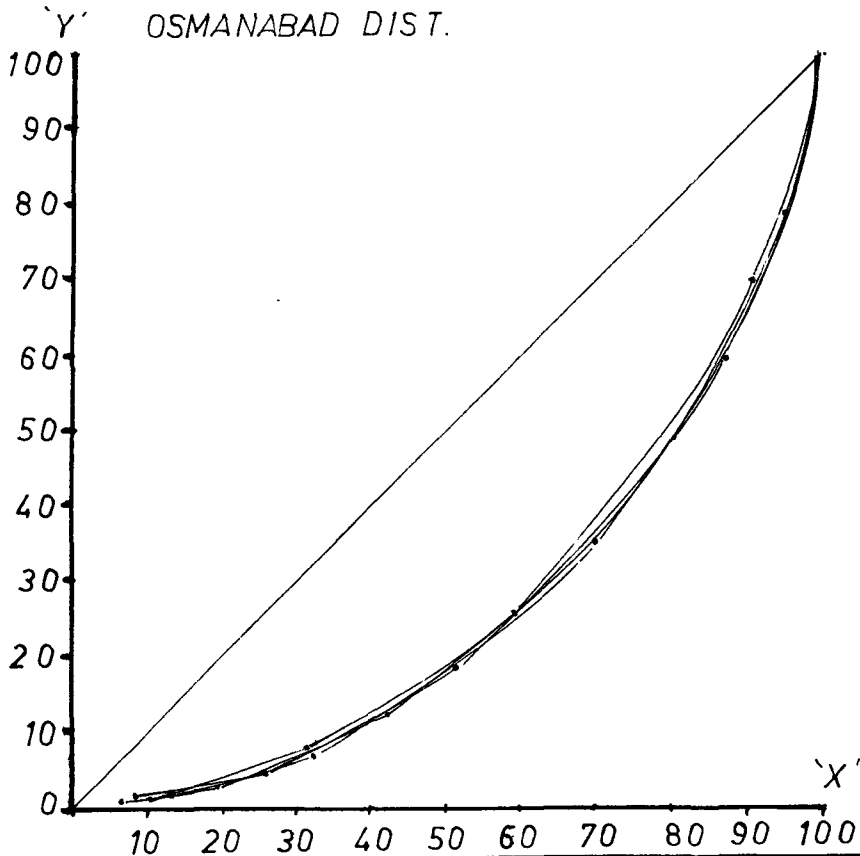
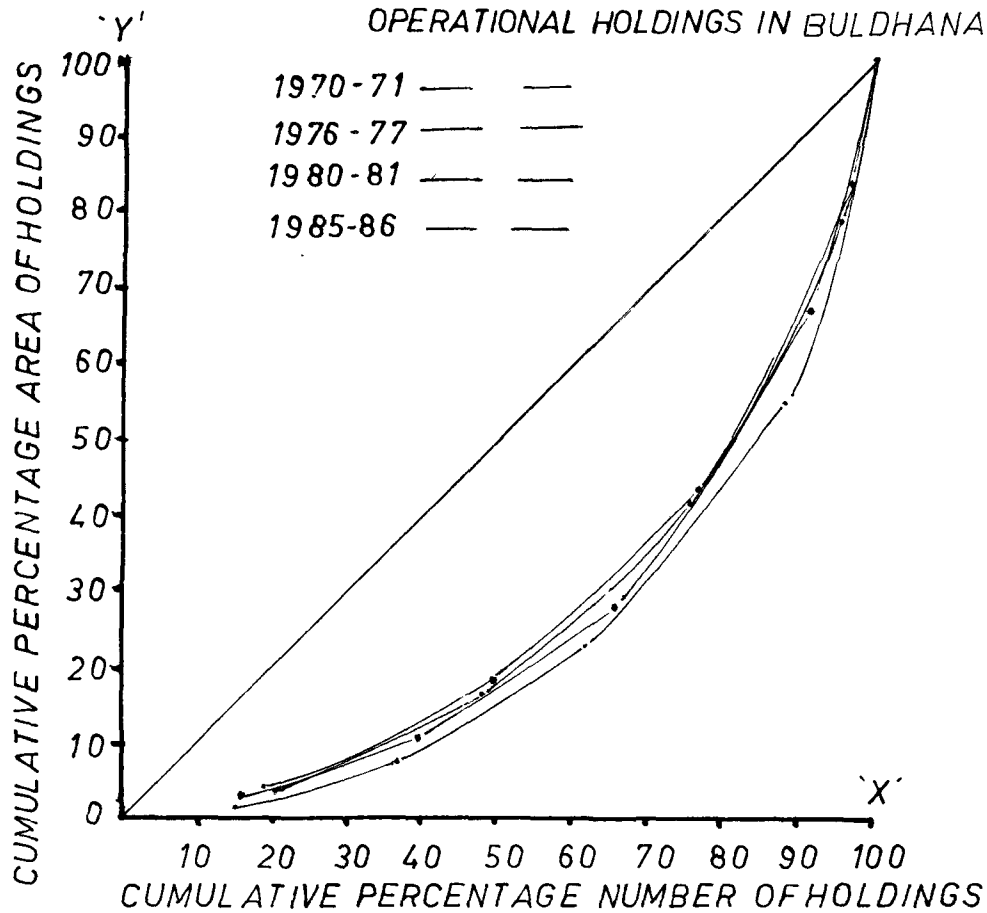


FIG. No. 11 LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN BULDHANA DIST



AKOLA DIST

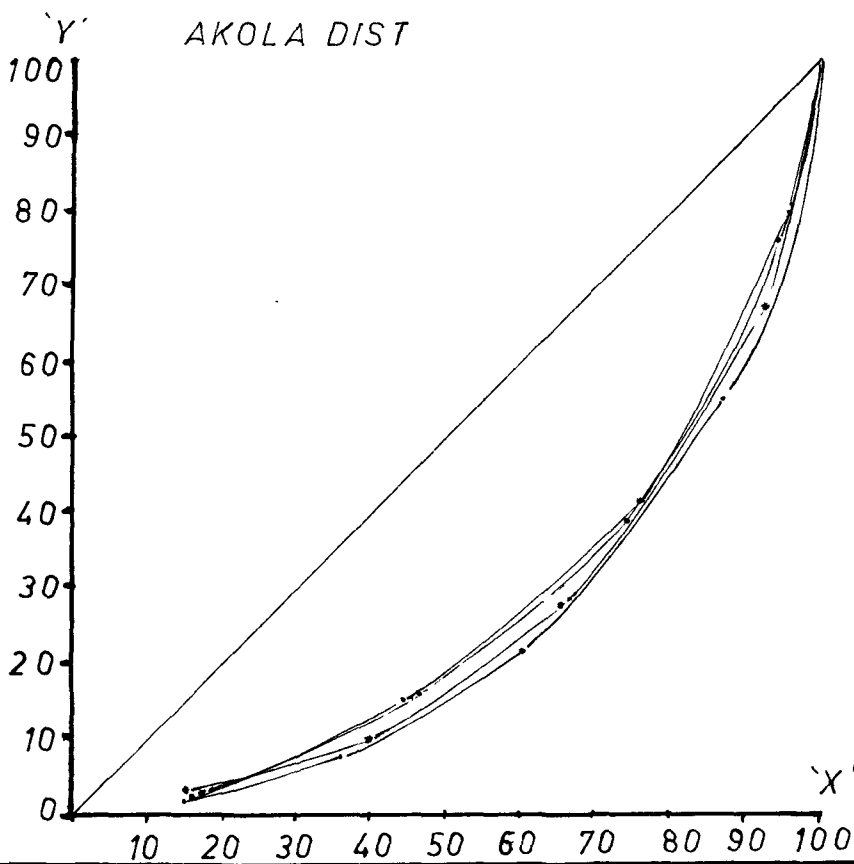


FIG. No. 12 LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN AMRAVATI DIST.

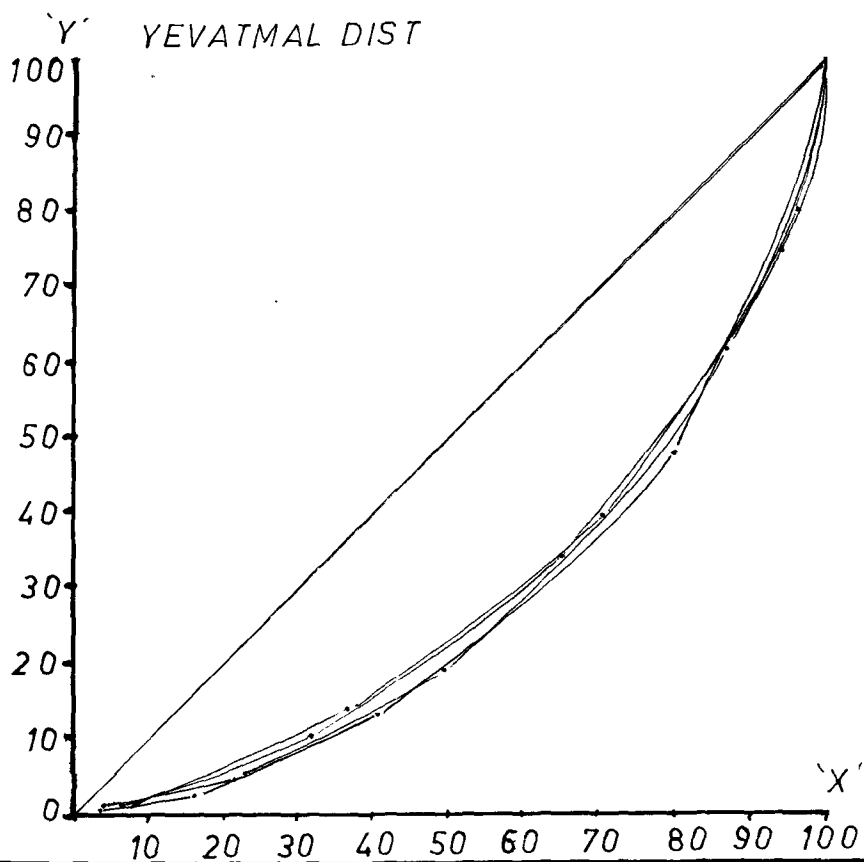
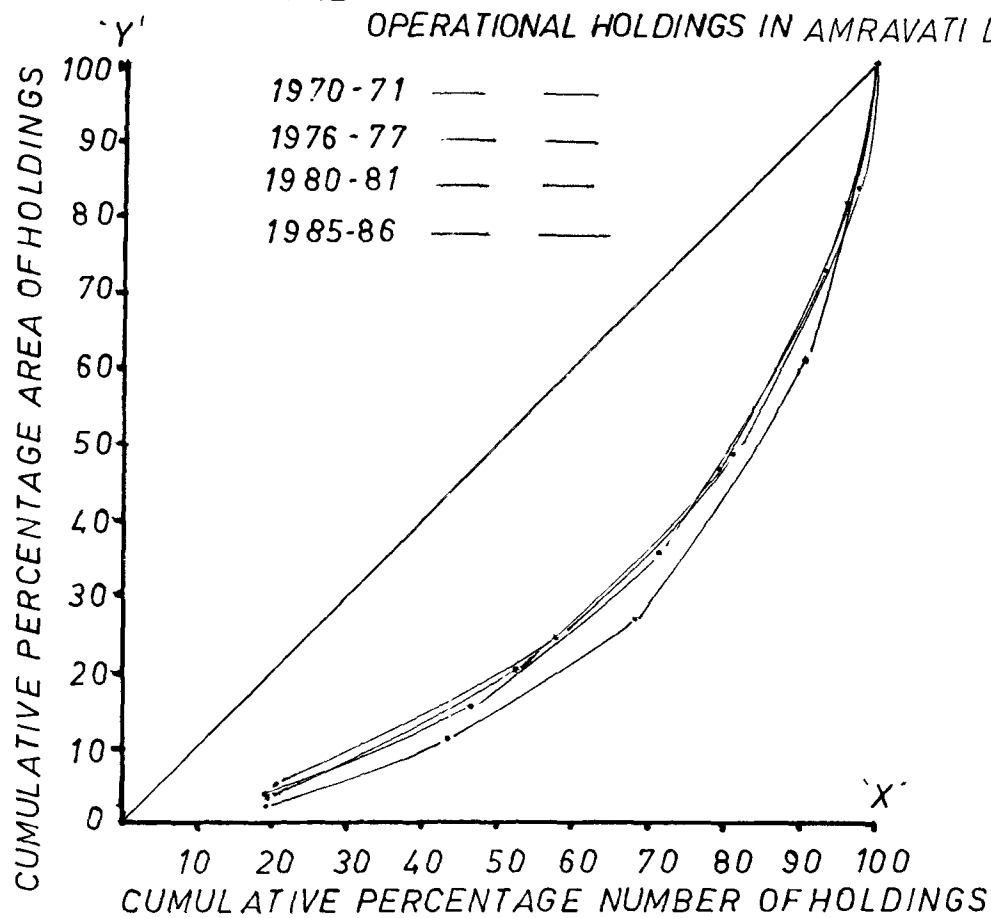
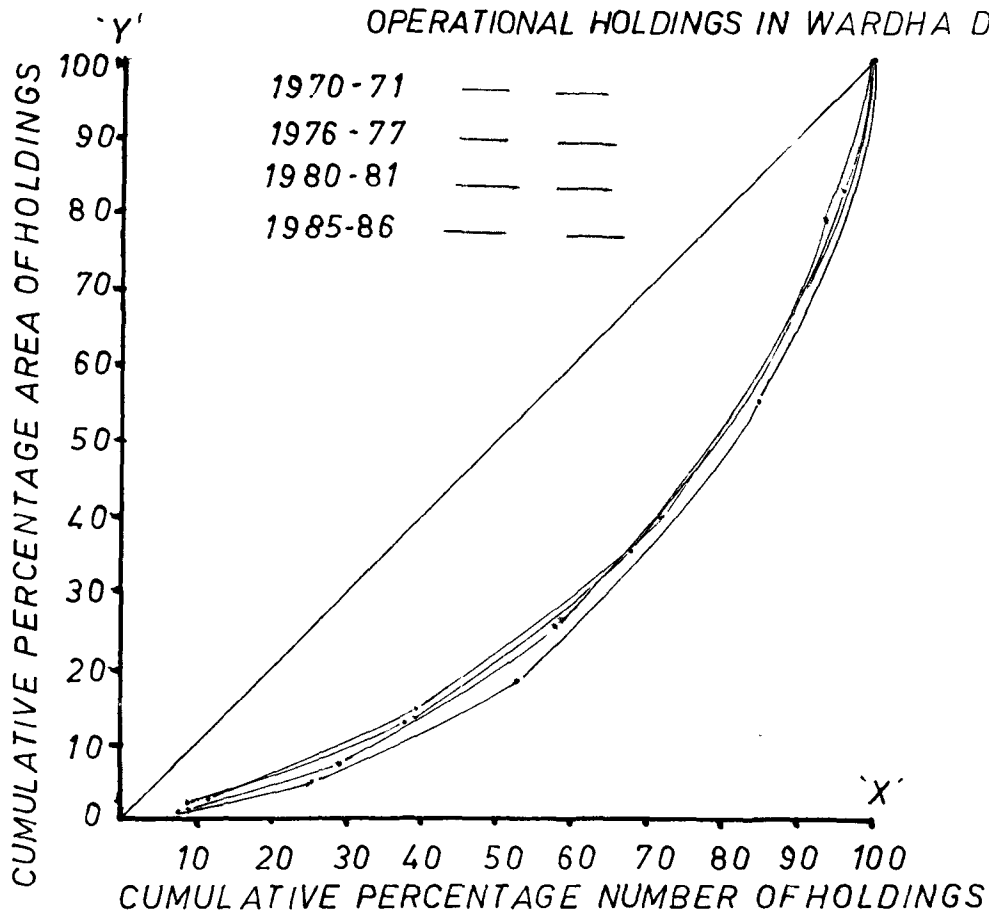


