

**LAND REFORMS AND PATTERN OF LAND
CONCENTRATION IN BIHAR**

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Submitted by

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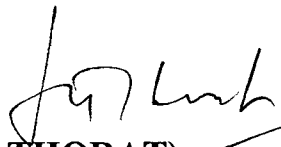
I, Ranjan Kumar Choudhary, certify that the dissertation entitled "LAND REFORMS AND PATTERN OF LAND CONCENTRATION IN BIHAR" for the degree of MASTER OF PHILOSOPHY is my bonafide work and may be placed before the examiners for evaluation.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Land being one of the primary resource of livelihood, its ownership and control forms an important asset in an agricultural society like India. Overall development in India, depends to a greater extent on the nature of the ownership of land. A proper utilization of land implies a sound system of land tenure which enables the access to land. In this way reform in the land system is very essential.

Land reforms can be conceived in different perspectives. The early literature on the subject defined land reform as an integrated programme of measures designed to eliminate obstacles to economic and social development arising out of defect in the agrarian structure.¹ This broad definition was short lived and there was a slight shift towards narrower concept of land reforms which maintained that land reform refers to changes in land tenure system and the accompanying changes in other institutions that are necessary to achieve the objectives for which changes in the land tenure are sought.² Doreen Warriner has defined land reform in terms of the redistribution of property of right in land for the benefit of small farmers and agricultural labourers.³

In this way land reform means a redistribution of land in favour of the landless and small cultivators by bringing about tenancy reforms.

¹ United Nations, Progress in Land Reform, Third Report, New York, 1962, p. VI.

² United Nations, Progress in Land Reform, Fourth Report, New York, 1966, pp. 2-3.

³ Warriner Doreen, Land Reform in Principles and Practice, Clarendon Press, Oxford, 1969, p.XIV.

In simple terms, land reform means “land to the tiller”, i.e. conferment of occupancy right to those who are actual tillers of the soil.

Land reform have been on the national agenda of rural reconstruction for a long time, particularly since independence. The major objectives of land reform consists of reordering agrarian relations to achieve an egalitarian social structure, enlarging the land base of the rural poor, increasing agricultural productivity and production and infusing equality in land institutions.

In the post-independence period, the origin of land reforms can be traced to the Congress Agrarian Reform Committee constituted under the Chairmanship of J.C. Kumarappa (1949). The salient facets of land reform policy adopted were:⁴

- (a) Abolition of intermediaries and bringing tenants in direct contact with the government.
- (b) Tenancy reforms to provide security to actual cultivators of land against eviction.
- (c) Redistribution of land by imposition of ceiling on agricultural holdings.
- (d) Consolidation of holdings.
- (e) Updating of land records.

1.1a Rational behind land reforms

Land reform policy had economic, social and political dimensions. The economic dimension is related to the fact that in the rural area ownership of land was

⁴ Lahari, T.B., “Problem of Sustaining Gains Derived from Land Reform”. Yojana Vol. 37, No. 8, May 15, 1993, p. 8.

held by small minority of landlords, who did not actually cultivate, but employed the actual tillers of soil who were tenants or agricultural labourers. There was exploitation of these labourers, but even then they were compelled to work on their land because of the absence of alternative means of employment for the growing rural population. As such, tenants had no attachment with land, besides having no surplus, they did not effect any improvement on it. On the other hand landlords having pecuniary interests in land also did not take interest in investing on its improvement. Both these factors together resulted in the decline in the productivity of land. In order to remove poverty, it was essential to increase the land productivity was to be increased which ultimately needed land reforms.

As far as the social aspect is concerned, traditionally the so called upper caste as well as other dominant castes of the society owned large area of land. Generally the members of the lower castes had either very little land or no land at all. Such people were reduced to the position of the landless agricultural labourers, who worked as tenants on the land of the landed peasantry who generally belonged to the upper castes. If one looks at the fact, it is clear that the lowest in the caste hierarchy, the scheduled castes constituted the majority of the agricultural labourers. It was not that land was distributed on the basis of caste, but because of the old age system land had come to be occupied by the people of upper castes and the lower caste reduced to the position of landless labourers. The clear cut occupational dichotomy created social inequality and economic compulsions perpetuated such social inequality. It had led to several rural violence and unrest in social life on the rural people. The land reforms thus, were envisaged to be the major step to minimise such social inequalities and resultant conflicts.

As regards to the political dimensions, it may be noted that historically owners of land were supporters of government in power. Such support of Zamindars to the government was more evident during the British period, when they used to lend open support to the Britishers. Even after the independence a close alliance was established between the landlords and the government. In order to perpetuate their economic stronghold hold over the tenants, they depended on the protection and patronage of the government. Again in election time landlords and politicians used the issues related to land reforms as a device to convert votes from the rural masses though there was no sincere effort to translate these promises into reality.

1.2 STATEMENT OF THE PROBLEM

The mainstay of the economy of Bihar is agriculture. About 80 percent of the states population is rural. Its agriculture performance is not satisfactory although it has very fertile soil. The major problems which the state of Bihar faces are:

- (1) The importance of land for cultivation in the process of income and employment in the state economy given the over loading of population on its agricultural sector.
- (2) The existence of an oligarchic structure of ownership holdings among the rural households in the State inspite of land reforms. Landlessness on mass scale also poses problems.
- (3) A vast multitude of lower castes house holds are landless or have some negligible area of land.
- (4) Socio-economic conflicts due to uneven distribution of land in Bihar.

1.3 REVIEW OF LITERATURE

As land is a valuable resource since ancient time so the historical past reflects the base structure of land distribution in the country. It also throws light on land related laws and its changing nature through time and space. So for the clear understanding all the literature have been divided into three broad topics:

- (I) Historical perspectives of land reforms in India and its relevance.
- (II) Agrarian structure and land distribution in Bihar.
- (III) Impact of land reforms on agrarian structure in Indian states.

(I) Historical perspectives of land reforms in India and its relevance

After independence many steps have been taken for land reforms. Jha, S.C.⁵ (1971) in his work has examined a few major issues of land reform. He has separately treated the issues related to land redistribution, farm size and productivity, cooperative farming, tenancy reform, and land ownership versus tenancy.

Ledejinsky Wolfe⁶ (1972), has discussed that any meaningful land reform without a land ceiling programme is a misnomer, while its presence is one of the main causes of the few reforms which have succeeded. And yet in the light of India's past experiences and current political realities major emphasis on ceilings now is not warranted. Because numerous problems obstructing its implementation and at a time when the role of big owners in the new technology is deemed paramount in all manner of circles.

⁵ Jha, S.C., A Critical Analysis of Indian land reform studies, Bombay, Asian Studies Press, 1971, p.119.

⁶ Ledejinsky Wolf, E.P.W. Annual Number, February 1972, pp.401-408.

Wadhwa, D.C.⁷ (1973) has given a complete state wise bibliography of agrarian legislation in India covering 68 subjects since the introduction of formal code in 1793. Review of implementation of land reform measures and the issues related to it is one such topic which has crowded out the other concerned literature in the whole exercise. Koshy V.C.⁸ (1974) has worked in the same direction for the time period 1947-72, and assessed the impact of various reform measures on the agrarian structure and society in the country. This work is a landmark in this topic.

Murdia Ratna⁹ (1975) has taken a different dimension of land reform as he has examined the situation of schedule castes and scheduled tribes in respect of land allotment and alienation as well as the various measures adopted by state governments to improve their condition regarding the case of ownership.

Ghosh¹⁰ (1978) has discussed how land reforms become relevant for agricultural development particularly referring to maximisation of agricultural production.

Joshi P.C.¹¹ (1978) in his work has examined that land reform is both a cause as well as effect of a thorough going change in power balance. The restructure of administrative system to involve rural people in decision-making can open up new chapter in land reforms implementation.

⁷ Wadhwa D.C. Agrarian legislation in India (1793-1966) vol 1. Poona, Gokhale Institute of Politics and Economics, 1973, p. 868.

⁸ Koshy, V.C. Land reforms in India under the plans, S.S. Vol. 2, no.12, July 1974, pp.43-61.

⁹ Murdia, Ratna. Land allotment and land alienation: policies and programmes for scheduled castes and scheduled tribes, E.P.W., Vol.10, no.32, August 9, 1975, pp.1204-1214.

¹⁰ Ghosh, Subodh Kumar. Land and agricultural development, in Mnjula Bose (ed) Land reforms in eastern India. Calcutta, Jadampur University, 1978, pp.194-197.

¹¹ Joshi P.C. Land reforms implementation and role of administrator, E.P.W., Vol.13, no.39, September 30, 1978, pp.A78-A83.

Vyas V.S.¹² (1979) has given a very good review of India's land reform programme and tries to narrate the theory that archaic relationships in land are symptoms of economic backwardness and will be swept aside in the process of economic growth.

Swamy, D.S. (1980)¹³ in his work tried to link credit and land system in rural India and their effect on agrarian economy and society.

Sinha, Indradeep¹⁴ (1982) has tried to give an analysis of major changes occurred in the agrarian structure during the post independence period to May 1979.

Haque, T. and Sirohi A.S.¹⁵ (1986) have given a critical account of various official and unofficial measures undertaken in the past in the direction of agrarian reforms and institutional changes in India. It also throws light on interregional perspectives of institutional changes.

Mohandas, Palta¹⁶ (1995), has given a critical analysis of land reform measures taken in India. The aspects are tenancy reforms, ceiling reforms, Zamindari abolition act and related issues. His basic argument is that more thrust is needed for the effective implementation of the policy for the benefit of the poor.

¹² Vyas, V.S. Land reform legislation, in Romesh Thapar (ed) Indian economic thinking: a seminar compilation, New Delhi, Allied publishers, 1979, pp.80-87.

¹³ Swamy, D.S. (1980), Agricultural tenancy in the 1970s. Indian Journal of agricultural economics 43(4), pp.556-568.

¹⁴ Sinha Indradeep: Some question concerning Marxiam and peasantry. New Delhi, Communist Party publications, 1982, p. 72.

¹⁵ Haque, T. and Sirohi, A.S.: Agrarian reforms and institutional changes in India. New Delhi, Concept Publishing Company, 1986, p. 268.

¹⁶ Mohandas, Polta: Land reforms in India. Kurukshetra edt. Sudheer, G. Vol. XLIV, No.1, October 1995, pp. 37-41.

Bandyopadhaya Rekha¹⁷ (1996), has given a very good presentation of global experiences of land reforms with general and special comments. She has taken mainly China, South Asian countries, Latin American and African countries and concluding it with respect of degree of removal of inequalities and productivity improvement by a comparison of pre reform and post reform stages.

Mishra, Bidyanath¹⁸ (1999) has written about the land reform with development perspective. Basic thrust has been given to understand the security of tenure and ownership rights, and critically evaluated other phenomena of land reforms.

(II) Agrarian Structure and Land distribution in Bihar

Sinha, Indradeep¹⁹ (1970) has observed that the land reform measures could not achieve their objectives due to loopholes in provisions of legislation. The big landlords are able to succeed in grabbing the all type of lands like governments wasteland forest land, Bhoodan lands, surplus land tribal lands and etc. Land can be made available for landless and marginal farmers if ceiling limits lowered.