FIG. No. 13 LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN WARDHA DIST



NAGPUR DIST

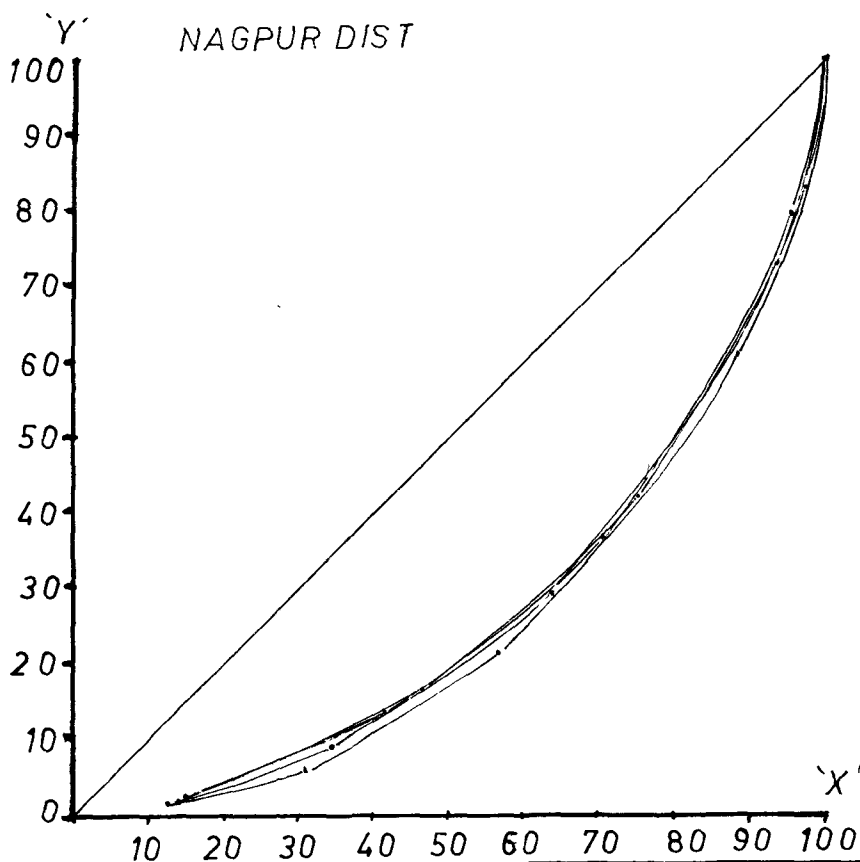
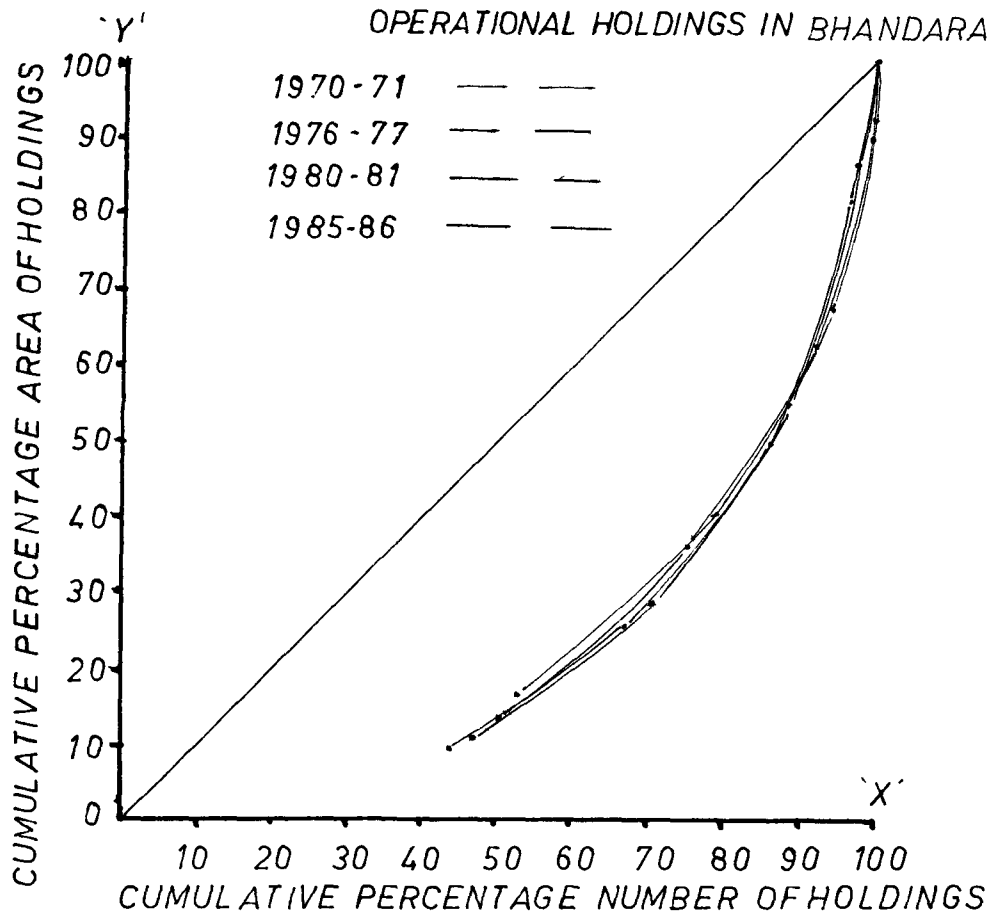
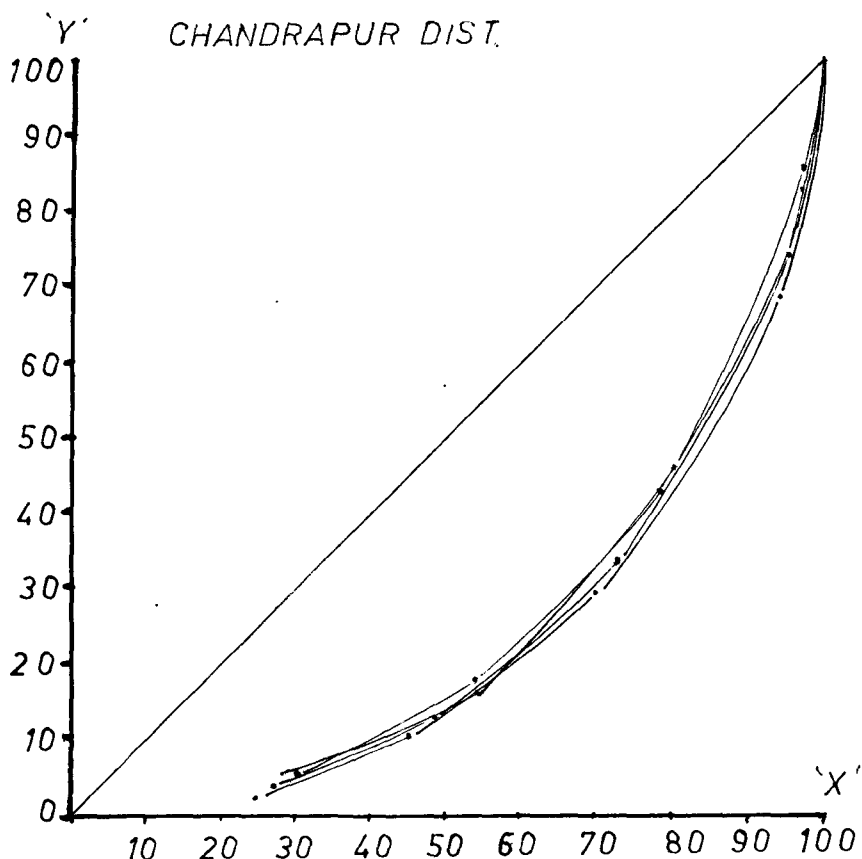


FIG. No. 14 LORENZ CURVES FOR DISTRIBUTION OF OPERATIONAL HOLDINGS IN BHANDARA DIST



CHANDRAPUR DIST.



Chapter Opener Page

6 . THE LAND USE , IRRIGATION AND CROPPING PATTERN IN DIFFERENT SIZE CLASSES OF LAND HOLDINGS

6.1 GENERAL:

In the earlier chapter we have analysed in detail the distribution of operational and ownership holdings for their number and area as well as changes therein during the period of 4 census years (1970-71, 1976-77, 1980-81 and 1985-86). The changes in the distribution of number of holdings and their area might have influenced the land use and cropping pattern. It is also likely that diminution of size of holdings due to sub-division, tenancy acts or other reasons, might have influenced the land use and cropping pattern. The agricultural census reports also give such information which is intended to be analysed here.

Irrigation has been an important factor influencing the agriculture. In Maharashtra the uncertainty and wide variability in the distribution of rainfall over a large tract of the State is very important problem. A large proportion of the area in the State is a drought prone area. Attempts are being made to increase the irrigation facilities. How this factor had reflected on the structural distribution of land holdings could be studied. The distribution of area irrigated in different size classes for the 4 census years is analysed here.

The cropping pattern varies from region to region in the state. It mainly depends on the agro-climatic factors. However, other factors including size holdings also have an impact on the cropping pattern. Certain areas are specialized in certain cash crops.

Thus, these three aspects, viz., land use, irrigation and cropping pattern are analysed here by size classes of holdings for the 4 census years under study. The data are drawn from the census reports and the analysis is restricted to the State level only.

6.2 LAND USE PATTERN:

6.2.1 Changes in the Land Use Pattern in Different Size Classes of Holdings:

The land use classification adopted in the census reports is little different than that is usually followed in agricultural statistics. For instance, the agricultural census does not give separately the area under forests.

The details of land use pattern for different size classes of holdings for the 4 census years are presented in Table 6.1 and analysed below by size classes of holdings.

i. Changes in the land use pattern in the marginal holdings:

The net sown area as well as net cultivated area under marginal holdings showed an increasing trend during the period from 1970-71 to 1985-86. The area under the categories of 'current fallow', 'other fallows', 'cultivable waste' and the 'total uncultivated area' showed an increasing trend from 1970-71 to 1980-81. However, the area declined to some extent during 1985-86. As noted in the earlier analysis, the area increase in different categories is basically due to increased number and splitting up of large holdings. The reduction in the fallows and uncultivated lands may be attributed to various factors such as intensive cultivation in view of shortage of land, extension efforts, use of modern techniques, irrigation facilities, etc.