Jannuzi, F.T.,²⁰ (1974) has studies the land tenure system of Bihar in different time period and emphasised over inequality in land distribution which is the main problem of Bihar and its Backwardness. His study shows that area under small holdings is rather low, than the large holdings.

¹⁷ Bandyopadhaya Rekha, Global Review of land Reform a critical perspective. E.P.W., March 16, 1996.

¹⁸ Mishra Bidyanath Land Reform and Agricultural Development. IASSI Quarterly, Vol.17, No.4, 1999, pp.108-124.

¹⁹ Singha, Indradeep, Land Liberation Movement in Bihar, Mainstream, October 10, 1970.

²⁰ Januzi, F.T., Agrarian crisis in India: The Case of Bihar, New Delhi: Orient Longman, 1974.

Prasad, P.H.²¹ (1975) has tried to find out the changes in the economy of Bihar when the implementation of land reform has not occurred in a satisfactory way and mass rural people are not able to make a good hold on land.

Das, A.N.²² (1983) has tried his best to catch all ins and out of land reforms in Bihar. His work went on to the depth of rural areas and village. It presents a day to day life of rural village and the experiences of land reforms which he has observed.

Das, Arvind, N.²³ (1975) throws light on the occurrence of new naxalitie movement mainly on the central part of Bihar. He goes on the depth of this movement and tries to sum up it, with the economic inequality on which land distribution and its relation contributes major part of it.

Prasad, P.H.,²⁴ (1987) has argued about the different dimensions of Agrarian violence occurred mainly in Central Bihar. Concentration of holding in few hands and, working hands with no land is the root cause of agrarian violence in Bihar.

Thakur, D.²⁵ (1989) is mainly centred around the political dimensions of land reforms. He has done intensive work regarding land reforms. All the major provisions of Bihar land reforms have been collected in his work.

Choudhary Prasannak,²⁶ (1993) idea regarding land reforms is slightly different as he thinks about land reform not only in political and social way but also

²¹ Prasad, P.H., "Agrarian Unrest and Economic Change in Rural Bihar", E.P.W., Vol.10, No.24, June 14, 1975.

²² Das, A.N., Agrarian Unrest and Socio-economic change in Bihar 1900-1980, New Delhi: Manohar 1983.

²³ Das.A.N., "Revolutionary movement in Bihar", E.P.W., Vol.22, No.22, May 30, 1987.

²⁴ Prasad P.H., "Agrarian Violence in Bihar", E.P.W. Vol.22, No.22, May 30, 1987.

²⁵ Thakur, D. "Politics of Land Reforms in India", Delhi: Commonwealth Publishers, 1989, p.212.

²⁶ Choudhary, Prasannak, Land Reforms in Bihar: Need for a fresh Appraisal (eds), Yugandhar B.N., and Iyer K. Gopal. Land reforms in India: Bihar Institutional Constraints, New Delhi: Sage Publication 1993, pp. 361-362.

includes economic dimension. He argues to study land reform in relation to the development of productive forces, both agricultural and industrial.

Prasad, Shankar,²⁷ (1993), has discussed about the policy and its implication on land reform issues in Bihar. He has gone through all the five year plans and sums up the progress of land reforms in it. He has extensively and very clearly presented the various land reforms laws taken place in Bihar.

(III) Impact of land reforms on agrarian structure in Indian States

Khusro A.M.²⁸ (1962) has pointed out that the land reforms are generally understood to have an effect on structural change. He argued that changes in the land system may be attributed to two components: first in institutional changes, which includes items like abolition of intermediaries, tenancy, reforms and others, and second is structural changes which includes changes in size of land holdings and measures such as land ceiling, cooperative farming, consolidation of holdings and etc.

George, P.T.²⁹ (1968) has discussed about the results of abolition of intermediaries of land holdings in some states which were particular according to their socio-economic dimensions.

Dantwala, and Shah³⁰ (1971) has critically evaluated the impact of land reform legislation on agrarian structure on western states with particular reference to Gujarat

²⁷ Prasad, Shankar, Implementation of Land Reforms Legislation in Bihar. (eds), Yugandhar B.N., and Iyer K. Gopal. Land reforms in India: Bihar Institutional Constraints, New Delhi: Sage Publication 1993, pp.361-362.

²⁸ Khusro, A.M. Land reforms legislation and implementations, summary of group discussions. Indian Journal of Agricultural Economics, 17(1), 1962,

²⁹ George P.T., A comparative review of five land reforms studies sponsored by Research programme committee, India, Indian Journal of Agricultural Economics, 23(3), 1968, pp.30-45.

³⁰ Dantwala, M.L. and Shah C.H., Pre-reform and post-reform agrarian structure, Indian Journal of agricultural economics 26(3): 1976, pp.183-200.

and Maharashtra. The change was mainly felt in nature, extent and character of tenancy.

Rao V.M.³¹ (1972) has analysed about the purchase and sale of land during the period 1956-65 in Ryotwari areas. This study feature is related with different types of cultivators and their transaction in land market.

Joshi P.C.,³² (1975) has broadly studies the agrarian social structure and their impact on economic changes. His study has gone through across the regions which throws light on reform, on each and every part of India.

Sirohi A.S. and Others³³ (1976) have presented interstate disparities in the structural distribution of land holdings in rural India. According to them the inequalities in the distribution of owned area declined significantly since 1960-61 in several states.

Deshpande, S.H.³⁴ (1982) founds that there are many factors which go into the shaping of agrarian structure. Land transfers may originate from various sources such as inheritance, gift, mutual exchange, partition and through land reform and mortgages and others.

³¹ Rao, V.M., Land transfer in rural communities, some findings in 120 Ryotwari region, E.P.W., Vol (40), 1972, pp.A133-A140.

³² Joshi P.C., Land reforms in India – Trends and Perspective. Allied Publishers Pvt. Ltd., Bombay, 1975.

³³ Sirohi, A.S. and Others, Structural distribution of land ownership and use in India, Indian Journal of Agricultural Economics, Vol 31, No.3, 1976, pp.14-23.

³⁴ Deshpande, S.H., Changes in the agrarian structure and agrarian relations in the states of India since independence – Rapporteur report XXXVII (1) 1982, pp.29-33.

Swamy D.S.³⁵ (1988) in his empirical study has reported that agricultural tenancy has significantly declined in 1982 as compared to 1971. It is due to the technical enhancement in the agricultural sector.

Sharma H.R.³⁶ (1994) has analysed the distribution trend of land holdings in rural India, from 1953 to 1981-82. This tremendous works presents a vivid picture of all doubts regarding land holdings inequality in India.

Das, Sukumar³⁷ (2000) has observed various dimensions of land reforms in different parts of India. He discusses the point that 68 percent of India's population is rural and dependent upon agriculture and allied activities and they are not getting an economic holding of arable land for a sustainable economic growth. In this way the country cannot look forward to growth with social justice.

Srivastava, Ravi S.,³⁸ (2000) has critically mentioned about the emerging changes in contractual relations in agricultural land and labour markets in India on the basis of N.S.S. data. According to him tenancy changes have contributed to increased concentration of operational holdings and smaller holders tenancy is slowly being transformed but has remained surprisingly resilient over the years.

³⁵ Swamy D.S. Agricultural Tenancy in the 1970s. *Indian Journal of Agricultural Economics*. 43(4): 1988, pp.555-568.

³⁶ Sharma H.R. Distribution of Land holdings in Rural India, 1953-54 to 1981-81, implications for land reforms. *E.P.W.*, September 24, 1994, pp. A-117-A-128.

³⁷ Das, Sukumar, A Critical Evaluation of Land Reforms in India (1950-1995), (eds). Sinha B. Kand Pushpendra, Land Reforms in India. An Unfinished Agenda, Vol-V, New Delhi: Sage Publication, 2000.

³⁸ Srivastava, Ravi S., Changes in Contractual Relations in Land and Labour in India, *Indian Journal of Agricultural Economics*, Vol.55, No.3, July-Sept. 2000, pp.253-282.

1.4 OBJECTIVES

The present study proposes to review the various land reform measures in Bihar and examine the pattern of land distribution and changes in different aspects of agrarian structure in the state.

It also attempts to examine the Indian scenario of distribution of land holding according to N.S.S. data. The main aim of the study is:

- (1) To present a review of land reforms in Bihar in its historical perspective.
- (2) To analyse the distribution of land holdings by size groups in terms of number as well as area owned, and changes in it over the selected time periods across the state in India.
- (3) To examine the district wise pattern of distribution of land holdings in terms of number as well as area owned over the selected time periods and analyse the changes occurred over the time period in Bihar.
- (4) To examine the inter regional inequalities in the state of Bihar and analyse the pattern of concentration of land holdings there in.

1.5 DATA BASE AND LIMITATIONS OF DATA

The data used in this dissertation have been collected from the following sources:

- (1) Agricultural census of Bihar 1970-71 and 1980-81.
- (2) National Sample Survey Reports.

26th round July – Sep. 1971-72,

37th round Jan. – Dec. 1981-82,

48th round Jan. – Dec. 1991-92,

- (3) Agricultural Census, 1970-71 and 1980-81.
- (4) Various issues of annual Reports, Ministry of Rural Development.
- (5) Statistical abstract of Bihar, 1981.
- (6) Various issues of annual Reports of Bihar Government.

To look into the changes in the distribution of land holdings, the National Sample Survey reports and the Agricultural Census reports on land holdings are the two major sources of data. Agricultural census started only after 1970-71 and that the agricultural census data are largely carried forward questionable and less reliable land revenue records at the grassroots level for most of the states. On the other hand N.S.S. data are the only source of information which extend from as early as 1953-54 (8th round). The data prepared and published by N.S.S. are based on more scientific methodology and are the most satisfying with lots of information.

To analyse the pattern of land holding in the state of Bihar (district wise) data from Agricultural Census of Bihar, 1970-71 and 1980-81, have been used. The time period for 1991 has not been included because this year's data has not yet been published.

To analyse the progress of various components of land reforms annual reports of Ministry of Rural Development for various years have been used.

1.6 METHODOLOGY

The statistical techniques used in this dissertation are as follows:

- (1) Percentage for land holdings and area across different size groups have been calculated from the total holdings and the area of the state.
- (2) Percentage variation in holdings and area have been calculated by using following formula:

$$\text{Change percentage} = \frac{P_1 - P_0}{P_0} * 100.$$

Where P_1 – Variable in the final year.

P_0 – Variable in the initial year.

- (3) Gini's coefficient technique has been used for measuring the concentration pattern of land holdings in India and Bihar.

$$\text{Gini coefficient} = \Sigma [x_i \cdot y_{i+1}] - (x_{i+1} \cdot y_i)$$

Where x_i = Cumulative percentage of number of holdings in the i^{th} class.

y_i = Cumulative percentages of area in the i^{th} class.

This technique has been used for overall cross sectional as well as temporal comparison of inequalities.