Table 6.1 Land use pattern in different size-classes of land holdings in Maharashtra (1970-71 to 1985-86)

(Area in thousand hectares)

Particulars	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
Net sown area	502.04 (86.92)	615.03 (87.09)	838.52 (86.15)	1117.37 (90.73)	1107.15 (86.22)	1453.02 (86.72)	2040.20 (87.42)	2841.30 (90.64)	2654.94 (84.80)	3259.73 (85.05)	4152.84 (86.20)	4911.26 (88.97)
Current fallow	8.07 (1.40)	17.63 (2.50)	21.74 (2.23)	20.51 (1.67)	25.05 (1.95)	54.12 (3.23)	59.69 (2.56)	57.37 (1.83)	82.95 (2.65)	155.35 (4.05)	142.62 (2.96)	127.84 (2.31)
Net cultivated area	510.11 (86.52)	632.66 (89.59)	860.26 (88.38)	1137.88 (92.39)	1132.20 (88.17)	1507.14 (89.95)	2099.89 (89.98)	2898.67 (92.47)	2737.89 (87.45)	3415.08 (89.10)	4295.46 (89.16)	5039.10 (91.28)
Uncultivated	12.18 (2.11)	9.24 (1.30)	15.99 (1.64)	10.75 (0.87)	31.52 (2.45)	20.36 (1.22)	35.23 (1.51)	30.81 (0.98)	81.88 (2.62)	52.97 (1.38)	77.00 (1.59)	57.86 (1.05)
Other fallow	8.79 (1.52)	12.14 (1.72)	17.80 (1.83)	13.60 (1.11)	24.67 (1.92)	32.99 (1.97)	41.09 (1.76)	35.32 (1.13)	67.28 (2.15)	86.39 (2.26)	96.17 (2.00)	78.79 (1.43)
Cultivable waste	14.45 (2.50)	20.02 (2.84)	24.48 (2.52)	23.31 (1.89)	37.86 (2.95)	49.47 (2.95)	55.12 (2.36)	61.88 (1.97)	98.96 (3.16)	121.58 (3.17)	123.21 (2.56)	126.30 (2.29)
Total uncultivated	35.42 (6.13)	41.40 (5.86)	58.27 (5.99)	47.66 (3.87)	94.05 (7.32)	102.82 (6.14)	131.44 (5.63)	128.01 (4.08)	248.12 (7.93)	260.94 (6.81)	296.38 (6.15)	262.95 (4.77)
Not available for cultivation	32.05 (5.55)	32.10 (4.55)	54.78 (5.63)	46.06 (3.74)	57.91 (4.51)	65.62 (3.91)	102.38 (4.39)	107.93 (3.45)	144.64 (4.62)	156.77 (4.09)	225.97 (4.69)	218.31 (3.95)
Total operational holding	577.58 (100.00)	706.16 (100.00)	973.31 (100.00)	1231.60 (100.00)	1284.16 (100.00)	1675.58 (100.00)	2333.71 (100.00)	3134.61 (100.00)	3130.65 (100.00)	3832.79 (100.00)	4817.81 (100.00)	5520.36 (100.00)

Particulars	Medium				Large				Over All			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
Net sown area	6415.95 (83.14)	6913.33 (82.91)	7099.59 (84.03)	6696.03 (85.17)	6622.95 (78.20)	4908.14 (78.50)	3573.32 (74.64)	2862.47 (79.44)	17303.03 (81.66)	17149.25 (81.26)	17704.45 (82.88)	18228.43 (85.37)
Current fallow	268.93 (3.48)	415.07 (4.98)	309.44 (3.66)	252.97 (3.22)	386.16 (4.56)	417.82 (6.68)	251.66 (5.26)	165.92 (4.60)	771.18 (3.64)	1060.00 (5.02)	785.14 (3.67)	624.01 (2.93)
Net cultivated area	6684.88 (86.62)	7328.40 (87.39)	7409.02 (87.39)	6949.00 (88.39)	7009.13 (82.76)	5325.96 (85.18)	3824.98 (79.90)	3028.39 (84.04)	18074.21 (85.30)	18209.25 (86.28)	18489.59 (86.55)	18853.04 (88.30)
Uncultivated	216.18 (2.81)	137.80 (1.65)	157.83 (1.87)	113.37 (1.44)	303.10 (3.58)	141.71 (2.27)	144.95 (3.02)	87.77 (2.44)	644.85 (3.04)	367.08 (1.74)	431.00 (2.02)	300.58 (1.41)
Other fallow	186.00 (2.41)	208.37 (2.50)	187.99 (2.21)	157.12 (2.00)	245.27 (2.89)	237.06 (3.79)	170.06 (3.55)	144.49 (4.01)	532.01 (2.51)	567.96 (2.74)	513.12 (2.40)	399.32 (1.87)
Cultivable waste	252.66 (3.27)	283.11 (3.39)	264.91 (3.14)	252.65 (3.21)	375.94 (4.44)	318.04 (5.09)	252.00 (5.26)	195.72 (5.43)	779.87 (3.68)	792.22 (3.75)	719.52 (3.37)	659.86 (3.09)
Total uncultivated	654.84 (8.49)	629.28 (7.55)	610.73 (7.23)	523.14 (6.65)	924.31 (10.91)	696.81 (11.15)	576.01 (11.84)	427.98 (11.88)	1956.74 (9.23)	1736.26 (8.23)	1663.64 (7.79)	1359.74 (6.37)
Not available for cultivation	377.63 (4.89)	380.11 (4.56)	429.48 (5.08)	389.99 (4.96)	536.24 (6.33)	229.66 (3.67)	395.50 (8.26)	146.99 (4.08)	1158.47 (5.47)	1159.24 (5.49)	1208.40 (5.66)	1139.28 (5.33)
Total operational holding	7717.35 (100.00)	8337.79 (100.00)	8449.23 (100.00)	7862.13 (100.00)	8469.68 (100.00)	6252.43 (100.00)	4787.57 (100.00)	3603.36 (100.00)	21189.42 (100.00)	21104.75 (100.00)	21361.63 (100.00)	21352.06 (100.00)

(Figures in parentheses are percentages to the total operational area of the size class)

**ii. Changes in the land use pattern
in the small holdings:**

The area of small holdings showed a continuous increase in almost all categories of land use from 1970-71 to 1985-86. It appears that the land use pattern of small holdings did not change much. The increased area was basically due to splitting up of large holdings into small holdings.

**iii. Changes in the land use pattern
in the semi-medium holdings:**

Net sown area, net cultivated area and cultivable waste of semi-medium holdings showed an increasing trend from 1970-71 to 1985-86. However, the current fallow, uncultivated area, total uncultivated area and the area not available for cultivation, showed increasing trend from 1970-71 to 1980-81; but it declined in 1985-86. It was also good sign. It indicates that the farmers having realised the importance of land, it is being put to better use.

**iv. Changes in the land use pattern
in the medium holdings:**

It could be noted here that a substantial proportion of the total area was under the medium sized holdings. Our earlier analysis has also indicated that quite a large proportion of area under medium holdings was reduced and converted in to marginal or small holdings. The land use pattern may be viewed in this background. The net sown area, current fallow, net cultivated and the area not available for cultivation showed increase in the area from 1970-71 to 1980-81. However, it declined during 1985-86. The declining trend in the uncultivated area, other fallow area, total cultivable waste was noticed. Thus, the picture was not very clear. The changes in 1985-86 as compared to the picture in 1980-81 or earlier, were noteworthy and indicate the sign of

improvement in land use. There is possibility of inter group downward or upward movement of holdings in effecting this change. This may be in accordance with a view that the better quality land is retained and the inferior quality land is given as surplus under ceiling act.

v. Changes in the land use pattern in the large holdings:

There was a clear declining trend in the area of large holdings for all the categories of land use. There was a drastic reduction in the area under large holdings from census to census as noted in earlier analysis. It appears that the land use pattern might have remained more or less the same all throughout.

6.2.2 Percentage Changes in the Land Use Pattern by Size Classes of Holdings:

In order to compare the changes in the land use pattern from census to census, the percentages were worked out and the data are presented by size classes of holdings in Table 6.2

i. Percentage changes in the land use pattern of marginal holdings:

Except 'uncultivated area' all other categories of land use showed increasing trend during the period from 1970-71 to 1980-81 and in 1985-86 over 1970-71. The net sown area of marginal holdings increased by 22.51, 36.34 and 33.25 per cent during three periods 1970-71 to 1976-77, 1976-77 to 1980-81 and 1980-81 to 1985-86, respectively. During the period of 15 years it increased by 122.57 per cent. The current fallow area increased during earlier two periods and marginally declined during the period from 1980-81 to 1985-86. For the total period of 15 years, it increased by 141.98 per cent. Uncultivated land declined in all the periods except 1976-77 to 1980-81. All the categories of land use

Table 6.2 Percentage changes in the land use pattern in different size-classes of holdings in Maharashtra (1970-71 to 1985-86)

Particulars	Marginal				Small				Semi-Medium			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
Net sown area	22.51	36.34	33.25	122.57	31.23	40.41	39.26	156.63	22.78	27.40	18.26	84.99
Current fallow	118.46	23.31	-10.21	141.88	116.05	10.29	-3.90	128.98	87.28	-8.20	-10.36	52.12
Net cultivated area	24.02	35.97	32.27	123.06	33.11	39.32	38.03	156.02	24.73	25.77	17.31	84.05
Uncultivated	-24.14	73.05	-32.77	-11.74	-35.41	73.04	-12.55	-2.25	-35.31	45.37	-24.86	-29.34
Other fallow	38.11	46.62	-23.60	54.72	33.73	24.55	-14.04	43.17	28.40	11.32	-18.07	17.11
Cultivable waste	38.55	22.28	-4.78	61.31	30.67	11.42	12.26	63.44	22.86	1.34	2.51	27.63
Total uncultivated	16.88	40.74	-18.20	34.55	9.32	27.83	-2.61	36.10	5.17	13.58	-11.27	5.98
Not available for cultivation	24.49	76.14	-16.09	84.02	23.02	60.19	5.42	107.75	16.02	47.39	-3.41	65.18
Total operational holding	22.26	37.83	26.54	113.23	30.48	39.28	34.32	144.10	22.43	25.70	14.58	76.33
Particulars	Medium				Large				Over All			
	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71	76-77 over 70-71	80-81 over 76-77	85-86 over 80-81	85-86 over 70-71
Net sown area	7.75	2.69	-5.68	4.36	-25.89	-27.20	-25.49	-59.80	-0.89	3.24	2.96	5.35
Current fallow	54.34	-25.45	-18.25	-5.93	8.19	-39.76	-34.07	-57.04	37.45	-25.93	-20.57	-19.14
Net cultivated area	9.62	1.10	-6.21	3.95	-24.03	-28.17	-26.06	-59.65	0.74	1.54	1.96	4.30
Uncultivated	-36.26	14.54	-28.17	-47.56	-51.60	-1.20	-39.45	-71.04	-43.08	17.41	-30.26	-53.39
Other fallow	12.03	-9.78	-16.42	-15.53	-3.35	-28.26	-32.68	-53.32	8.45	-11.06	-22.18	-24.94
Cultivable waste	12.05	-6.42	-4.63	0.00	-15.40	-20.76	-22.33	-47.94	1.58	-9.15	-8.31	-15.38
Total uncultivated	-3.90	-2.94	-14.34	-20.11	-24.07	-19.20	-29.81	-56.94	-11.27	-4.17	-18.28	-30.51
Not available for cultivation	2.28	15.55	-9.21	7.32	-19.05	-6.38	-28.58	-45.87	-4.74	15.89	-13.54	-4.54
Total operational holding	8.04	1.34	-6.95	1.88	-26.18	-23.43	-24.74	-57.46	-0.40	1.22	-0.04	0.77

except the net sown area and the net cultivated area indicated decline during the period from 1980-81 to 1985-86.

ii. Percentage changes in the land use pattern of small holdings:

The area of small holdings under different land uses showed similar trend as was noted in marginal holdings. The net sown area, current fallow and net cultivated area increased by 156.63, 128.98 and 156.02 per cent during 1970-71 to 1985-86, respectively. Of the total uncultivated area, other fallows and cultivable waste of small holdings showed 43.17 and 63.44 per cent increase respectively during the period from 1970-71 to 1985-86 .

iii. Percentage changes in the land use pattern of semi-medium holdings:

Except uncultivated land, all categories of land use showed increasing trend during the period from 1970-71 to 1985-86. During 1980-81 to 1985-86, all the categories except net sown area, net cultivated and cultivable waste showed declining trend. The uncultivated area of semi-medium holdings declined by 35.31, 24.86 and 29.34 per cent during the periods 1970-71 to 1976-77, 1980-81 to 1985-86 and 1970-71 to 1985-86, respectively. The net sown area and the net cultivated area showed similar increase for all the periods.

iv. Percentage changes in the land use pattern of medium holdings:

During the period from 1980-81 to 1985-86, the area under all categories of land use showed a negative trend. This might have happened due to general reduction in the area under medium holdings as noted in the earlier analysis. During the remaining periods, the net sown area and the net cultivated area showed increase which was less than 10 per cent. During the period of 15 years

(1970-71 to 1985-86), these two categories increased by 4.36 and 3.95 per cent, respectively. The area not available for cultivation increased by 7.32 per cent. The total uncultivated area under medium holdings declined during all the periods under consideration.

v. Percentage changes in the land use pattern of large holdings:

During all the periods under consideration (1970-71 to 1976-77, 1976-77 to 1980-81, 1980-81 to 1985-86 and 1970-71 to 1985-86), the area of large holdings under different land use categories showed declining trend.

The increasing trend in all categories of land use in marginal, small and semi-medium size holdings (except uncultivated area showed marginal decline) was observed. This trend may be due to new holdings in these size groups added by splitting the large holdings. The mixed trend in the medium size group may be due to sub-division, reducing number and area of medium holdings or splitting up of large holdings in to medium holdings. A clear declining trend in all the categories of land use in large holdings may be because of reduction in the area of large holdings.