- (4) Average size of holding has been calculated by dividing the area of operational holding with number of operational holdings.
- (5) Choropleth technique has been used to identify the spatial pattern of concentration of land holdings. Further this identifies the structure of land

holdings in terms of numbers as well as area owned in the state at district level during the selected period.

Percentile method has been used for preparing the classes. And all the three size groups of land holding has been divided into three categories, i.e. high, medium and low.

- (6) Lorenz Curve has also been used to observe the distribution pattern. Lorenz curve is a measure of the deviation of actual distribution from the line of equal distribution. Since the aim of the study is to evaluate the inequality between distribution of area of operational holdings in relation to the number of operational holding from the equal distribution.

To, calculate this, cumulative percentage of area and number of operational holdings have been taken. A curve has been drawn by putting the cumulative percentage of number of operational holdings on the 'X' axis and cumulative percentage of area on 'Y' axis. This curve is called Lorenz curve. A line of equal distribution is thus drawn. Variation between real distribution and equal distribution show disparities between them.

- (7) Inter Class Concentration Ratio (I.C.C.R.) has also been calculated. Since the Gini's co-efficient does not indicate the inter temporal variation of area among the various classes so to measure such shift and inequality in class wise and temporally the I.C.C.R. is very useful.

$$\text{I.C.C.R.} = \frac{Q_i/Q}{P_i/P} \times 100$$

Where Q_i and P_i are the area and number of operational holdings in the i^{th} class and Q and P are the total number of holdings in all the class.

According to the I.C.C.R. a figure less than 100 suggests that the land owned by the group is less than its share under the condition of equal distribution of land. A figure greater than 100 shows that land-owned by the group is greater than its share under condition of equal distribution.

- (8) Co-efficient of Variation (C.V.), has been calculated for observing the inequalities trend of size groups of holdings among the districts of Bihar. In any distribution it is the ratio of the Standard Deviation (σ) and mean (\bar{X}), expressed as percentage, and has no unit.

$$\text{i.e., C.V.} = \frac{\sigma}{\bar{X}} \cdot 100$$

1.7 GEOGRAPHICAL PERSONALITY OF THE STUDY AREA

Location and Space Relations:

The state of Bihar lies between Latitude 21.58° and 27.31° N and Longitudes 93.20° and 88.32° E. To the North it shares an International frontier of approximately 428 kms with the independent kingdom of Nepal. In the East its boundary marches with that of West Bengal State for a distance of 842 kms, to the south it is bounded by Orissa state for a distance of 421 kms, and to the south west and west lie the states of Madhya Pradesh and Uttar Pradesh with whom it shares a border of 260 kms and 540 kms respectively. The state is entirely land locked and nearest point from the sea is 90 km i.e. Bay of Bengal. The administrative map of Bihar indicates all above-mentioned things (Map no. 1.1).



Map not to Scale

Map No. 1.1

Physical Features:

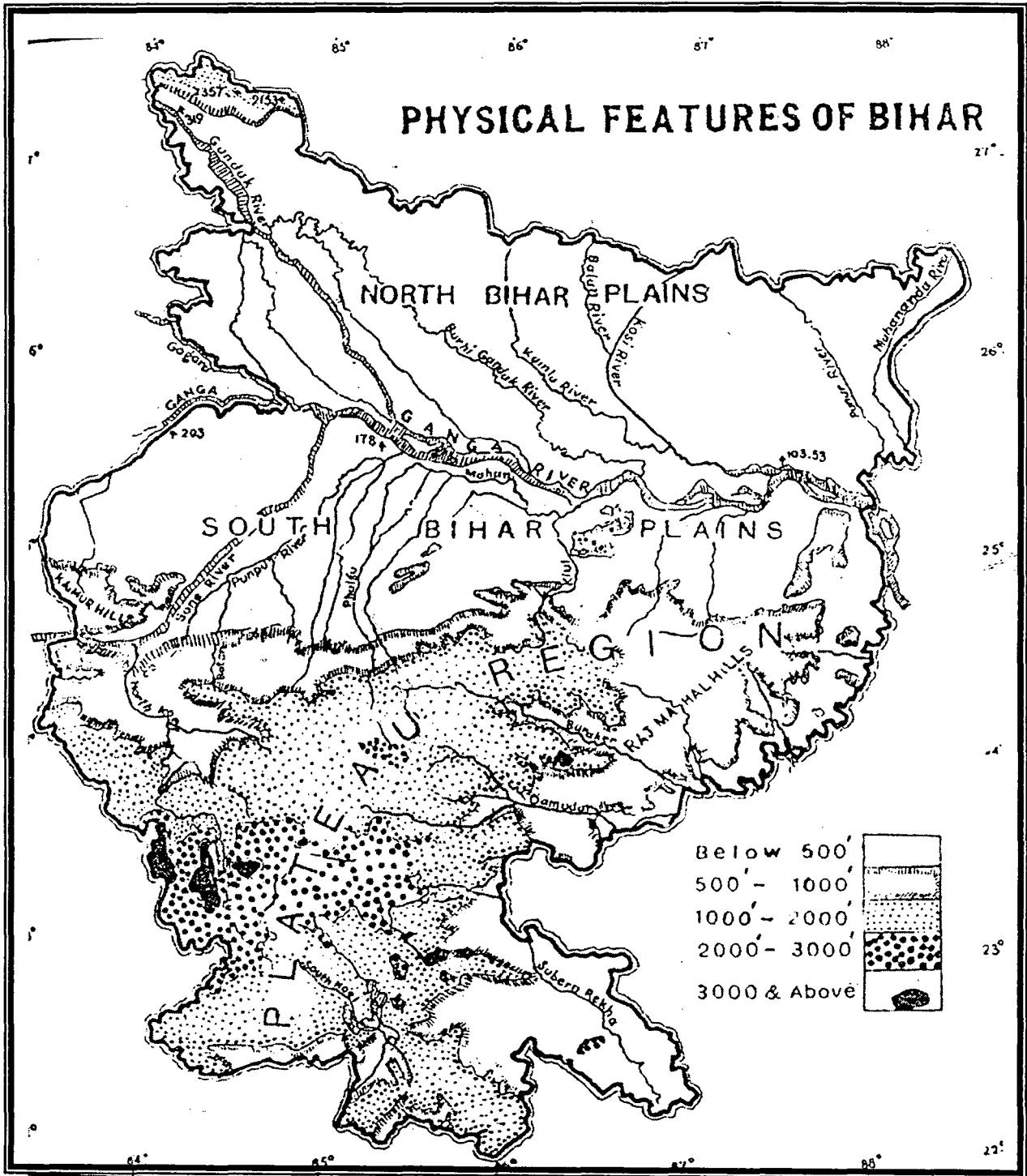
Almost half the total area of the state consists of hills and plateaus with an average altitude which varies from 305 to 610 metres above sea level, alternating with rivers valleys and basins separating the hills, while the remaining half is a flat alluvial plain with an average altitude varying between 31 to 61 meters from sea level, with the exception of a small range of hills in the extreme north-west. Thus, the state consists of two distinct topographical units in the plains region and the plateau region.

The plains region is flat and alluvial with gentle slope towards the East. The river Ganga divides the plains region into two equal parts, i.e. North Bihar Plain and the South-Bihar plain.

The North Bihar Plain comprises the area between Nepal border in the North and the River Ganga in the South and has an area of 53.8 thousand sq. kms.

The South Bihar Plain comprises the area between the river Ganga and the southern highlands.

The Plateau Region of Bihar is the second of the great natural divisions in the state. In contrast of the Bihar plains, the Plateau Region is quite uneven and consists of a series of Plateaus each occurring of a height different from other and separated by a series of hills and valley. Most of the plateau region has an elevation exceeding 305 metres with a greater part rising about 610 meters above sea level (Map no.1.2).



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Map : 1.2

Soils:

According to the reconnaissance soil survey carried out in Bihar between 1954 to 1966, soil of Bihar has been divided into 23 broad soil groups based on common characteristics. In Bihar all of these types can be grouped in seven broad types (Map no.1.3).

I. The Gangetic Alluvium Soil:

These soils are recent in origin and developed due to deposition of Material brought by rivers. It covers the vast plains of North and South Bihar. It is thin near the fringe of the plateau but its thickness in north is more between 1800 to 2400 meters. This region are subjected to alluvial and deluvial action by the streams. The entire tract has been denuded of the natural vegetation cover by cultivation. It is poor in humus and nitrogen content and quick decomposition. The content of lime varies greatly from a high percentage in Saran and Muzaffarpur to a negligible in the districts of the east. The subsoil are not uniform in texture but consist of well defined layers varying from pure sand to heavy clay. Alluvium are of two types, the newer alluvium khaddar and the older alluvium bangar. The newer alluvium is different from older alluvium in texture, chemical composition, drainage, fertility. The older alluvium is found away from the main rivers. It is a heavier soil with a greater clay proportion than the newer alluvium. The proportion of clay makes the soil sticky and drainage is often poor.

II. Swamp soils:



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These soils are found in the narrow belt of the Tarai in the north of Champaran district in the sub mountain region characterised by presence of moisture due to large

amount of rainfall and also by continuous seepage of water from the sloping people zone on its north. These soils are covered with reedy grasses. The colour of the soil vary between dark to grey. These soils are good for rice crop. The soil is mostly clay due to high moisture content and water logged conditions.

III. Red Sandy Soil of the Kaimur Plateau:

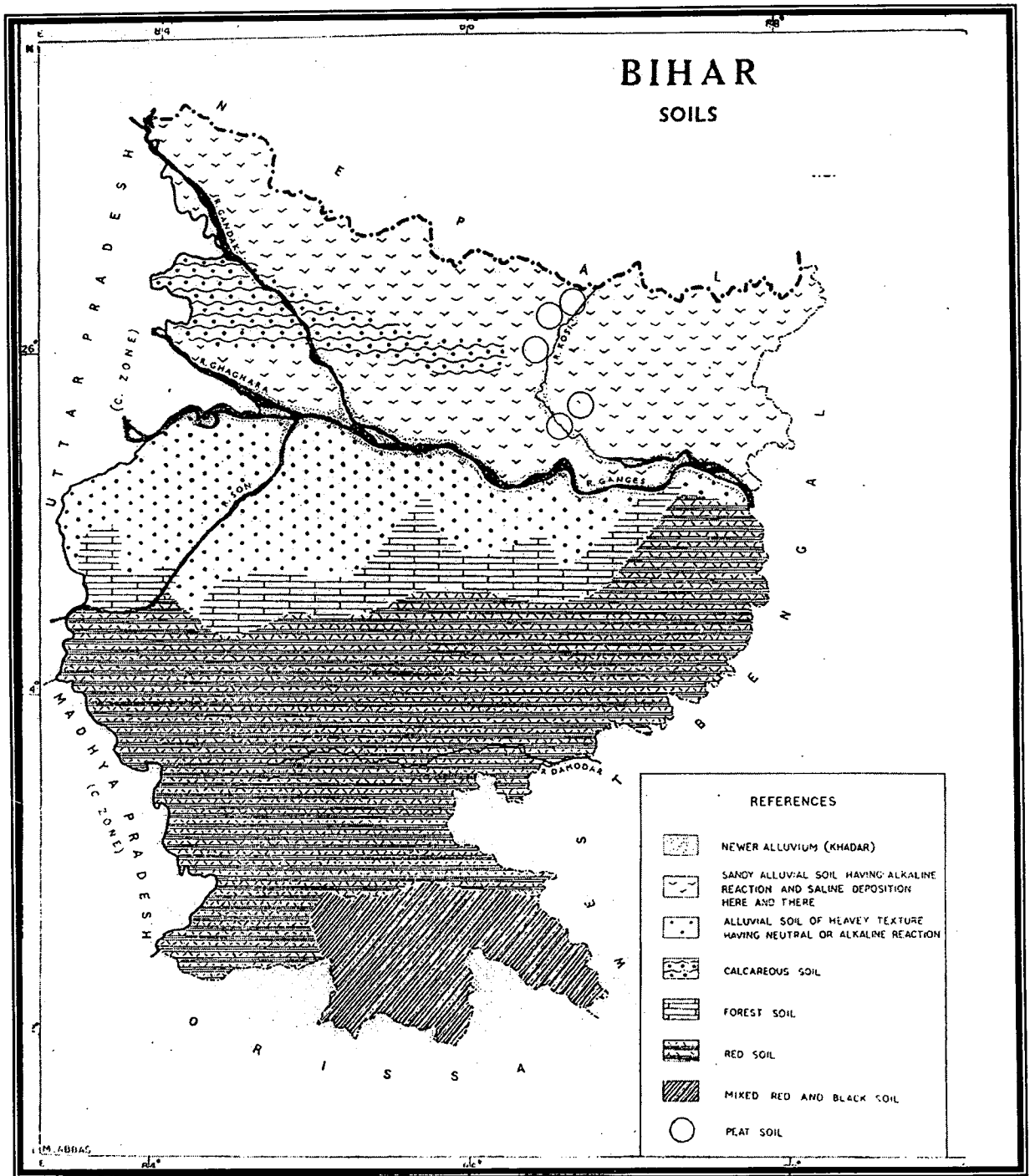
This soil is found over the Kaimur Plateau in South of Bhojpur and Rohtas. Since the plateau is composed of the upper Kaimur sand stones, the residual soils developed on it. The colour of soil is red due to presence of iron. It is poor in fertility.

IV. Calcareous Soil:

These soils are found in older alluvium of Saran, the Bangar Doab between the little Gandak and the Baghmata in Muzaffarpur and Sitamarhi. It is also occupies the tract of newer alluvium south of the little Gandak in Champaran and a small tract in western Dharbhanga. These calcareous soil is rich in carbonate of lime. The beds of Kankar of nodular limestone are a common features of sub-soil. The whole tract of calcareous soil lies between the river uplands on the south and sub-mountain elevated zone of north.

V. Red and Yellow Soils of the Chotanagpur Plateau:

This soil is found in large area of Santhalpargana, South Bhagalpur, Hazaribagh, Dhanbad, Ranchi and Singhbhum districts. This is light in texture and strongly to moderately acidic. The entire area is composed of crystalline and metamorphic rocks mostly granite and gneiss. The colour of soil is deep red to black. Generally these soils have inadequate content of nitrogen, phosphoric acid and humus but Potash and lime are in abundant.



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Map : 1.3

VI. Laterite Soil:

In Bihar there are zones of laterite soil first in the Rajmahal area of Santhal Pargana second in west of Ranchi and South Palami. The red colour of the soil is due to high percentage of iron oxides. Its fertility is low.

VII. Black Clayey Soil:

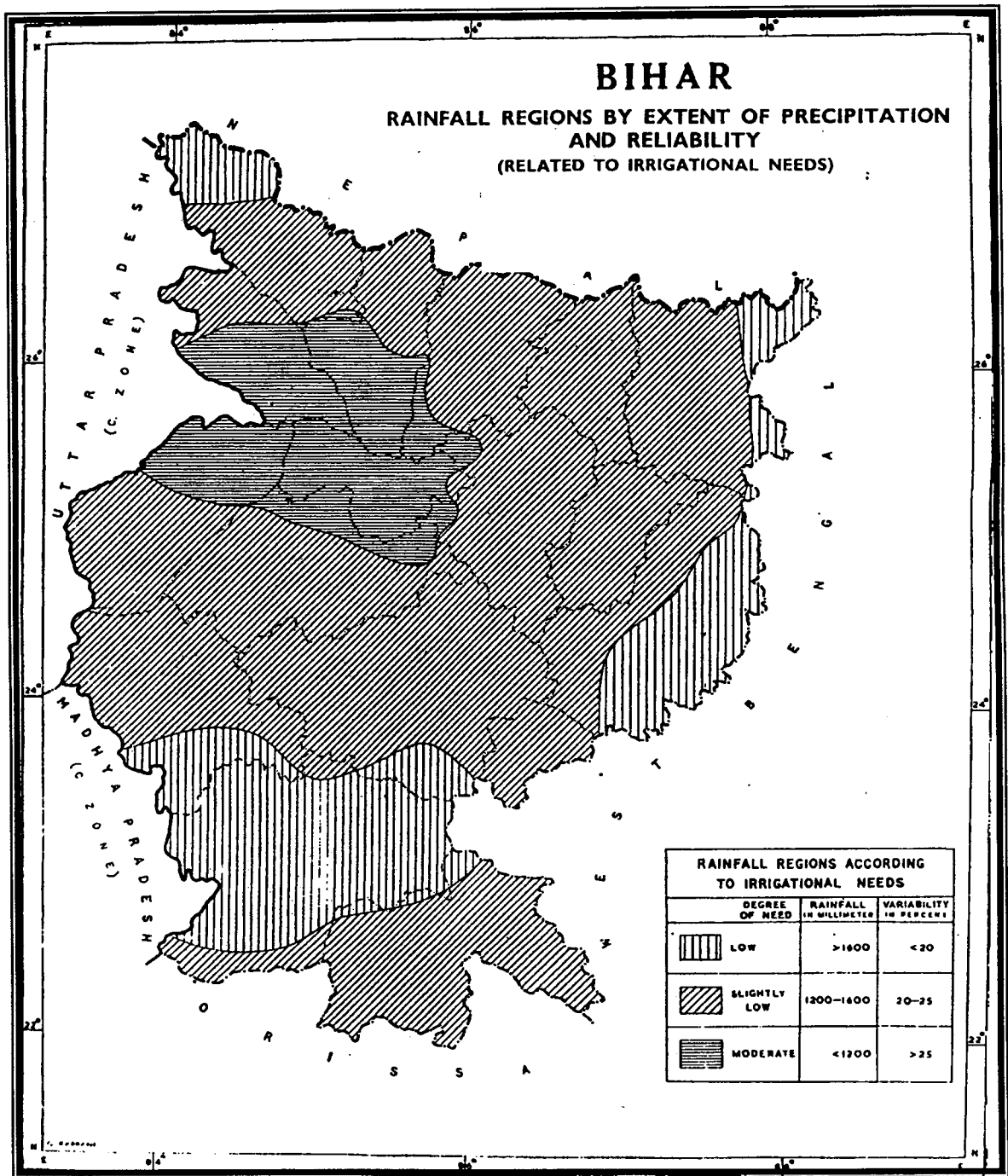
This is a residual soil and has developed on basic rocks of Rajmahal hills and Santhal Pargana. It is a black clay which is harder when dry. It is sticky when wet and could retain moisture for a long time. Clay content is high due to this it could expand and contract in the presence and absent of moisture. This soil is fertile.

Climate:

The climate in Bihar is significantly influenced by its geographical location and physical features. As it lies between 21.58° and 27.31°N, so it enjoys generally a tropical and sub-tropical climate. But the Himalayan Mountains to the North have an important bearing on the distribution of monsoonal rainfall in the North Bihar and the direction of winds affecting the climate of the state. The plateau region of the south enjoying an elevation of 305 to 610 metre above the sea level not only gets more rainfall, but is also cooler than its latitudinal position (Map no. 1.4).

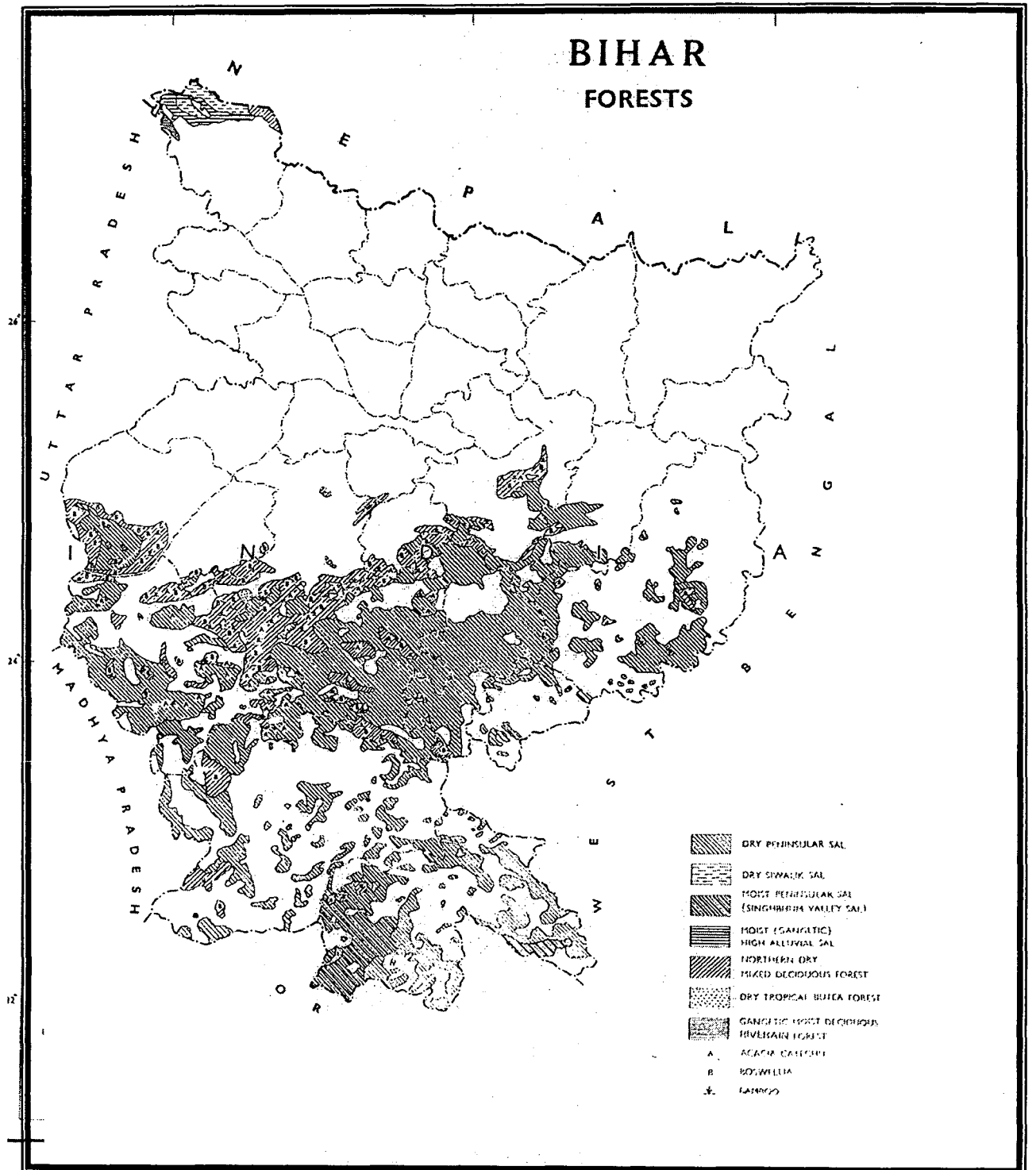
Vegetation:

Forest in Bihar cover 16.8 percent of the area of the state. The forests in Bihar are broadly of two types – (1) Tropical Moist Deciduous, covering the Plateau region and the sub-mountainous vegetation in North Bihar and (2) Tropical Dry Deciduous



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Map : 1.4



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Map : 1.5

found over the remaining portion of the State, mainly the Central part of the Gangetic Plain (Map no. 1.5).