6.3 IRRIGATION STATUS:

On the basis of irrigation status, the operational holdings are classified into 3 categories, viz. wholly unirrigated, wholly irrigated and partly irrigated holdings. The changes in the irrigation status during the four census periods covering the period from 1970-71 to 1985-86 by size classes is presented in Table 6.3.

Table 6.3 Distribution of number of operational holdings and area by size classes and irrigation status

(Number in thousand & area in thousand hectares)

Particulars	Distribution of number of holdings in census years				Distribution of area of holdings in census years			
	70-71	76-77	80-81	85-86	70-71	76-77	80-81	85-86
A. WHOLLY UNIRRIGATED HOLDINGS								
Marginal	1007.80 (26.80)	1224.68 (27.52)	1573.89 (29.00)	2047.88 (31.22)	0395.16 (3.38)	479.70 (3.91)	651.70 (4.95)	915.35 (6.19)
Small	693.53 (18.44)	908.78 (20.43)	1248.92 (23.01)	1726.68 (26.32)	859.98 (7.35)	1140.43 (9.29)	1631.35 (12.38)	2358.77 (15.95)
Semi-medium	833.50 (22.18)	1036.56 (23.30)	1335.99 (24.62)	1578.67 (24.07)	1995.90 (17.05)	2480.11 (20.19)	3246.10 (24.64)	4030.39 (27.26)
Medium	890.90 (23.70)	994.06 (22.34)	1043.25 (19.22)	1030.73 (15.72)	4334.65 (37.03)	4965.97 (40.43)	5219.01 (39.62)	5384.72 (36.42)
Large	333.69 (8.88)	285.06 (6.41)	225.33 (4.15)	175.24 (2.67)	4118.82 (35.19)	3215.47 (26.18)	2424.36 (18.41)	2097.16 (14.18)
Total (A)	3759.42 (100.00)	4449.14 (100.00)	5427.38 (100.00)	6559.20 (100.00)	11704.51 (100.00)	12281.68 (100.00)	13172.52 (100.00)	14786.39 (100.00)
B. WHOLLY IRRIGATED HOLDINGS								
Marginal	103.93 (60.20)	127.28 (52.08)	127.57 (50.92)	210.81 (57.22)	39.06 (19.60)	53.02 (16.45)	57.13 (17.60)	95.61 (22.07)
Small	34.16 (19.79)	55.35 (22.65)	60.38 (24.10)	93.14 (25.28)	42.57 (21.37)	68.82 (21.36)	75.67 (23.31)	129.86 (29.97)
Semi-medium	22.03 (12.76)	40.22 (16.46)	45.41 (18.13)	49.33 (13.39)	50.67 (25.43)	93.51 (29.02)	105.77 (32.58)	123.83 (28.58)
Medium	10.75 (6.22)	18.78 (7.69)	15.72 (6.27)	14.12 (3.83)	48.46 (24.32)	84.41 (26.20)	69.75 (21.49)	66.23 (15.29)
Large	1.78 (1.03)	2.74 (1.12)	1.46 (0.58)	1.02 (0.28)	18.49 (9.28)	22.46 (6.97)	16.30 (5.02)	17.73 (4.09)
Total (B)	172.65 (100.00)	244.37 (100.00)	250.54 (100.00)	368.42 (100.00)	199.25 (100.00)	322.22 (100.00)	324.62 (100.00)	433.26 (100.00)
C. PARTLY IRRIGATED HOLDINGS								
Marginal	130.20 (12.78)	150.60 (14.20)	224.46 (18.95)	218.54 (18.82)	31.49 (3.03)	41.04 (4.06)	73.35 (6.60)	63.16 (6.48)
Small	150.57 (14.78)	176.49 (16.65)	231.55 (19.55)	283.78 (24.43)	78.20 (7.54)	98.60 (9.76)	154.18 (13.87)	166.70 (17.09)
Semi-medium	231.61 (22.74)	260.95 (24.61)	304.40 (25.70)	328.95 (28.33)	183.22 (17.66)	217.05 (21.48)	283.83 (25.54)	289.11 (29.65)
Medium	327.51 (32.16)	336.75 (33.76)	332.77 (28.09)	271.95 (23.42)	391.93 (37.78)	411.27 (40.71)	426.62 (38.39)	346.34 (35.51)
Large	178.65 (17.54)	135.55 (12.78)	91.38 (7.71)	58.12 (5.00)	352.63 (33.99)	242.32 (23.99)	173.36 (15.60)	109.89 (11.27)
Total (C)	1018.54 (100.00)	1060.34 (100.00)	1184.56 (100.00)	1161.34 (100.00)	1037.47 (100.00)	1010.28 (100.00)	1111.34 (100.00)	975.20 (100.00)

6.3.1 Changes in the Number and Area of Wholly Unirrigated Holdings:

i. Number of wholly unirrigated holdings:

The number of wholly unirrigated holdings showed increasing trend in marginal, small and semi-medium size classes during 1976-77, 1980-81, 1985-86 censuses as compared to the respective previous census years. The number of unirrigated holdings in large size class for the total period under consideration and in medium holdings for 1985-86 as compared with the previous census showed a declining trend.

There was a drastic decline in the number of wholly unirrigated large holdings followed by medium holdings, whereas, there was increase in the number of wholly unirrigated small and marginal holdings. The number of semi-medium holdings showed a little increase.

The proportion of wholly unirrigated marginal and small holdings in the total number was 45.24 per cent during 1970-71 which increased to 57.54 per cent in 1985-86. The proportion in medium and large groups together, however, declined from 32.58 per cent to 18.39 per cent during the corresponding period.

ii. Area of wholly unirrigated holdings:

The area of wholly unirrigated holdings in all the size groups except large, showed increasing trend. The area of large wholly unirrigated holdings declined from 4118.82 thousand ha in 1970-71 to 2097.16 thousand ha in 1985-86. The largest decline was observed during the period from 1970-71 to 1976-77. The area of marginal, small and semi-medium wholly unirrigated holdings increased by more than twice during the period of 15 years.

6.3.2 Changes in the Number and Area of Wholly Irrigated Holdings:

i. Number of wholly irrigated holdings:

The number of wholly irrigated holdings showed increasing trend in marginal, small and semi-medium size classes of holdings during the 4 census periods. The number of irrigated holdings in these size classes almost doubled, while the same in medium and large size classes increased during 1976-77 and again declined in 1980-81 and 1985-86 as compared to that in the respective previous censuses. The proportion of wholly irrigated small holdings increased from 19.79 per cent in 1970-71 to 25.28 per cent in 1985-86. However, the proportion of large holdings showed declining trend. The proportion in the other size classes showed ups and downs.

ii. Area of wholly irrigated holdings:

The area of wholly irrigated marginal, small and semi-medium holdings showed increasing trend. The area tripled in small size class and doubled in marginal and semi-medium size classes during the period from 1970-71 to 1985-86. The proportion was continuously declining in the large size class. The area of wholly irrigated small holdings increased from 42.57 thousand ha in 1970-71 to 129.86 thousand ha in 1985-86.

6.3.3 Changes in the Number and Area of Partly Irrigated Holdings:

i. Number of partly irrigated holdings:

The number of partly irrigated holdings showed increasing trend in marginal (except during 1980-81 to 1985-86), small and semi-medium size classes in 1976-77, 1980-81 and 1985-86 over the respective previous census years. The

medium (except 1976-77) and large size classes showed declining trend in the number of partly irrigated holdings for all the periods. The proportion of number of wholly irrigated holdings was the highest in medium size class in the year 1970-71 (32.16 per cent). However, it switched over to semi-medium size class in 1985-86 (28.33 per cent). The number of wholly irrigated large holdings declined from 17.54 per cent in 1970-71 to only 5.00 per cent in 1985-86.

ii. Area of partly irrigated holdings:

The area of partly irrigated marginal and small sized holdings doubled during 15 years (1970-71 to 1985-86). For small and semi-medium size classes, partly irrigated area showed continuous increasing trend in the irrigated area and declining trend in the large holdings. The proportion of area under partly irrigated holding was the highest in the medium holdings and the lowest in marginal holdings. The medium and large holdings constituted 71.77 per cent of the partly irrigated area in 1970-71 which declined to 46.48 per cent in 1985-86. However, the irrigated area of small and semi-medium holdings increased from 25.20 per cent in 1970-71 to 46.74 per cent in 1985-86.

6.3.4 Percentage Changes in the Number and Area of Wholly Unirrigated Holdings:

The data for percentage changes are analysed in the Table 6.4. The number of wholly unirrigated holdings increased to large extent in small holdings (148.96 per cent). It was followed by marginal (103.20 per cent), semi-medium (89.40 per cent) and medium (15.69 per cent) holdings during the period from 1970-71 to 1985-86. The large holdings declined by 47.49 per cent during the

Table 6.4 Percentage changes in the number of holdings and area of wholly unirrigated, wholly irrigated and partly irrigated holdings by size classes for different census periods in Maharashtra

Particulars	Percentage change in the number of holdings during				Percentage change in the area of holdings during			
	76-77	80-81	85-86	85-86	76-77	80-81	85-86	85-86
	over 70-71	over 76-77	over 80-81	over 70-71	over 70-71	over 76-77	over 80-81	over 70-71
WHOLLY UNIRRIGATED								
Marginal	21.52	28.51	30.11	103.20	21.39	35.85	40.45	131.64
Small	31.03	37.42	38.25	148.96	32.61	43.04	44.59	174.28
Semi-medium	24.36	28.88	18.16	89.40	24.26	30.88	24.16	101.93
Medium	11.57	4.94	-1.21	15.69	14.56	5.09	3.17	24.22
Large	-14.58	-20.96	-22.23	-47.49	-21.94	-24.61	-13.50	-49.09
Total (A)	18.34	21.98	20.85	74.47	4.93	7.25	12.25	26.33

WHOLLY IRRIGATED								
Marginal	22.46	0.22	65.25	102.83	35.73	7.75	67.35	144.77
Small	62.03	9.08	54.25	172.65	61.66	9.95	71.61	205.05
Semi-medium	82.56	12.90	8.63	123.92	84.54	13.11	17.07	144.38
Medium	74.69	-16.30	-10.18	31.34	74.18	-19.74	-5.05	36.66
Large	53.93	-46.72	-30.14	-42.70	21.47	-27.43	8.77	-4.11
Total (B)	41.54	2.50	47.05	113.39	61.71	0.74	33.46	117.44

PARTLY IRRIGATED								
Marginal	15.66	49.04	-2.64	67.84	30.32	78.72	-13.90	100.57
Small	17.21	58.06	22.55	88.47	26.08	56.36	8.12	113.17
Semi-medium	12.66	16.65	8.06	42.02	18.46	30.76	1.86	57.79
Medium	2.82	-1.19	-18.28	-16.97	4.93	3.73	-18.82	-11.64
Large	-24.13	-32.59	-36.40	-62.47	-31.29	-28.46	-36.62	-68.84
Total (C)	4.10	11.71	-1.97	14.02	-2.63	10.00	-12.26	-6.01

same period.

The area of wholly unirrigated holding showed continuous increasing trend in all the size groups except large ones. The percentage change in the area was similar to one observed in case of number of wholly unirrigated holdings. However, the magnitude in respect of area was some what higher. During the period from 1970-71 to 1985-86, the area increase was 174.28, 131.64, 101.93 and 24.22 per cent for small, marginal, semi-medium and medium holdings, respectively.

6.3.5 Percentage Changes in the Number and Area of Wholly Irrigated Holdings:

The trend for both number of holdings and their area for marginal, small and semi-medium wholly irrigated holdings was increasing during the period of 4 census under consideration. The number increased by 102.83, 172.65, 123.92 per cent while the area increased by 144.17, 205.05 and 144.38 per cent in marginal, small and semi-medium wholly irrigated holdings, respectively. Both number and area of wholly irrigated medium holdings showed increase during the periods from 1970-71 to 1976-77 and 1970-71 to 1985-86. The large holdings showed a negative trend during all the censuses.

6.3.6 Percentage Changes in the Number and Area of Partly Irrigated Holdings:

The partly irrigated holdings showed relatively larger increasing trend in the area than in the number of holdings. The number of holdings increased by 67.84, 88.47, 42.02 per cent in marginal, small and semi-medium size classes of holdings respectively. The number of medium and large holdings under the category declined by 16.97 and 62.47 per cent, respectively. The area of partly

irrigated marginal, small and semi-medium holdings increased by 100.57, 113.17, 57.79 per cent during the period from 1970-71 to 1985-86. The area of medium and large holdings declined by 11.64 and 68.84 per cent respectively during the above period.

The number and area of wholly unirrigated, wholly irrigated holdings under marginal, small and semi-medium size groups showed increasing trend from census to census during 4 censuses and the period of 15 years. This may be due to addition of new holdings by splitting large holdings as a result of ceiling legislation and other factors. The medium holdings showed mixed trend and large holdings showed a clear declining trend for both number and area of these holdings. More or less similar trend observed in partly irrigated holdings for both number and area. The increase in number and area of wholly irrigated holdings at the overall level was larger than that under wholly unirrigated area. This may be due to constant efforts of the government to extend irrigation facilities.