I. Tropical Moist Deciduous Forest:

The Himalayan foot hills in the north-west of the state and plateau region of South Bihar have forests mainly of the moist deciduous variety. The Someshwar and Dun Hills in Champaran districts which receive nearly 60 to 65 inch of rainfall annually and where the summer are not as dry as in the plain region have luxuriant forest of Sal, Shisham, Tun, Khair and Semal trees. Similarly in the Chotanagar plateau and Santhal Pargana too which receive over 50" (inches) of rainfall annually, dense Sal forests are found. The forest areas in the Chotanagpur are mainly in the scarp zones and there are largely within the scarps surrounding the level plateaus.

II. Tropical Dry Deciduous Forest:

These forests are found in the areas which receive less than 50" of rainfall and cover the central part of the Gangetic plain, the north western fringes of the plateau region in Palamu district and the Kaimure Plateau of Rohtas district. The forest are thin in character and consists of Sal interspersed with Sheesham, Semal, Babul and Siris.

Socio-Economic and Demographic Characteristics:

Bihar is the second most populous state of India comprising a little more than 10 percent of the country's population. It is economically the most backward. Along with a very high proportion of population below the poverty line (40.7 percent in the 1987-88) Bihar has the lowest per capita income among all the states of India. Its per

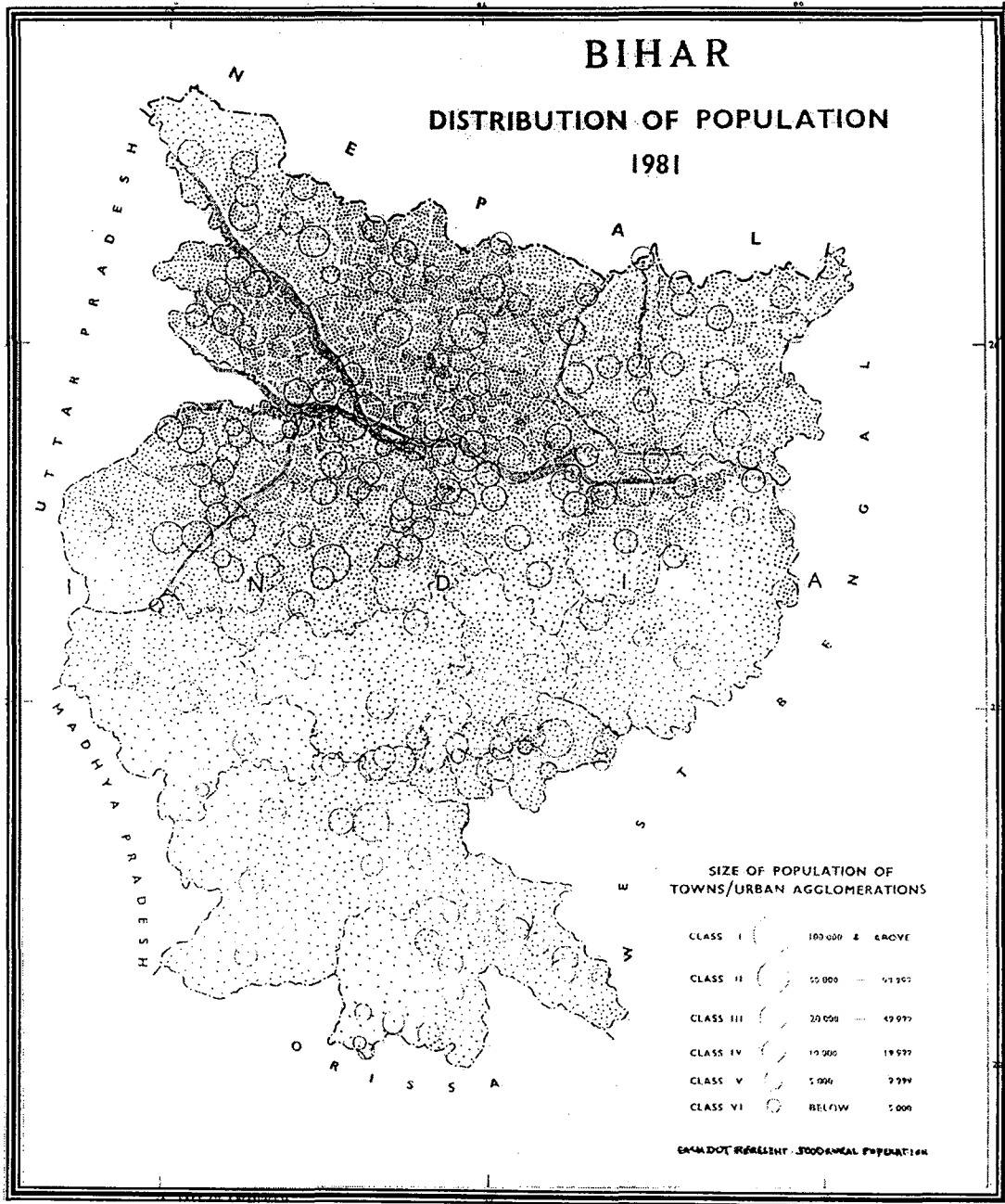
capital income (net G.D.P. at factor cost at current prices) stands at a mere Rs. 2,304 as against Rs. 5,781 for India as a whole.³⁹ The state has the lowest literacy rate among the major states of India – 38.5 percent as against the national average of 53 percent. It has a very high child mortality rate and also fares very badly with respect to other socio-economic indicators of development.

Among the major states of India, it has the lowest per capita rural income (net value added from agriculture – Rs. 948 average of 1987-88 to 1989-90) as against Rs. 1522 for India as a whole.⁴⁰ The reasons for extreme backwardness of agriculture are both institutional and technological. Whereas structural and institutional factors have been operating as a powerful barrier to the agrarian transformation, the technological factors such as poor development of infrastructure like irrigation and power, non-availability of modern inputs, low value of credit and poor extension services, also contributed much to the dismal performance of the states agricultural sector. Though some big industries mostly in the public sector are located in the Bihar, the sluggish rate of growth in agriculture did not produce the spread effects of these industries and hence industrially also the state continues to be backward, even though it possesses the one-fourth of the mineral resources of the country. The major explanation of the states backwardness and poverty however has to be traced to a rural sector. With about 87 percent of the population in rural areas, it is most rural state in the country next only to Assam.

Population is very unevenly distributed in Bihar. In the north part of Bihar the concentration level of population is very high. In the southern part low concentration of population is found. The difference of population concentration is mainly due to

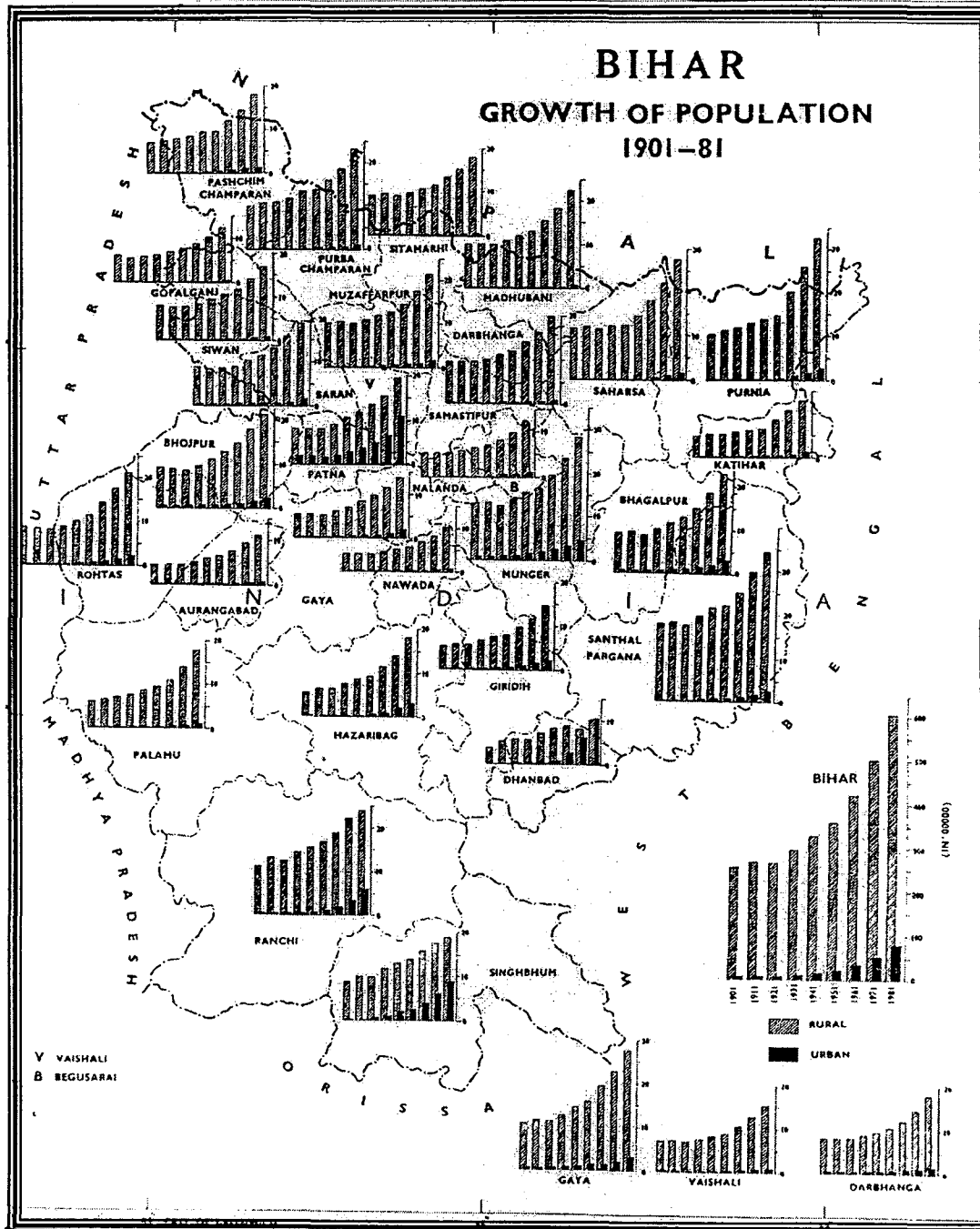
³⁹ C.M.I.E. Report 1994, 'Basic Statistics Relating to Indian Economy, Vol.II, States, Center for Monitoring Indian Economy, Bombay.

⁴⁰ Ibid.



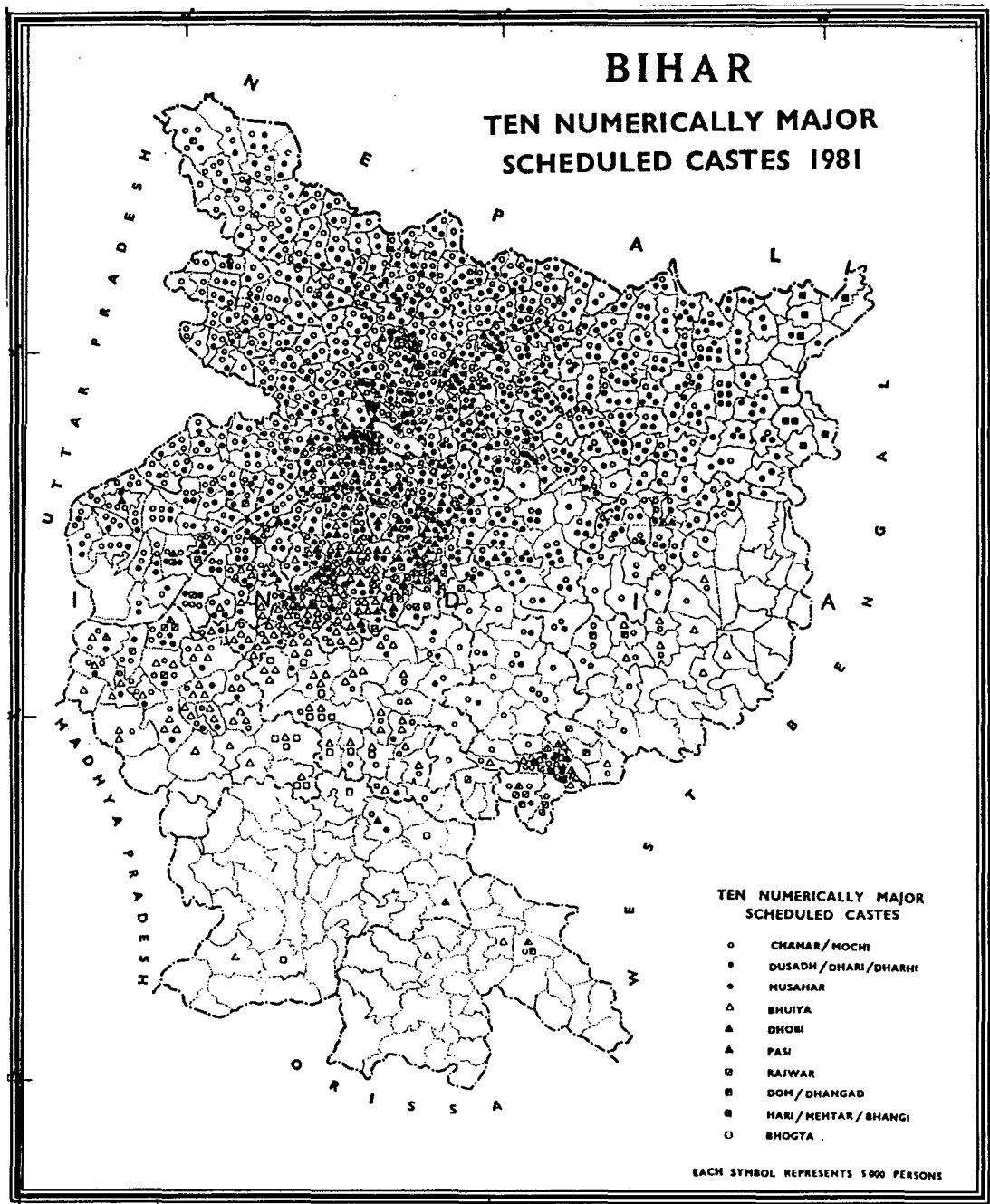
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Map No. 1.6



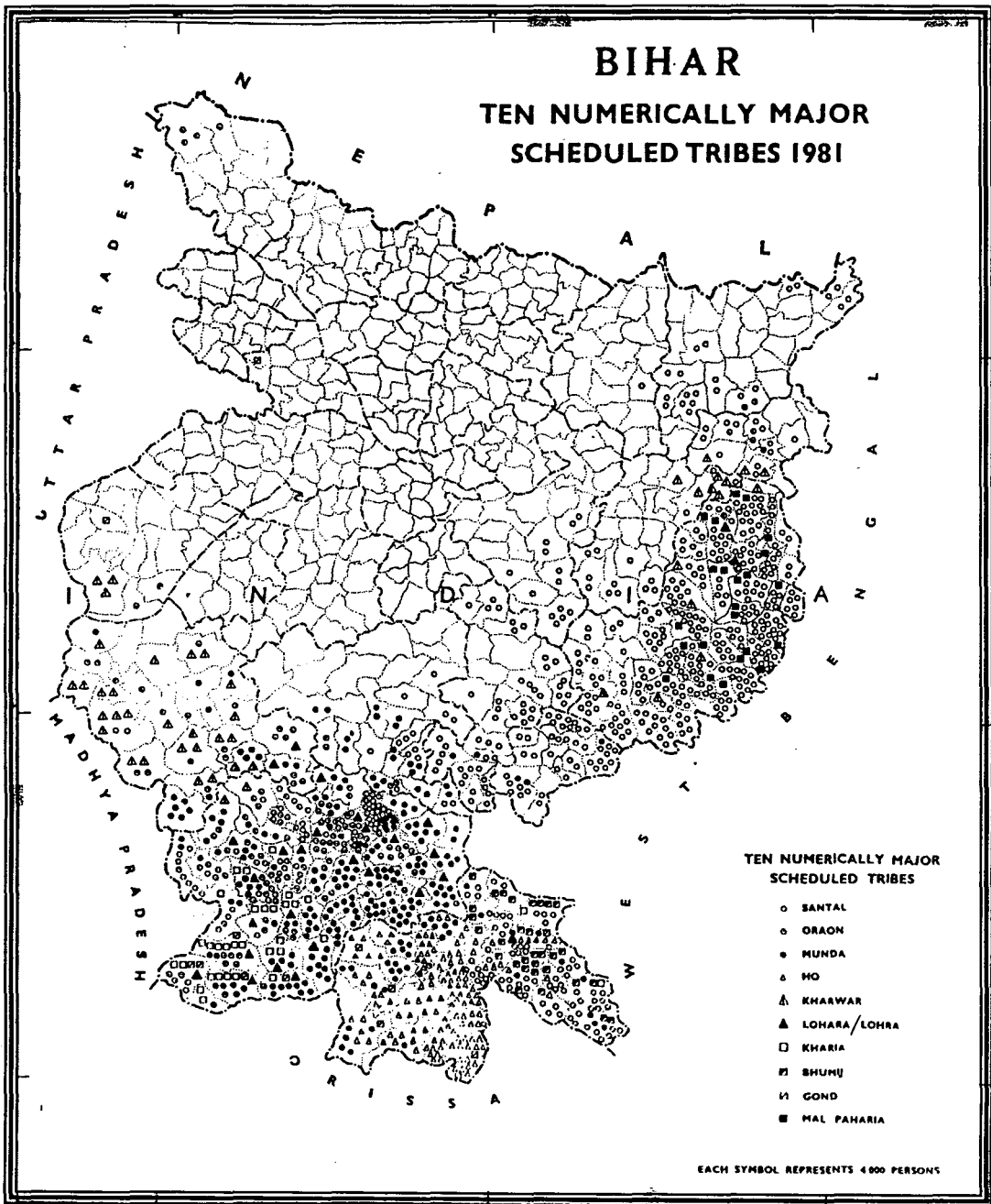
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Map No. 1.7



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Map No. 1. 8



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Map No. 1.9

the physiological differences. The north Bihar is the part of fertile alluvial plain of Ganga and Soan, while the south Bihar is the plateau region (Map no. 1.6).

Again the growth rate of population is not equal in all the districts of Bihar. The districts, which comes under the North Bihar plain has generally high population growth rate. While the most of the southern districts have low population growth rate, compared to the northern part of Bihar (Map no. 1.7).

Socio-cultural profile of population indicates that the North Bihar plain has high concentration of scheduled caste population, while the south part of Bihar has high concentration of scheduled tirbe population (Map no. 1.8 and 1.9).

1.8 CHAPTERISATION SCHEME

The material of the present dissertation has been organised in five chapters:

- (I) Introduction
- (II) Concentration Pattern of Land Holdings in India
- (III) Land Reforms in Bihar: A Historical Perspective
- (IV) Land Concentration in Bihar
- (V) Conclusion

Chapter I – is the introductory chapter which deals with the geographical aspect of the study area, rationale behind land reforms, objective of the study, data base, methodology, literature on land reforms in India and Bihar.

Chapter II – an attempt has been made to examine the concentration pattern of land holding in Indian states on the basis of N.S.S. data. The trend of landlessness has also been examined in this chapter across the states.

Chapter III – deals with historical background of development of land tenure system and various rules and regulation regarding land reforms i.e. abolition of Zamindari Act, Tenancy Reform Laws, Land ceiling laws and its implementation level in Bihar.

Chapter IV – detailed study has been done regarding distribution of land holdings across the districts for two time periods 1970-71 and 1980-81. For getting a clear cut idea, the five size groups of holding have been converted in to three major groups by merging marginal with small and semi-medium with medium, while the large size group has remained unchanged. It has been necessitated for cartographic representation of the data, while the change in distribution, Gini's co-efficient and Lorenz curves have been used for all the five standard groups. Inter class concentration ratio has also been calculated.

Chapter V – in this chapter findings and conclusion have been presented.

CHAPTER 2

CONCENTRATION PATTERN OF LAND HOLDINGS IN THE STATES OF INDIA

During the past five decades or so, the agrarian structure in India, has undergone a remarkable change in the sense that all large intermediaries have been abolished and ownership right has been conferred on a considerable number of tenants. Nevertheless, the basic character of the agrarian economy with high concentration of land holdings in the hands of a few land owners on the one hand and growing number of marginal farmers and landless labourers on the other, remains more or less unaltered.¹ In this way an unequal pattern of land holdings is reflected from the distribution pattern. The following issues will be examined in this chapter:

- (1) What are the distribution patterns of land holdings in India and across the states in different size classes.
- (2) What changes have taken place in both operational holdings as well as area operated during the period 1971-72 and 1991-92.
- (3) How has the concentration of land holdings changed over time?