6.4 CHANGES IN THE CROPPING PATTERN:

The area under major crop groups for the four census years under consideration by size classes of holdings are presented in Table 6.5 and explained below by size classes of holdings.

i. Changes in the area under major crops in marginal holdings:

The area under all groups of crops showed an increasing trend from 1970-71 to 1985-86. The exceptions were the area under cotton and other fibre crops, condiments and spices *etc.* which showed decline in the area during 1976-77 and again increased in the subsequent years. The cereals occupied about 65 per

Table 6.5 Distribution of area under major crops by size-classes of holdings in Maharashtra (1970-71, 1976-77, 1980-81 and 1985-86 census)

(Area in thousand hectares)

Particulars	Marginal				Small				Semi Medium			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
Cereals	361.61 (65.82)	477.52 (70.32)	641.11 (66.71)	1017.33 (68.22)	715.46 (60.02)	1003.29 (63.58)	1385.11 (60.93)	2065.79 (61.15)	1635.67 (57.06)	2122.80 (61.12)	2727.11 (59.56)	3358.04 (61.19)
Pulses	47.89 (8.72)	65.07 (9.58)	83.70 (8.71)	107.71 (7.22)	133.71 (11.22)	191.55 (12.14)	243.77 (10.72)	321.75 (9.53)	344.53 (12.19)	461.40 (13.29)	504.85 (11.02)	628.61 (11.45)
Sugarcane	11.63 (2.12)	19.37 (2.85)	30.32 (3.16)	38.96 (2.61)	20.02 (1.68)	34.31 (2.17)	49.39 (2.17)	66.51 (1.97)	37.86 (1.34)	63.37 (1.82)	86.66 (1.89)	90.28 (1.65)
Fruits & vegetables	7.76 (1.41)	9.61 (1.42)	14.84 (1.54)	18.85 (1.26)	13.72 (1.15)	17.31 (1.10)	28.50 (1.25)	40.95 (1.21)	29.42 (1.04)	37.21 (1.07)	54.72 (1.20)	63.09 (1.15)
Cotton & other fibre crops	41.28 (7.51)	28.21 (4.15)	81.06 (8.44)	129.79 (8.71)	142.70 (11.97)	121.49 (7.70)	313.97 (13.11)	485.41 (14.38)	368.17 (13.03)	320.11 (9.22)	691.69 (15.11)	812.31 (14.80)
Oilseed crops	37.22 (6.77)	46.66 (6.87)	60.15 (6.26)	126.24 (8.47)	95.77 (8.03)	133.89 (8.48)	159.16 (7.00)	292.37 (8.66)	243.12 (8.60)	313.61 (9.03)	334.70 (7.31)	358.19 (6.53)
Fodder crops	17.34 (3.16)	24.77 (3.65)	39.36 (4.10)	38.35 (2.57)	37.50 (3.14)	56.19 (3.56)	72.19 (3.18)	74.20 (2.20)	90.53 (3.20)	117.23 (3.38)	141.06 (3.08)	128.98 (2.35)
Condiments, spices & other misc. crops	24.65 (4.49)	7.89 (1.16)	10.43 (1.08)	13.95 (0.94)	33.23 (2.79)	20.05 (1.27)	21.36 (0.94)	30.52 (0.90)	77.53 (2.74)	35.39 (1.05)	38.14 (0.83)	48.15 (0.88)
Gross cropped area	549.38 (100.00)	679.07 (100.00)	960.98 (100.00)	1491.18 (100.00)	1192.11 (100.00)	1578.08 (100.00)	2273.45 (100.00)	3378.00 (100.00)	2826.83 (100.00)	3473.12 (100.00)	4578.93 (100.00)	5487.05 (100.00)

Particulars	Medium				Large				Over All			
	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86	1970-71	1976-77	1980-81	1985-86
Cereals	3740.15 (55.41)	4246.27 (58.22)	4541.26 (58.40)	4064.28 (60.46)	3629.75 (52.57)	2886.55 (56.32)	2161.79 (56.58)	1597.70 (59.96)	10082.64 (55.33)	10736.43 (59.16)	11456.38 (59.02)	12103.14 (61.31)
Pulses	913.43 (13.53)	1059.82 (14.53)	957.35 (12.31)	877.89 (13.06)	967.27 (14.01)	784.82 (15.30)	496.03 (12.98)	444.09 (16.67)	2406.83 (13.21)	2561.83 (14.12)	2285.70 (11.78)	2380.05 (12.06)
Sugarcane	66.74 (0.99)	65.74 (0.91)	88.12 (1.13)	70.88 (1.06)	54.33 (0.78)	67.36 (1.31)	33.60 (0.88)	20.42 (0.77)	190.58 (1.04)	250.15 (1.38)	288.09 (1.48)	287.05 (1.45)
Fruits & vegetables	63.85 (0.95)	68.10 (0.93)	82.71 (1.07)	73.35 (1.09)	59.68 (0.87)	40.52 (0.79)	37.45 (0.98)	26.49 (0.99)	174.43 (0.96)	172.75 (0.95)	218.22 (1.12)	222.73 (1.13)
Cotton & other fibre crops	993.25 (14.72)	812.44 (11.14)	1195.07 (15.37)	1014.48 (15.09)	1150.50 (16.66)	590.48 (11.52)	557.18 (14.58)	307.20 (11.53)	2696.25 (14.80)	1872.73 (10.32)	2038.97 (14.63)	2749.19 (13.92)
Oilseed crops	624.54 (9.25)	693.92 (9.51)	607.59 (7.81)	663.38 (5.41)	664.76 (9.63)	502.76 (9.81)	305.63 (8.00)	113.87 (4.27)	1165.41 (9.14)	1690.84 (9.32)	1467.25 (7.56)	1254.05 (6.35)
Fodder crops	205.34 (3.04)	245.62 (3.37)	238.50 (3.07)	195.37 (2.91)	239.00 (3.46)	237.56 (4.63)	199.38 (5.22)	134.47 (5.05)	589.71 (3.24)	681.37 (3.75)	690.49 (3.56)	571.37 (2.89)
Condiments, spices & other misc. crops	142.61 (2.11)	101.27 (1.39)	65.05 (0.84)	62.03 (0.92)	139.39 (2.02)	16.18 (0.32)	30.09 (0.78)	20.22 (0.76)	417.41 (2.28)	180.78 (1.00)	165.07 (0.85)	174.81 (0.89)
Gross cropped area	6749.91 (100.00)	7294.18 (100.00)	7775.65 (100.00)	6721.66 (100.00)	6904.68 (100.00)	5125.43 (100.00)	3821.15 (100.00)	2664.46 (100.00)	18222.91 (100.00)	18146.88 (100.00)	19410.16 (100.00)	19742.39 (100.00)

(Figures in parenthesis are percentages to the gross cropped area)

cent of the gross cropped area during all the 4 censuses followed by pulses (ranging from 7.22 to 9.58 per cent) and oil seed (6.26 to 8.47 per cent).

Considering the period of 15 years the area under cash crops like oil seed, sugarcane and cotton tripled while that under the remaining crops nearly doubled. The gross cropped area of marginal holdings increased from 549.38 thousand hectares in 1970-71 to 1491.18 thousand hectares in 1985-86.

ii. Changes in the area under major crops in small holdings:

More or less similar pattern of change in area of marginal holdings under major crop groups exhibited by small holdings. The area under sugarcane, cotton and other fibre and oilseed crops was more than tripled and area under cereals, pulses, fruits and vegetables and gross cropped area was more than doubled during 1970-71 to 1985-86. The proportionate share of cropped area in small holdings showed increase in 1985-86 as compared to that in 1970-71 for all the crop groups except pulses, fodder, condiments, spices and other miscellaneous crops. The cereals occupied above 60 per cent of the gross cropped area, pulses above 9 per cent, oil seed crops above 8 per cent and cotton and other fibre crops above 12 per cent except 1976-77.

iii. Changes in the area under major crops in semi-medium holdings:

The area of semi-medium holdings during 4 censuses under consideration showed relatively smaller changes than those in marginal and small holdings. The area under cereals, sugarcane, fruits, vegetables, cotton and other fibre crops was more than doubled during the period from 1970-71 to 1985-86. All crops showed increasing proportion to gross cropped area during 4 censuses from 1970-71 to 1985-86. The share of cereals in the gross cropped area ranged

from 57.86 per cent in 1970-71 to 61.19 per cent in 1985-86. The pulses occupied above 11 per cent during all the 4 censuses; cotton and other fibre crops ranged from 9.02 per cent (1976-77) to 15.11 per cent (1980-81).

iv. Changes in the area under major crops in medium holdings:

The area of all crop groups showed increasing trend till 1980-81 which declined in 1985-86. The proportionate share of cereals in the gross cropped area showed increase from 55.41 per cent in 1970-71 to 60.46 per cent in 1985-86. The second major crop group cotton and other fibre crops, showed alternate declining and increasing trend. Considering the total period from 1970-71 to 1985-86, there was a drastic decline in oilseeds, condiments and spices and other miscellaneous crops and marginal decline in pulses and fodder crops was observed.

v. Changes in the area under major crops in large holdings:

The proportion of area to gross cropped area showed increasing trend for cereals, fruits and vegetable crop groups. As the number and area of large holdings was observed to be declining due to various reasons - ceiling legislation, sub-division, population pressure, the area under all crop groups (except sugarcane upto 1980-81) showed declining trend during the period of successive censuses and during the period from 1970-71 to 1985-86. The decline in the area was sharp in condiments and spices and other miscellaneous crops, followed by oilseeds, cotton and other fibre crops and sugarcane. The proportion of area to gross cropped area under cereals in large holdings increased from 52.57 per cent 1970-71 to 59.96 per cent in 1985-86. The

proportion of area under pulses, cotton and other fibre crops was 16.67 per cent and 11.53 per cent, respectively in 1985-86.

At the overall level the area under cereals, fruits and vegetables was observed to be increasing during the period of 4 censuses. The proportion of area under cereals increased from 55.33 per cent in 1970-71 to 61.31 per cent in 1985-86.

Thus, one may conclude that the area taken away from large size groups and distributed to smaller holdings seems to have been put under cereals. The area under cereals showed increasing trend for all size classes and also at the overall level. The area under other crop groups showed mixed trend, it may be because of the subsistence nature of farming in smaller size classes.

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7 . FACTORS AFFECTING THE STRUCTURAL DISTRIBUTION OF LAND HOLDINGS

7.1 GENERAL:

Land hunger is an important feature in the old countries in the world. Land is limited in nature while the population, particularly in under developed countries is increasing very rapidly. History also narrates wars for extension of territories, Kingdoms and Empires. In spite of industrial developments under five year plans in India, the fact remains that more than 70 per cent of the people still live in villages where agriculture is the major means of livelihood. Subject to static availability and greedy race for occupation of land, its distribution among the population of different economic classes assumes importance for the very survival of majority of the population dependent on agriculture. In addition to the land hunger, studies relating to structural distribution of land have also indicated various factors influencing it.

The analysis of the factors affecting the structural distribution of land holdings would be useful for the policy formulations.

Since independence, equality in the distribution of income has been one of the objectives incorporated in most of the earlier five year plans. In order to achieve this, many programmes were planned and implemented. However, the appraisal of the Five Year Plans indicated that the inequality was increasing. In view of this new strategies were adopted.

7.2 HISTORICAL ASPECTS AFFECTING LAND DISTRIBUTION:

Throughout the history of land tenure system in India prior to the British rule, efforts were confined to the realization of fixed amount of land revenue.

This resulted in the course of time, in multiplication of rights in land one superimposed upon another.

A century before the British rule the Zamindars had developed themselves as practical landlords and the position became hereditary in course of time. But it was during the British rule that in Bengal the private right in land was first granted by law to Zamindars as a matter of policy and revenue farmers were recognized as owners of lands.

The landlords gave lease to the cultivators who cultivated the lands of the village in which they resided. Such lease was given without limitation of time but with the express understanding that the lease was valid so long as they paid the rents from year to year. The emergence of the right of occupancy could be traced here.

The economic exploitation led to the social unrest affecting the relations among various class of proprietors-tenants and sub-tenants. The system of revenue attracted the people from outside, especially the money lender virtually replaced the Zamindars and land slipped from the hands of cultivating proprietors to the hands of non-cultivating owners who went on increasing the size of their ownership.

The oppression and exploitation of the peasantry, let loose under Zamindar system drew the attention of the leaders of the Indian National Congress during the early parts of 20th century. It was admitted that the poverty, unemployment and other related problems of the village community were all due to the antiquated and repressive land tenure and revenue system. The nationalist political movement tried to harness agrarian discontent to their own use after 1920, only upto a limit. The achievement of peasant revolts in India was limited to some legislation or ameliorative measure until the new era of progressive land reforms began in around 1949-50.

7.3 LAND REFORMS IN INDIA:

The independent India inherited the pattern of distribution of holdings was one of inequalities - only 24 per cent land owned by 65 per cent marginal, small and semi-medium holdings leaving above 75 per cent land to 35 per cent big land owners. It was felt that this structure was not conducive to accelerate agricultural productivity to a level sufficient enough to create the necessary base for economic growth.

In order to remove several anomalies from the agrarian system and ensure equality and social justice in the society, the Agrarian Reforms Committee in 1949 suggested to the Central Government a concrete land policy with series of land reform measures.

The land reforms were given a special place in the Indian Five Year Plans. A comprehensive land policy was set up in the plans for the elimination of the intermediary rights, tenancy reforms, imposition of ceiling on land holdings, consolidation of holdings, prevention of fragmentation *etc.*

Thus, the land reforms aim at not only redistributing ownership holdings but also of reorganizing operational holdings from the view point of optimum utilization of land.

7.4 LAND REFORMS IN MAHARASHTRA:

The land reform policy is formulated at the national level and the issue of implementation of the land reforms is left to the individual State Government.