Any significant change in agrarian structure should have some impact on the size distribution of land holdings. Various aspects of distribution of the operational holding are examined to see whether any such structural change has taken place. In order to observe the change in size distribution, the fifteen size classes of Households (on N.S.S. data, 1991-92, 1981-82, 1970-71) along with their operated area, are

¹ Haque, T. (1995), Role of land reform in rural development in the wake of economic liberalization, Kurukshetra annual number, vol.XLIV, October, 1995, pp.63-69.

further merged into five standard size classes. The landless kept as a separate class.

These are:

Landless households < 0.002 hectares,

Marginal size class (Including landless households) < 1 hectare,

Small size class 1-2 hectare,

Semi-Medium size class 2-4 hectare,

Medium size class 4-10 hectare,

Large size class > 10 hectare.

2.1 DISTRIBUTION PATTERN OF LAND HOLDINGS IN INDIA

Table 2.1 shows that number of landless household in India has sharply declined from 27.4 percent in 1971-72 to 1.1 percent in 1981-82 and further increased to 2.6 percent in 1991-92. Cause for this decrease may be attributed to the pattern of uneconomic size of holding of this class. With the economic development and increasing non-farm sector, the landless people might have joined the other non-farm sector activities.

Table 2.1 shows that, with the increase in the size class of holdings there is a decrease in the number of operational holdings for all the decade across the size classes, for most of the states. But across the time period within a size class this trend is different for different size group of holdings. Only the large size holdings show a continuous decreasing trend for the number of operational holdings while in no other size groups there is a trend of continuous decrease. The declining rate for large

Table 2.1
Distribution of operational holdings, percentage to total rural household in India and states

| India & States | Year | Landless Households | Marginal (including landless) | | Small | | Semi medium | | Medium | | Large | | All sizes | |
|------------------|---------|---------------------|-------------------------------|-------|-------|-------|-------------|-------|--------|-------|-------|-------|-----------|-----|
| | | | H | A | H | A | H | A | H | A | H | A | H | A |
| Andhra Pradesh | 1971-72 | 36.05 | 66.34 | 9.31 | 12.22 | 11.76 | 11.7 | 22.1 | 7.53 | 31.15 | 2.21 | 25.69 | 100 | 100 |
| | 82 | 0.05 | 48.44 | 25.3 | 22.13 | 21.08 | 15.51 | 16.33 | 10.79 | 13.87 | 2.93 | 23.1 | 100 | 100 |
| | 92 | 0.9 | 59.3 | 17.6 | 21.4 | 23.3 | 13.2 | 26.2 | 5.4 | 23.5 | 0.8 | 9.4 | 100 | 100 |
| Assam | 1971-72 | 28.4 | 66.13 | 21.63 | 21.46 | 34.9 | 10.23 | 30.54 | 2.13 | 12.21 | 0.061 | 0.72 | 100 | 100 |
| | 82 | 0.91 | 61.56 | 22.11 | 24.32 | 33.51 | 11.33 | 29.34 | 2.68 | 13.65 | 0.1 | 1.38 | 100 | 100 |
| | 92 | 0.97 | 70.97 | 34.2 | 20 | 31.2 | 7.5 | 22.9 | 1.5 | 9.1 | 0.2 | 2.6 | 100 | 100 |
| Bihar | 1971-72 | 20.7 | 67.36 | 18.16 | 18.51 | 26.24 | 10.23 | 28.83 | 3.6 | 21.03 | 0.35 | 4.5 | 100 | 100 |
| | 82 | 0.24 | 68.69 | 22.42 | 17.62 | 25.85 | 9.9 | 27.08 | 3.38 | 18.8 | 0.41 | 5.87 | 100 | 100 |
| | 92 | 5.2 | 76.7 | 29 | 13.7 | 25.1 | 6.9 | 23.7 | 2.5 | 18.2 | 0.22 | 3.9 | 100 | 100 |
| Gujarat | 1971-72 | 33.7 | 52.2 | 4.2 | 14.2 | 9.2 | 14.66 | 17.61 | 13.65 | 35.3 | 5.24 | 33.72 | 100 | 100 |
| | 82 | 1.82 | 38.63 | 6.53 | 20.38 | 11.32 | 21.3 | 22.42 | 15.82 | 38.6 | 3.89 | 21.14 | 100 | 100 |
| | 92 | 4.7 | 47.9 | 8.5 | 19.8 | 13.8 | 17.7 | 24.9 | 12.1 | 35 | 2.5 | 17.8 | 100 | 100 |
| Haryana | 1971-72 | 48 | 57.12 | 2.561 | 9.56 | 6.92 | 14.78 | 20.4 | 15.75 | 48.8 | 2.8 | 21.32 | 100 | 100 |
| | 82 | 0.42 | 42.22 | 3.75 | 12.74 | 7.29 | 22.88 | 25.56 | 18.81 | 45.57 | 3.36 | 17.84 | 100 | 100 |
| | 92 | 5 | 50.8 | 5.29 | 13.5 | 8.8 | 20.3 | 25.5 | 10.2 | 29.4 | 4 | 30.9 | 100 | 100 |
| Himachal Pradesh | 1971-72 | 7 | 56.88 | 19.72 | 23.62 | 25.18 | 13.2 | 26.09 | 5.85 | 23.38 | 0.5 | 5.62 | 100 | 100 |
| | 82 | 3.4 | 54.24 | 20.69 | 25.17 | 25.94 | 14.89 | 28.59 | 5.5 | 23.16 | 0.22 | 1.63 | 100 | 100 |
| | 92 | 4.1 | 80.6 | 41.4 | 12.3 | 22.5 | 6 | 21.4 | 1.4 | 9.7 | 0.21 | 5 | 100 | 100 |
| Jammu & Kashmir | 1971-72 | 6.6 | 57.68 | 25.1 | 28.71 | 37.38 | 11.5 | 28.02 | 2.07 | 9.058 | ---- | ---- | 100 | 100 |
| | 82 | 0.55 | 60.94 | 26.45 | 24.82 | 32 | 11.88 | 29.02 | 2.33 | 12.23 | 0.03 | 0.31 | 100 | 100 |
| | 92 | 0.72 | 58.92 | 24.96 | 26.7 | 34.7 | 11.8 | 28.3 | 2.5 | 12.1 | ---- | ---- | 100 | 100 |
| Karnataka | 1971-72 | 29.8 | 49.99 | 5.09 | 16.02 | 10.69 | 17.86 | 22.97 | 12.36 | 34.28 | 3.79 | 26.95 | 100 | 100 |
| | 82 | 0.59 | 38.42 | 5.81 | 22.53 | 13.18 | 22.18 | 24.13 | 13.24 | 32.75 | 3.65 | 24.13 | 100 | 100 |
| | 92 | 1.5 | 49.7 | 9.54 | 2 | 15.4 | 18 | 25.2 | 9.8 | 30.8 | 2.3 | 19 | 100 | 100 |
| Kerala | 1971-72 | 11.7 | 87.89 | 40.05 | 7.82 | 24.75 | 3.21 | 20.09 | 1 | 12.26 | 0.08 | 2.86 | 100 | 100 |
| | 82 | 0.11 | 88.95 | 45.45 | 7.28 | 24.09 | 2.89 | 18.48 | 0.81 | 10.06 | 0.07 | 1.92 | 100 | 100 |
| | 92 | 0.65 | 91.65 | 53.5 | 6 | 23.4 | 1.5 | 14.9 | 0.5 | 8.1 | 0.01 | 0.37 | 100 | 100 |

| | | | | | | | | | | | | | | |
|----------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-----|-----|
| Madhya Pradesh | 1971-72 | 17 | 38.68 | 3.42 | 16.84 | 8.86 | 21.35 | 21.2 | 18.02 | 37.93 | 5.15 | 28.58 | 100 | 100 |
| | 82 | 1.54 | 32.97 | 4.67 | 22.51 | 12.31 | 23.12 | 24.18 | 17.84 | 38.59 | 3.58 | 20.24 | 100 | 100 |
| | 92 | 4.9 | 38.6 | 2 | 24.4 | 16.3 | 20.9 | 26.7 | 13.5 | 37.7 | 2.5 | 17.2 | 100 | 100 |
| Maharashtra | 1971-72 | 31 | 47.81 | 3.08 | 14.98 | 8.44 | 15.97 | 17.54 | 15.36 | 35.33 | 5.91 | 35.61 | 100 | 100 |
| | 82 | 5.12 | 35.25 | 3.63 | 19.47 | 9.35 | 21.28 | 20.01 | 18.41 | 34.89 | 5.58 | 29.12 | 100 | 100 |
| | 92 | 4.3 | 43.6 | 6.65 | 18.9 | 12.3 | 20.4 | 25.8 | 14.1 | 38.3 | 3.1 | 16.5 | 100 | 100 |
| Orissa | 1971-72 | 25.13 | 65.94 | 18.61 | 19.39 | 27.32 | 10.37 | 27.07 | 3.9 | 21.55 | 0.4 | 5.46 | 100 | 100 |
| | 82 | 0.04 | 54.44 | 17.02 | 26.11 | 26.48 | 14.08 | 26.15 | 4.62 | 17.85 | 0.73 | 12.5 | 100 | 100 |
| | 92 | 0.4 | 60.1 | 22.1 | 24.3 | 30.1 | 12 | 27.9 | 3.4 | 16.2 | 0.3 | 3.7 | 100 | 100 |
| Punjab | 1971-72 | 58.6 | 63.59 | 1.55 | 7.85 | 7.25 | 13.84 | 25.38 | 12.45 | 45.42 | 2.26 | 20.4 | 100 | 100 |
| | 82 | 4.65 | 59.02 | 3.91 | 10.39 | 8.92 | 13.96 | 21.75 | 14.14 | 45.84 | 2.48 | 19.58 | 100 | 100 |
| | 92 | 3.5 | 63.2 | 2.2 | 11.4 | 11.2 | 13.9 | 27.9 | 9.8 | 42.1 | 1.7 | 16.4 | 100 | 100 |
| Rajasthan | 1971-72 | 7.8 | 25.86 | 2.03 | 18.08 | 6 | 22.73 | 14.17 | 23.09 | 33.03 | 10.2 | 44.8 | 100 | 100 |
| | 82 | 1.51 | 30.52 | 3.54 | 17.48 | 6.98 | 22.09 | 17.08 | 22.5 | 36.51 | 7.4 | 35.9 | 100 | 100 |
| | 92 | 1.3 | 39.3 | 5.5 | 19.9 | 9.4 | 18.5 | 17.2 | 15.2 | 30.2 | 7.1 | 37.7 | 100 | 100 |
| Tamil Nadu | 1971-72 | 42 | 76.77 | 21.93 | 12.45 | 22.9 | 7.67 | 27.44 | 2.82 | 21.42 | 0.34 | 6.3 | 100 | 100 |
| | 82 | 1.37 | 71.39 | 22.37 | 16.72 | 26.72 | 8.28 | 25.37 | 1.01 | 20.69 | 0.28 | 4.84 | 100 | 100 |
| | 92 | 1.6 | 40.1 | 28.9 | 14.1 | 28.1 | 6.6 | 24.7 | 1.8 | 13.2 | 0.27 | 5.1 | 100 | 100 |
| Uttar Pradesh | 1971-72 | 24.3 | 61.69 | 15.68 | 20.48 | 25.43 | 12.62 | 29.2 | 4.76 | 23.4 | 0.49 | 5.63 | 100 | 100 |
| | 82 | 0.55 | 59.61 | 18.64 | 21.59 | 24.49 | 12.87 | 28.9 | 5.39 | 24.22 | 0.53 | 6.66 | 100 | 100 |
| | 92 | 1.8 | 48.1 | 25 | 18.5 | 26.3 | 9.8 | 26.3 | 3.1 | 18.2 | 0.3 | 4.3 | 100 | 100 |
| West Bengal | 1971-72 | 31 | 73.23 | 24.78 | 15.77 | 28.94 | 8.95 | 31.05 | 2.06 | 14.59 | 0.05 | 0.64 | 100 | 100 |
| | 82 | 0.69 | 74.32 | 29.27 | 15.83 | 28.77 | 8.07 | 28.24 | 1.67 | 11.39 | 0.1 | 2.32 | 100 | 100 |
| | 92 | 1.8 | 80.7 | 41.4 | 13.4 | 19.2 | 5 | 32.8 | 0.9 | 6.5 | ---- | ---- | 100 | 100 |
| All India | 1971-72 | 27.4 | 60.26 | 9.26 | 16.44 | 14.91 | 12.94 | 22.61 | 8.1 | 30.4 | 2.24 | 22.83 | 100 | 100 |
| | 82 | 1.1 | 56 | 11.5 | 19.32 | 16.59 | 14.23 | 23.55 | 8.55 | 30.15 | 1.89 | 18.21 | 100 | 100 |
| | 92 | 2.6 | 62.9 | 15.6 | 17.8 | 18.7 | 12 | 24.1 | 6.1 | 26.4 | 1.3 | 15.2 | 100 | 100 |