Maharashtra is a pioneering state in the implementation of various land reform measures, particularly the tenancy reforms and ceiling on land holdings. The impact of the Tenancy Act in the State is proved beyond doubt by the Agricultural Census data on ownership holdings. The wholly owned holdings increased from 45.98 lakh (91.86 per cent) in 1970-71 to 80.30 lakh holdings (99.14

per cent) in 1985-86. The corresponding increase in the area was from 189.50 lakh hectares (89.51 per cent) to 209.52 lakh hectares (98.50 per cent). The decline in number as well as area of wholly rented holdings was in the range of 81 to 86 per cent in all the size classes during the period from 1970-71 to 1985-86. The Maharashtra Agricultural Lands (Ceiling on Holdings) Act, 1961 was passed by the Maharashtra State Government and brought into force from January 26, 1962. It has also some impact on the distribution of land holdings.

7.5 UPWARD OR DOWNWARD MOVEMENTS IN SIZE CLASSES:

As noted earlier, land reform measures had an impact on the distribution of land holdings. The ladder process functioning in upward or downward direction could be the prominent factor influencing the structural distribution of land holdings. In upward manifestation, it would mean landless workers acquiring land and becoming land owners or small land owners by the same process emerging as medium land owners, etc. The ladder can work in reverse direction also when medium land owners lose land and take up the ranks of small land owners, small land owners are pushed to the marginal owner category and marginal owner join the ranks of landless. However, it is difficult to precisely pin point as to how the present distribution has emerged.

In the present analysis the upward ladder process could be observed (Chapter IV). The total number of operational holdings in the state increased from 49.51 lakh in 1970-71 to 81.01 lakh in 198-86 with an area increase from 211.89 lakh hectares to 213.86 lakh hectares in the respective years. The operational holdings of marginal, small and semi-medium size groups showed an increasing trend from 1970-71 to 1985-86 against the decline in the large size group. The number of holdings in the medium size group showed an increasing trend from 1970-71 to 1980-81 but it declined in 1985-86. Here, the downward

movement was noted in the medium size holdings during the period from 1980-81 to 1985-86 and in the large holdings during all the 4 censuses under reference.

7.6 DEMOGRAPHIC PRESSURE:

Demographic pressure on land has been indicated as one of the important factors affecting the structural distribution of land holdings.

The growing population in rural areas having no alternate employment opportunities has to depend on farming for their very survival. The population in Maharashtra which was 504 lakh in 1971 increased to 570, 627 and 697 lakh in 1977, 1981 and 1986, respectively.

The influence of population on land could be more appropriately measured by land:man ratio. The land:man ratios based on net sown area for Maharashtra worked out to be 0.67, 0.53 and 0.47 for the years 1961, 1971 and 1981, respectively. The declining land-man ratio is the sign of increasing pressure of population on land. It also influences the structural distribution of land holdings.

7.7 OTHER FACTORS:

There are number of other factors, one comes across in different studies. Some of them are of general nature while some may be applicable to a particular area. For instance Prannoy Roy (1983) put forth that 'Hindu laws of inheritance' exert pressure on land and divide it into small holdings. Bimankar (1986) add ethical and ideological basis in the list of factors affecting structural distribution. Special development schemes like exemption of rubber plantation from ceiling of land, different slab rate for income tax affect land distribution as noted by Viju Ipec (1987) in Kerala.

The break down of joint family system is also responsible for partitioning of the holdings. This can be supported by comparing the structural changes during 1980-81 and 1985-86 in the state. The number of joint operational holdings were 3, 83, 230 during 1980-81 which declined to 3, 02, 090 during 1985-86 (21.17 per cent decline). For the same period the area under joint operational holdings reduced from 13, 28, 430 ha to 9, 69, 360 ha. (27.03 per cent decline). This decline was observed in all the categories of farm size groups.

Government is emphasizing on full development of available irrigation potential which leads to construction of major, medium and minor irrigation projects. The holdings and area coming under submergence of these projects also affects the structural distribution of land holdings.

Government acquires lands for public purposes like roads, industrial estates, housing complexes, universities, research stations and co-operative sugar factories etc. which also bring in changes in the structural distribution of land holdings.

The project affected land holders are allotted new lands for their resettlement which affects the present structural distribution of land holdings.

In medium size class the area as well as the percentage to total showed increasing trend from 1970-71 to 1980-81 but both area and percentage declined during 1985-86. It may be that in recent years medium holdings are being splitted up to come in the category of small ad marginal farmers to take the advantage of Government subsidy schemes meant for small and marginal farmers.



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8 . SUMMARY , CONCLUSIONS AND POLICY IMPLICATIONS

8.1 SUMMARY:

Soon after independence, exploitative land tenures like Zamindari, Mahalwari etc. were abolished. Series of land reform measures have been advocated to reduce the disparity in land distribution. However, the success of land reform measures in reducing the disparity in the distribution of land holdings varied from state to state. It was because the policies were formulated at the national level; while the enactment and their implementation was left to the state Government. It is, therefore, important to study the changes in the structure of land holdings in the individual state. Such study would throw light on the performance of land reforms and may serve as the basis for future planning. In the past such studies have been conducted based on the National Sample Survey data, which has many limitations. Now, there is a vast information available in the decadal Agricultural census reports for 1970-71 and 1980-81 as also the mid-decadal sample surveys for 1976-77 and 1985-86. The more accurate and reliable data available in these reports is not put to further analysis to the desired extent.

It may also be pointed out that there is not a single study analysing the district level data along with the state level data. The outcome of such analysis at a lower level administration, i.e., district level may help in policy formulation. Therefore, the present study, "Changes in the Structure of Land Holdings in Maharashtra" has been undertaken with the following specific objectives.

1. To study the changes in the structural distribution of land holdings in Maharashtra over a period of time (1970-71 to 1985-86);

2. To study the changes in the structural distribution of land holdings at district level;
3. To study the changes in land use, irrigation and cropping pattern; and
4. To study the factors affecting the changes in the structural distribution of operational land holdings in the state.

The secondary data collected in the decadal Agricultural Censuses of 1970-71 and 1980-81 and the sample Agricultural censuses of 1976-77 and 1985-86 have been used. For proper comparison, the data were grouped in the uniform predetermined size class of holdings, viz. marginal (below 1.00 ha), small (1.01 to 2.00 ha), semi-medium (2.01 to 4.00 ha), medium (4.01 to 10.00 ha) and large (above 10.00 ha).

During 1980's new districts, viz. Sindhudurg, Jalna, Latur and Gadchiroli were formed by partitioning of Ratnagiri, Aurangabad, Osmanabad and Chandrapur districts, respectively. Thus, number of the districts in the State which was 26 in 1970's increased to 30 in 1980's. This problem was overcome by keeping the earlier number of districts constant by merging the data appropriately. However, the Bombay Suburban District was excluded from the analysis as it formed smaller fragment in the totality and the area was also declining due to urbanization.

The Agricultural census data suitably clubbed in the pre-determined farm size groups as indicated above were compiled. The changes in the distribution of operational and ownership holdings were studied at the state level and district level. The operational holdings were sub-categorised into individual operational holdings, joint operational holdings and institutional operational holdings. The ownership holdings were sub-categorised into wholly owned holdings, wholly rented holdings and partly owned/rented holdings. The changes in the distribution of holdings in all these categories were analysed

separately. The analysis of changes in the structural distribution of holdings was carried out both for the number of holdings and the area under that category separately. The changes in the percentage distribution of holdings for the above categories was also attempted separately. The data relating to the four censuses were compared for ascertaining the changes by estimating percentage changes from census to census and during the total period (1970-71 to 1985-86).

Gini Co-efficient, the most widely used index in India was used to study the inequality in the land distribution. The following formulae were used.

$$\text{Gini Co-efficient (G.C.)} = 1 - \sum \frac{X_i (Y_i + Y_{i-1})}{(100)^2}$$

where,

- X_i = Percentage of number of operational holdings for i^{th} size class.
- Y_i = Cumulative percentage of area of operational holdings upto i^{th} size class.
- Y_{i-1} = Cumulative percentage of area of operational holdings for $(i-1)^{\text{th}}$ size class.

Farm size groupwise distribution of number of holdings and area operated by them was studied through Lorenz curve.

The changes in land use, irrigation and cropping pattern were also studied. An attempt was made to identify the possible factors affecting the changes in the structural distribution of land holdings. The results are summarised below:

RESULTS:**A. The Changes in the Structural Distribution of Land Holdings at the State Level:****I. Operational holdings:**

1. The total number of operational holdings in the state increased from 49.51 lakh in 1970-71 to 81.01 lakh in 1985-86 with an area increase from 211.89 lakh hectares to 213.86 lakh ha, respectively.
2. The operational holdings in marginal, small and semi-medium size groups were increasing from 1970-71 to 1985-86 against the decline in medium and large size groups, thus reducing the disparity in the distribution to some extent.
3. The disparity in the distribution of area amongst different size classes was very clear during all the census years. The latest position (1985-86) showed that 30.71 per cent marginal farmers operated 5.77 per cent of the total land and 2.91 per cent large holdings operated 16.88 per cent of the total land. The results confirm the general statement that there is an inequitable distribution of land among the farm size groups.
4. Both the number of holdings and their area increased above 100 per cent in marginal group, above 140 per cent in small group, about 80 per cent in semi-medium group and about 8 per cent in medium groups, whereas it declined by about 50 per cent in the large holdings during the period from 1970-71 to 1985-86.
5. During 1985-86, the largest proportion of operational holdings belonged to the category of 'individual' operational holdings (96.15 per cent) followed by 'joint' operational holdings (3.73 per cent) while the 'institutional' operational holdings were very few (0.12 per cent).
6. The 'individual' operational holdings, the most important category, showed an increase in the number during 1985-86 over that in 1970-71 to the extent of double in marginal, 2.5 times in small, 1.80 times in semi-medium, little in medium size group and decline of more than half in the large size group. More or less a similar trend was observed for the area under this category. This analysis indicated that the inequality in the land distribution was reduced to some extent in 1985-86 as compared to that in 1970-71.
7. There was a substantial increase both in the number of joint operational holdings and their area in marginal, small, semi-medium and medium holdings and a decline in large sized 'joint' operational holdings in the year 1985-86 over that in 1970-71.
8. The number of 'institutional' operational holdings in all the categories increased during 1980-81 as compared to that in 1976-

77. However, they showed a little decline during 1985-86 with the exception of large size category, which showed little increase.

II. Ownership holdings:

1. The ownership holdings showed increase in the number from 49.51 lakh in 1970-71 to 80.99 lakh in 1985-86. The area owned by these holdings increased from 211.69 lakh hectares to 212.59 lakh hectares for the respective years. Thus, there was a substantial increase in the number under this category during 15 years period. However, the area did not increase to that extent.
2. The predominant sub-category of ownership holdings was the 'wholly owned' holdings. The number of holdings in this category increased from 45.48 lakh (91.86 per cent) in 1970-71 to 80.30 lakh (99.14 per cent) in 1985-86. The corresponding increase in the area was from 189.50 lakh hectares (89.51 per cent) to 209.52 lakh hectares (98.56 per cent).
3. Considering the total period of 15 years, both number and area of small farm size group increased over 150 per cent. It was followed by marginal, semi-medium and medium size groups of wholly owned holdings.
4. There was in all 151.41 thousand 'wholly rented' holdings having 490.50 thousand hectares of land in 1970-71 which declined to 25.73 thousand and the area declined to 97.53 thousand hectares in 1985-86. This decline in the number as well as the area was in the range of 81 to 86 per cent in all size classes during the period from 1970-71 to 1985-86. It might be the effect of rigorous implementation of the tenancy legislations in Maharashtra. Many wholly rented holdings were reduced and replaced by the wholly owned holdings.
5. In 1970-71, the number of 'partly owned/rented' holdings were 2.52 lakh (5.08 per cent) which was reduced to 43 thousand (0.54 per cent) in 1985-86. The corresponding decline in the area was from 17.29 lakh hectares (8.17 per cent) to 2.10 lakh hectares (0.99 per cent).

III. The study of inequality in the structural distribution of land holdings:

1. **Gini Co-efficient:** The inequality in the land distribution was measured by using Gini Co-efficients which indicated a declining trend. The Gini Co-efficients worked out to 0.5280, 0.5104, 0.4938 and 0.4899 for the census years 1970-71, 1976-77, 1980-81 and 1985-86, respectively. Thus, the inequality in the structural distribution of land holdings was found to be slowly reducing.

2. **Lorenz Curve:** Lorenz curves were drawn for the four census years. During the period of 15 years an overall decreasing inequality was observed.

B. The Changes in the Structural Distribution of Land Holdings at the District Level:

I. Operational holdings:

1. The number of operational holdings in marginal, small, semi-medium size groups showed an increasing trend in all the districts, while there was a clear declining trend in the large size group and a mixed trend in the medium size group of holdings during the period from 1970-71 to 1985-86. A similar picture was depicted in respect of area of operational holdings.
2. The drastic changes in the number as well as the area of operational holdings were observed in Aurangabad, Parbhani, Beed, Nanded, Osmanabad (Marathwada region), Yavatmal (Vidarbha), Dhule and Ahmednagar districts (Western Maharashtra).
3. During 15 years period, the large holdings declined in the range of 50 to 75 per cent; while small and marginal holdings increased 4 times. Holdings in semi-medium size group nearly doubled. The area of large holdings formed about 40 per cent of the total in 1970-71 declined to less than 20 per cent in 1985-86. Thus, nearly half of the area of large holdings in these districts was divided to size classes below 10 hectares. Thus, it can be said that the process of converting large holdings into smaller ones was noticed.
4. The decline in both number and area under medium holdings was observed in Dhule, Jalgaon, Ahmednagar, Satara, Sangli, Kolhapur (Western Maharashtra) and Bhandara (Vidarbha) during the period from 1970-71 to 1985-86.
5. The number and area of 'individual' operational holdings was increasing in the size classes below 4 hectares and declining in large holdings during the period under study.
6. More than four fold increase in the number and area of marginal and small holdings in Aurangabad, Parbhani, Yavatmal indicated the process of diminuting large holdings in the Marathwada region. It was followed by the Vidarbha region. The Konkan region already had the predominance of marginal and small holdings.
7. The process of diminution of large holdings was relatively more rapid in Beed district as the net increase in number of holdings was over 100 per cent.
8. At the overall level, the number of 'joint' operational holdings declined only in Wardha, Nagpur, Buldhana and Kolhapur districts; while the area under the category declined in Wardha, Nagpur,

Buldhana, Kolhapur and Pune districts during the period from 1970-71 to 1985-86. The drastic increase (above 1000 per cent) was observed in Ahmednagar, Satara, Sangli, Aurangabad and Amaravati districts.

9. There was an increase in the number of holdings as well as area in marginal, small and semi-medium size groups in all the districts with the exception of Kolhapur, Wardha and Nagpur. The proportionate share of below 4 ha size groups in number of holdings increased from about 40 per cent in 1970-71 to 70 per cent in 1985-86. Whereas, the area ranged from 2 per cent to 40 per cent in 1970-71 and 15 per cent to 65 per cent in 1985-86.

II. Ownership holdings:

1. The number of 'wholly owned' holdings at the overall level showed increasing trend during the period under study in all the districts except Kulaba and Amaravati for the period from 1980-81 to 1985-86.
2. During the period from 1970-71 to 1985-86, the number of holdings doubled in Aurangabad, Parbhani, Beed, Nanded, Osmanabad (Marathwada region), Yavatmal (Vidarbha) and Dhule (Western Maharashtra) districts.
3. There was substantial decline in the number of 'wholly owned' marginal holdings in 1985-86 as compared to that in 1980-81 in all the districts except Thana, Kulaba, Ratnagiri where existing marginal holdings were on higher side.
4. The number of 'wholly owned' holdings in the marginal, small and semi-medium groups showed a substantial increase; while the medium size group showed a marginal increase. However, the number in the large size group in this category showed a clear decline in all the districts during the period from 1970-71 to 1985-86.
5. The proportionate share of wholly owned holdings below 4 hectares size groups in the total holdings ranged from 40 per cent to 95 per cent (1980-81 Kolhapur); the proportionate area also increased.
6. The area of marginal and small holdings in districts of Marathwada region, Dhule, Ahmednagar (Western Maharashtra) and Yavatmal (Vidarbha) tripled whereas, the area of large holdings declined in the range of 50 to 70 per cent in these districts during the period from 1970-71 to 1985-86.
7. The decline in the area of large size groups was more than 90 per cent in 1980-81 over 1976-77.
8. There was an indication that the area under marginal, small, semi-medium size groups increased against the decline in medium size group in the Western Maharashtra and against the decline in the large size group in the remaining districts of the state.

9. Drastic changes were noted for wholly owned holdings in Aurangabad, Parbhani, Beed, Nanded, Osmanabad, Yavatmal, Ahmednagar and Dhule districts.
10. The 'wholly rented' holdings and their area declined in all the districts in all the size groups of holdings throughout the period of 4 censuses under study.
11. The number of 'wholly rented' holdings at the overall level were reduced to less than 100 in Nagpur and Bhandara districts. The number was reduced to about 1000 in all the districts except Thana, Kulaba, Ratnagiri (Konkan), Ahmednagar, Solapur, Kolhapur (Western Maharashtra), Aurangabad (Marathwada), Buldhana, Akola, Amaravati and Yavatmal (Vidarbha).
12. During the period of 15 years (1970-71 to 1985-86), more than 80 per cent decline in number and area of wholly rented holdings was noted at the overall level in all the districts barring few exceptions (Ratnagiri, Solapur, Buldhana and Akola).
13. The number of 'partly owned/rented' holdings in all the size classes at the overall level was observed to be declining drastically (more than 75 per cent) during the period from 1970-71 to 1985-86.
14. The area of 'partly owned/rented' holdings declined by more than 80 per cent during 1970-71 to 1985-86 in all the districts except the districts of Konkan region and Nasik district (Western Maharashtra).

III. The study of inequality in structural distribution of land holdings:

1. Gini Co-efficient:
 - i. Over the period, the Gini Co-efficients showed decreasing inequality trend for all the districts except Beed, Nanded and Osmanabad (Marathwada region). The Gini Co-efficient for Ratnagiri district was the highest during 1970-71 (0.6410) and the lowest for Yavatmal district in 1985-86 (0.3845).
 - ii. In terms of percentage, Jalgaon district showed a high percentage decline in Gini Co-efficient (17 per cent). In the remaining districts, the coefficients varied from 1 per cent to 14 per cent.
 - iii. The analysis of variance for all the districts and four periods showed that the variation was significant at 5 per cent level. The value of 'f' worked out to be 13.05.
2. Lorenz Curve: The curves showed more deviation towards the line of equality for the census year 1985-86 over that in 1970-71 in

Akola, Amaravati, Jalgaon and Ahmednagar districts which had relatively more equitable distribution of land holdings.

C. The Changes in the Land Use, Irrigation and Cropping Pattern:

1. Land use analysis indicated continuous increasing trend in the net cultivated area in small, marginal, semi-medium size groups from 1970-71 to 1980-81. However, in medium size group category, there was increase in descending trend; while there was a clear declining trend in the large size group.
2. The uncultivated land declined in all size groups during the period form 1970-71 to 1985-86. At the overall level, the decline was to the extent of 53.40 per cent.
3. During the 15 years period under study the number of unirrigated holdings increased by 74.47 per cent and the area under this category increased by 26.33 per cent. However, the number of irrigated holdings increased by 113.39 per cent with an area increase of 117.44 per cent. Thus, the increased irrigation facilities may be one of the factors influencing the structural changes in the size of holdings.
4. The total area belonging to marginal and small farmers during the study period increased by 113 and 144 per cent respectively. However, the gross cropped area increased by 171 and 183 per cent respectively. This indicated the increase in the cropping intensity during the period under study.
5. The area under cash crops like sugarcane, fruits and vegetables, cotton, oilseeds increased more than 2 times in small and marginal holdings during the study period.
6. The increase in the area under forage crops in marginal and small size groups of holdings was the indication of enhanced dairy activity in those size groups.
7. The total area belonging to semi-medium group increased by 76 per cent while the gross cropped area by 94 per cent. The area under cereals, pulses, sugarcane, fruits, vegetables and cotton also increased.
8. During the period (1970-71 to 1985-86), under study th total area under medium and large size groups of holdings increased by 2 per cent and declined by 57 per cent, respectively. However, the gross cropped area in these size classes declined by 0.41 and 61.41 per cent, respectively. This indicated the decline in the cropping intensity in medium and large size classes of holdings.

**D. Factors Affecting the Changes
in the Structural Distribution
of Land Holdings:**

It may be mentioned here that it is very difficult to precisely attribute a factor for a particular change noted in the above analysis. However, while analysing a particular change, a mention has been made of a probable factor. It is also possible that more than one factor may have influenced a particular change. Few broad general factors influencing in the structural distribution of land holdings in the State during census years under study and changes therein, are indicated below in brief.

1. **Demographic pressure:** The population of the state increased from 5.04 crores in 1971 to 6.28 crores in 1981 and estimated at 6.97 crores in 1986. With the increase in the population land might have got divided and sub-divided among larger number of people, which has been indicated in the increase in the number of holdings.
2. **Laws of inheritance:** According to the prevailing laws of succession (Hindu Law, Muslim Law), all sons and daughters are entitled to an equal share in the ancestral property. As a result, the agricultural holdings get divided and sub-divided with every generation. In India, land is considered as a matter of prestige, social status and security. Due to lack of alternate opportunities of employment, there is more pressure of population on the existing land. The process of diminution of holdings noted in the above analysis may be due to this factor also.
3. **Land reform measures:**
 - i. The rigorous implementation of the tenancy legislations in the state is also an important factor influencing the structural distribution of land holdings. A substantial reduction in the wholly rented holdings and simultaneous increase in the wholly owned holdings is a clear indication of this. A drastic reduction in the area of rented holdings has helped in narrowing the gap between owned holdings and operated holdings.
 - ii. Under the ceiling legislations land over and above the prescribed ceiling limits was declared as surplus and redistributed to the landless labourers and marginal farmers. This might have also affected the size classwise distribution of holdings noted earlier.
4. Sub-division of large holdings into small and marginal categories might have been made intentionally with a view to reap the benefits

of various Government schemes involving subsidies and credit at a cheaper rate of interest *etc.* It might be the factor responsible for abnormal increase in the number of small and marginal holdings over a period of time noted in the above analysis.

5. The social ladder process functioning in upward or downward direction may also influence the structural distribution. In upward manifestation, it would mean landless workers acquiring more land and becoming marginal land owners, marginal land owners acquiring land and becoming small land owners and so on or vice versa. The study indicates that the downward process is more prominent. The upward movement might have also operated to some extent but it might be more so upto semi-medium size group.
6. The break down of joint family system is also another factor leading to partition of the holdings. We have got some indication of this factor in our analysis. The total number of joint operational holdings in the state was 3,83,230 in the year 1980-81 which declined to 3,02,090 in the year 1985-86.

8.2 CONCLUSIONS:

From the above discussion the following conclusions could be drawn.

1. There still existed concentration of large acreage of land with the few large sized holdings; while a very large number belonged to size groups below 4 ha but their operational area was meagre.
2. The inequality in the land distribution among farm size groups was found to be slowly declining. Various legislations enacted by the Government of Maharashtra (Tenancy Acts, Ceiling on land holdings 1961 Act, *etc.*) seems to have made lot of impact on the distribution of land holdings as also in reducing the inequality to some extent.
3. Amongst the sub-categories of operational holdings, the 'individual' operational holdings dominated (96.15 per cent in 1985-86). The other sub-categories showed a decline indicating break-down of joint families. In other words, the social change (breakdown of joint families) has accelerated the structural changes in land distribution.
4. It is also alleged that splitting up of large holdings might have been done to evade land ceiling legislations.
5. The increase in small holdings during the period from 1980-81 to 1985-86 might be due to purposeful splitting of holdings to come in the categories of small and marginal farmers to reap the benefits of Government subsidies and concessions for small and marginal farmers.
6. The predominance of 'wholly owned' ownership holdings (91.86 per cent in 1970-71 to 99.14 per cent in 1985-86) indicated almost

complete abolition of the tenancy system. This shows the effective implementation of Tenancy Acts in the state.

7. From the district level analysis, we can conclude that farm size groups below 4 ha gained against the loss of large size group and medium size group showed marginal changes in both positive and negative direction, for number as well as the area of operational holdings.
8. The process of diminution of large holdings to smaller ones was prominent in the districts of Marathwada region followed by Vidarbha region. It might have happened to evade land ceiling legislations. This might also be because of socio-economic changes like breakdown of joint families, sale of land, etc.
9. The drastic changes in few districts like Aurangabad, Parbhani, Beed, Nanded, Osmanabad, Yavatmal, Ahmednagar, Dhule indicated declining predominance of previously existing large holdings. These were the districts where more inequality in the land distribution existed earlier and the process of its reduction was started during the period under study.
10. Taking Gini Co-efficient as the index of inequality, the highest decline was noted in Jalgaon district during 1970-71 to 1985-86.
11. More and more land brought under plough as inferred from continuous decline in uncultivated land for all size classes.
12. The size of holdings in irrigated area tends to be smaller confirmed by increase in irrigated holdings above unirrigated one. Thus, increased irrigation facility influenced the structural changes in size of holdings.
13. The factors influencing changes in structural distribution of land holdings could be listed as below:
 - a. The pressure of population coupled with the laws of inheritance;
 - b. Land reform measures - Tenancy Acts, Ceiling Legislations;
 - c. The social ladder process functioning in upward and downward direction; and
 - d. Socio-economic changes in the society.

8.3 POLICY IMPLICATIONS:

1. The structure of land holdings in Maharashtra had shown some signs of changes in the direction of an equal distribution. However, the process needs further acceleration.
2. A very large increase in the marginal and small holdings had resulted in a larger increase in the non-viable farms as evidenced from some other studies. In view of this, it is suggested that steps be taken to arrest the drastic increase in marginal and small non-viable holdings.
3. Lowering the ceiling limits on holdings and redistributing the surplus land to the landless persons or weaker sections of the society, did not solve the problem of rural poverty. In view of this it is suggested that while redistributing the surplus land, consideration be given to create economically viable units.
4. In the policy for redistribution of land holdings through land reforms, there is a need for adopting a multidimensional approach. Along with equity, other parameters like efficiency, economic viability, diversification of rural economy and rapid development of secondary and tertiary sectors of our economy, should also be considered.
5. The rates of labour absorption in both the agricultural and non-agricultural sectors of the state are not adequate to meet the challenge posed by rapid growth of landlessness. The policy makers should tackle the problem in an integrated manner through far more radical redistribution of land.



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LITERATURE CITED

- Adhvaryu, J.H. 1971. 'Land ceiling a traditional view' *Artha Vikas, Vallabha Vidyanagar*, 7(2):55-59.
- Asthana, B.N. and P.C. Shukla. 1976. 'Structural changes and joint holdings,' *Ind. Jour. of Ag. Econ.* 31(3):55.
- Autkar, U.N. and N.A. Gadre. 1981. 'Micro analysis of structural changes in agricultural holdings as a result of land reform measures since independence - A case study', *Ind. Jour. of Ag. Econ.* 36(4):190.
- Bal, H.K., H.S. Bal and Rajendra Prasad. 1981. 'Changes in the size distribution of farm holdings in Punjab: district-wise analysis', *Ind. Jour. of Ag. Econ.* 36(4):184.
- Bergmann, Theodor. 1984. 'Agrarian Reforms in India', *Agricole publishing Academy, New Delhi.*
- Bhattacharjee, S. and M.N. Singh. 1976. 'Structural changes in land holdings distribution - Bihar, *Ind. Jour. of Ag. Econ.* 31(3):49.
- Bhole, B.D. and S.S. Marawar. 1987. 'Spatio-temporal analysis of magnitude and composition of assets in rural Vidarbha', *Ind. Jour. of Ag. Econ.* 42(3):345.
- Bimankar. 1986. 'Ideological basis for agrarian reforms' in the book "Land Reforms and Peasant Movement" *Edi. by A. Goswami, Omsons publication, New Delhi.*
- Chatha, I.S., Jogindar Singh and S.S. Grewal. 1986. 'Land lease market, its impact on operational holdings in Punjab', *Ind. Jour. of Ag. Econ.* 41(4):556-557.
- Dadibhavi, R.Y. 1986. 'Changing agrarian structure and productivity in India', *Ind. Jour. of Ag. Econ.* 41(4):554-556.
- Dahiya, L.N. 1976. 'Changes in the structural distribution of land ownership and use in India', *Ind. Jour. of Ag. Econ.* 31(3):47.

- Dantwala, M.L. and C.H. Shah. 1971. 'Pre-reform and post-reform agrarian structure', *Ind. Jour. of Ag. Econ.* 26(3):183-200
- Dantwala, M.L. 1987. 'Rural assets distribution and composition of labour force', *Ind. Jour. of Ag. Econ.* 42(3):27.
- Dhar, M.N. 1976. 'Structural and tenurial system of land holdings in Jammu and Kashmir State', *Ind. Jour. of Ag. Econ.* 31(3):50.
- Dhongade, M.P. 1976. 'An analysis of the structural distribution of land ownership and use in Maharashtra', *Ind. Jour. of Ag. Econ.* 31(3):52.
- Dutta, L.N. 1988. 'Structure and distribution of land holdings in Bihar-A temporal analysis', *Agril. situation in India.* 43(7):597-602
- Gadre, M.V. 1977. 'Changes in the structural distribution of land holdings: A case study in Western Maharashtra', Unpublished M.Sc. (Agri.) Thesis, Mahatma Phule Agricultural University, Rahuri, M.S. India.
- Gadre, N.A., D.P. Wahile and V.D. Galgalikar. 1987. 'Structural changes in ownership of land in a ryotwari village of Vidarbha Region', *Ind. Jour. of Ag. Econ.* 42(3):351.
- Galgalikar, V.D., N.A. Gadre and C.K. Joshi. 1976. 'Changes in structural distribution of land holdings- A case study', *Ind. Jour. of Ag. Econ.* 31(3):32-35.
- George, P.T. 1968(a). 'Changes in the land holdings consequent to the abolition of the intermediaries', *Ind. Jour. of Ag. Econ.* 23(1):38.
- George, P.T. 1968(b). 'A comparative review of five land reform studies sponsored by the research programme committee', *Ind. Jour. of Ag. Econ.* 23(3):30-45.
- Ghosh, M.G. 1981. 'Impact of new technology on land structure through changes in the lease market: A case study in Bengal district', *Ind. Jour. of Ag. Econ.* 36(4):148-157.
- Ghosh, Ratan. 1976. 'Effect of agricultural legislation on land distribution in West-Bengal', *Ind. Jour. of Ag. Econ.* 31(3):40-46.

- Goswami, Atul. 1986. 'Land Reforms and Peasants Movements' Omsons Publication, New Delhi.
- Government of Maharashtra. 1976. 'Report on Agricultural Census 1970-71, Maharashtra State - Part I and II', Department of Agriculture, Maharashtra State.
- Government of Maharashtra. 1980. 'Report on Agricultural Census 1976-77, Maharashtra State - Part I and II', Department of Agriculture, Maharashtra State.
- Government of Maharashtra. 1988. 'Report on Agricultural Census 1980-81, Maharashtra State - Part I and II', Department of Agriculture, Maharashtra State.
- Government of Maharashtra. 1990. 'Report on Agricultural Census 1985-86, Maharashtra State - Part I and II', Department of Agriculture, Maharashtra State.
- Grewal, S.S. and P.S. Rangi. 1981. 'An analysis of agrarian structure in Punjab', Ind. Jour. of Ag. Econ. 36(4):173-183.
- Gupta, D.P. and V.K. Singh. 1987. 'Changes in structure of land holdings in Haryana', Ind. Jour. of Ag. Econ. 42(3):353.
- Haque, I. 1987. 'Temporal and regional variations in the agrarian structure in India', Ind. Jour. of Ag. Econ. 42(3):313.
- Harpal Singh. 1976. 'Structural changes in the size distribution of holdings - A micro view, Ind. Jour. of Af. Econ. 31(3):10-14
- Jain, K.K. 1984. 'Structural distribution of operational holdings in different zones of Punjab', Ind. Jour. of Ag. Econ. 39(2):251-257.
- Kasar, D.V. and T.K. T. Acharya. 1976. 'A microlevel study into the land leasing practices of the farmers in Western Maharashtra', Ind. Jour. of Ag. Econ. 31(3):53.
- Kumbhar, B.V. 1976. 'Changes in the structural distribution of land ownership and operation in rural Rajasthan', Ind. Jour. of Ag. Econ. 31(3):54.

- Ladejinsky Wolf. 1972. 'Land ceiling and land reforms' Economic and political Weekly, 7(5):401-408.
- Laxminarayan, H. and S.S. Tyagi. 1976. 'Some aspects of size distribution of agricultural holdings', Economic and political Weekly, 11(41):163.
- Laxminarayan, H. and S.S. Tyagi. 1983. 'Changes in Agrarian Structure in India', Agricole Publishing Academy, New Delhi.
- Mahajan, V.S. 1983. 'Growth of Agriculture and Industry in India', Deep and Deep publication, New Delhi.
- Malik, R.P., Khodpia and A.S. Guleria. 1976. 'Changes in the structural distribution of land in rural India', Ind. Jour. of Ag. Econ. 31(3):48.
- Marothia, D.K. 1976. 'A study of land ownership in two villages of Madhya Pradesh', Ind. Jour. of Ag. Econ. 31(3):51-52.
- Misra, S. 1974. 'Land reforms and the structure of holdings in Uttar Pradesh', Ind. Jour. of Econ. 29(1):447.
- Pal, Dipti Prakash and G.P. Pal. 1981. 'Changes in agrarian structure and productivity- An entropy analysis in India', Ind. Jour. of Ag. Econ. 36(4):134-142.
- Pandey, R.K. and Shanti Sarup. 1981. 'Changes in pattern of land holdings in relation to productivity in India', Ind. Jour. of Ag. Econ. 36(4):159-166.
- Pandey, R.K. and Shanti Sarup. 1986. 'Study of structural changes in land holdings - emerging trends and its implications,' Ind. Jour. of Ag. Econ. 41(4):555-556
- Patnaik, S.C. 1987. 'Agrarian structure and tenurial relations in Orissa', Ind. Jour. of Ag. Econ. 42(3):350.
- Rajgopalan, R. and Anuradha. 1987. 'Structural changes in land holdings of Thanjavur Dist. of Tamil Nadu', Ind. Jour. of Ag. Econ. 42(3):307-312.
- Rao, M. Kutumb. 1978. 'Land ceiling and redistribution', Kurukshetra, 26(20):6-7.

- Roy, Prannoy. 1983. 'Sub-division of land and soil quality biases: A study of property rights in Indian agriculture', *Ind. Jour. of Ag. Econ.* 38(2):192-201.
- Saikia, P.D., K. Gogi and K.K. Bora. 1976. 'Changes in the distribution of land holdings and its use in Assam', *Ind. Jour. of Ag. Econ.* 31(3):49.
- Sain, K. 1976. 'Structural distribution of land ownership and use in West Bengal', *Ind. Jour. of Ag. Econ.* 31(3):55.
- Sandhu, P.S. and S.S. Grewal. 1987. 'The changing land holdings structure in Punjab', *Ind. Jour. of Ag. Econ.* 42(3):294-300.
- Sanyal, S.K. 1970. 'Household holdings in Punjab', *Economic and Political Weekly.* 5(34) Aug.22,:1425.
- Sharma, M.L., Ramkumar and Chander Bhan. 1976. 'Structural distribution of land holdings in Haryana', *Ind. Jour. of Ag. Econ.* 31(3):50.
- Shrivastav, Narayani. 1987. 'Structural changes in the land holdings of Madhya Pradesh', *Ind. Jour. of Ag. Econ.* 42(3):349.
- Sirohi, A.S., G.S. Ram and B.B. Singh. 1976. 'Inter state disparities in the structural distribution of land holdings in rural India', *Ind. Jour. of Ag. Econ.* 31(3):14-23.
- Somasekhara Rao, V.B.R.S. 1976. 'Changing pattern of land owned and land operated in Andhra region of Andhra Pradesh since two decades', *Ind. Jour. of Ag. Econ.* 31(3):48.
- Srilekha, B. 1976. 'pattern of assets holding in rural India: A study of top asset holders', *Economic and Political Weekly.* 90(1 & 2):60-61
- Thimmaiah, Aziz A. 1983. 'The Political economics of land reforms in Karnataka- A South Indian State', *Asian Survey.* 23(7):810-820.
- Tilekar, S.N., A.N. Ratnaparkhe and B.J. Hinge. 1987. 'A study of changes in size of land holding and assets of farm families in Western Maharashtra- Resurvey', *Ind. Jour. of Ag. Econ.* 42(3):348-349.

- Venkat Rao, N. and B.S. N. Reddy. 1987. 'Structural changes in land relations and technological implications- An analysis of North-East India', Ind. Jour. of Ag. Econ. 42(3):331.
- Vishwa Mittar. 1981. 'Structure of land holdings and regional configuration of rural Punjab- A land distribution perspective', Ind. Jour. of Ag. Econ. 36(4):186-187.
- Vishwa Mittar and J.R. Gupta. 1976. 'Changes in distribution of land ownership and use-1953 and 1973: A case study', Ind. Jour. of Ag. Econ. 31(3):55.
- Vyas, V.S. 1976. 'Structural changes in agriculture and the small farm sector', Economic and Political Weekly, 90(1&2):25.
- Vyas, V.S. 1979. 'Some aspects of structural changes in Indian agriculture', Ind. Jour. of Ag. Econ. 34(1):1.

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V I T A

D.S. VYAVAHARE

A candidate for the degree

of

DOCTOR OF PHILOSOPHY (AGRICULTURE)

in

AGRICULTURAL ECONOMICS

1992

- Title of Thesis** : Changes in the structure of land holdings in Maharashtra.
- Major field** : Agricultural Economics
- Biographical Information** :
- Personal** : Born at Karkamb, Taluka Pandharpur, District Solapur on 1st June, 1951. Son of Shri. Shrirang Bajirao Vyavahare. Married with Vimal on March 12, 1978 and have two children, Deepali and Deepak.
- Educational** : Attended secondary School in Rambhau Joshi Highschool, Karkamb, Dist. Solapur. Received Bachelor of Science (Agri.) Degree from Mahatma Phule Agricultural University, Rahuri in 1972 with First Class. Received the Master of Science (Agri.) Degree in Agricultural Economics in First Class with distinction from Mahatma Phule Agricultural University, Rahuri in 1974. Submitted dissertation for the Degree of Doctor of Philosophy (Agriculture) in Agricultural Economics at Mahatma Phule Agricultural University, Rahuri in May 1992.

The subject of training received while in service are:

- | | |
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| 1. Wheat and Barley production Technology: | January, 1980 |
| 2. Middle Executive Training: | December, 1980 |
| 3. The workshop on slide story development: | October, 1982 |
| 4. Western Regional Agricultural information communication workshop: | March, 1983 |
| 5. Video Production: | May, 1984 |
| 6. Use of Video in farmers training: | The study tour to Peru in February, 1985 |
| 7. All India Agricultural information communication workshop, Madurai: | January, 1986 |
| 8. Orientation course in irrigation water management: | January, 1988 |
| 9. Extension Management development programme: | November, 1991 |

Professional Experience:

- Selected in Maharashtra Civil Services by Maharashtra Public Service Commission and worked as Probationary District Inspector of land records, Pune 1974-75
- Agricultural Field Officer, Union Bank of India 1975-77
- Selected in Maharashtra Agricultural Services by M.P.S.C. and worked as Agricultural Development Officer, Zilla Parishad, Nasik. 1977-82
- Deputy Director of Horticulture, Pune-5 1982-83
- Agricultural Information Officer, Maharashtra State, Pune-1 1983-87
- Superintending Agricultural Officer, Pune Division, Pune-5 1987-90
- Chief Soil Survey Officer, Maharashtra State, Pune-5 1990

T.2803