Source: Various issues of N.S.S. reports on land holdings (1971-72, 1981-82 and 1991-92).

operational holding size is 2.2 percent in 1971-72 to 1.3 percent 1991-92. In marginal size group, it is 60.26 percent in 1971-72 to 56 percent in 1981-82, again increase to 62.9 percent in 1992 (Fig 2.1, 2.2 and 2.3).

2.2 STATE-WISE DISTRIBUTION OF NUMBER OF OPERATIONAL HOLDING

The trend of the number of landless households in the states shows that in 1971-72 its share is very high in most of the states, but it has sharply declined in all the states for the year 1981-82. In some states its trend shows constant decline in the year 1991-92, these states are – Maharashtra, Punjab and Rajasthan. In the remaining states, its share has increased a little between 1982 and 1992.

The share of number of Marginal land holdings is more than 50% of the total number of the households during all the decades in almost all the states except Karnataka, Madhya Pradesh, Rajasthan and Maharashtra. In Gujarat, Tamil Nadu and Uttar Pradesh the proportion of operational holding was more than 50 percent of the total holdings of the state in 1971, but it has declined to less than 50 percent for the year 1991. The changes in number of holdings in all the states may be attributed to persistence of large holdings and increasing industrial activity along with other non-farm activity and development of tertiary sector, in these three states, where these activities have been able to absorb the marginal holders in other sector rather than agriculture.

The majority of the households in all the time period come under small size of holdings, but some states like Haryana, Jammu & Kashmir and Karnataka are exception. In most of the states number under small households is below 25 percent

Figure 2.1

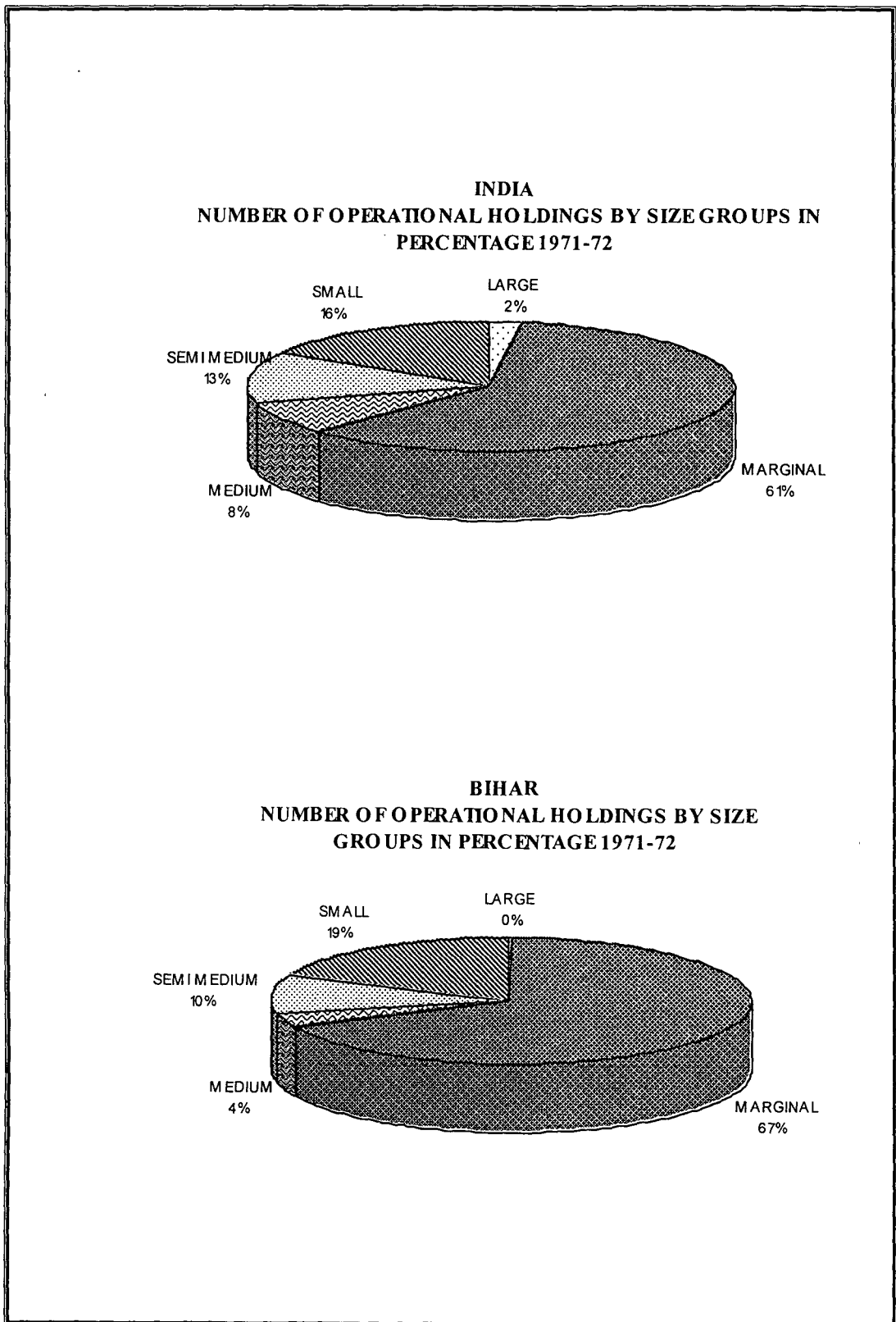


Figure 2.2

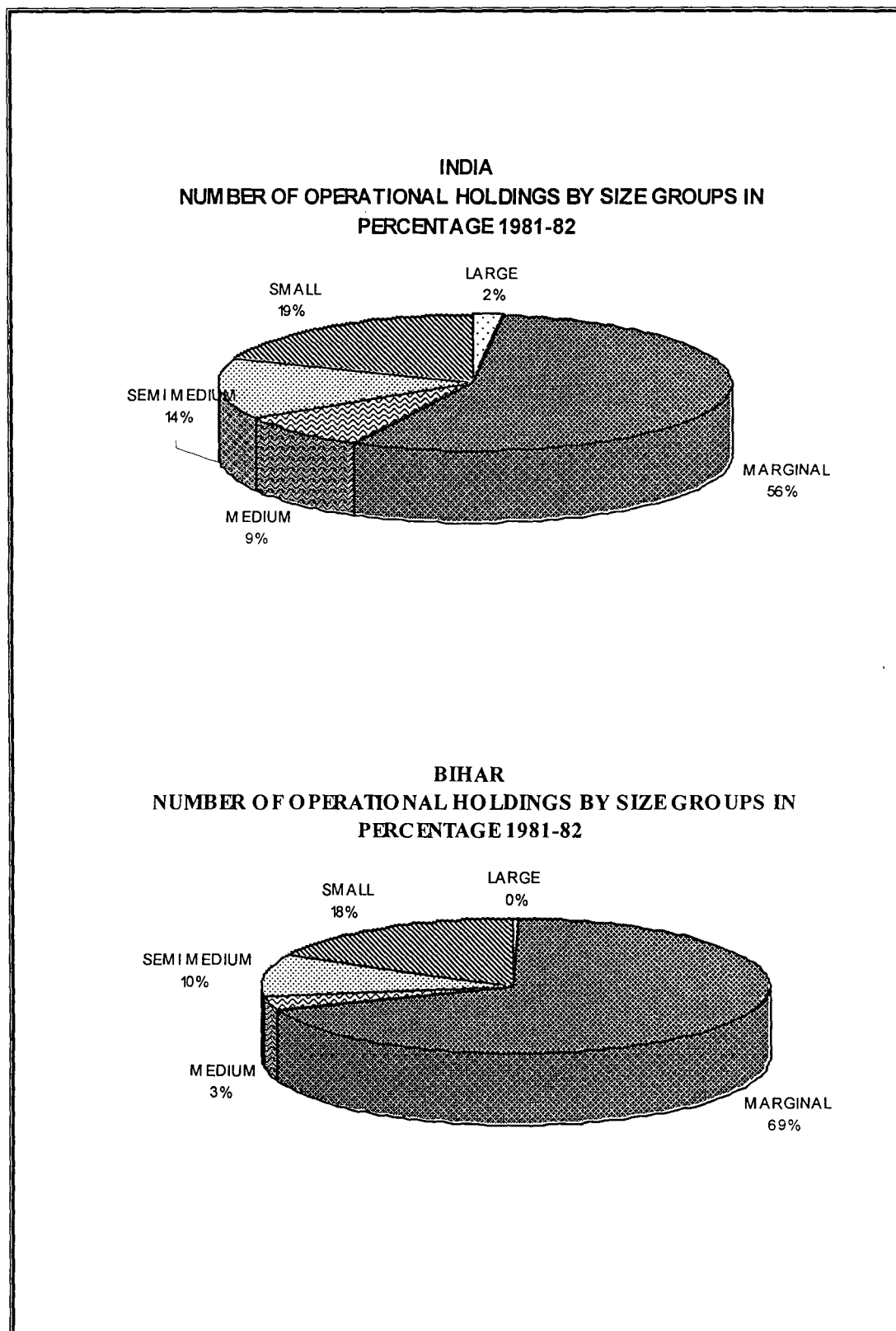
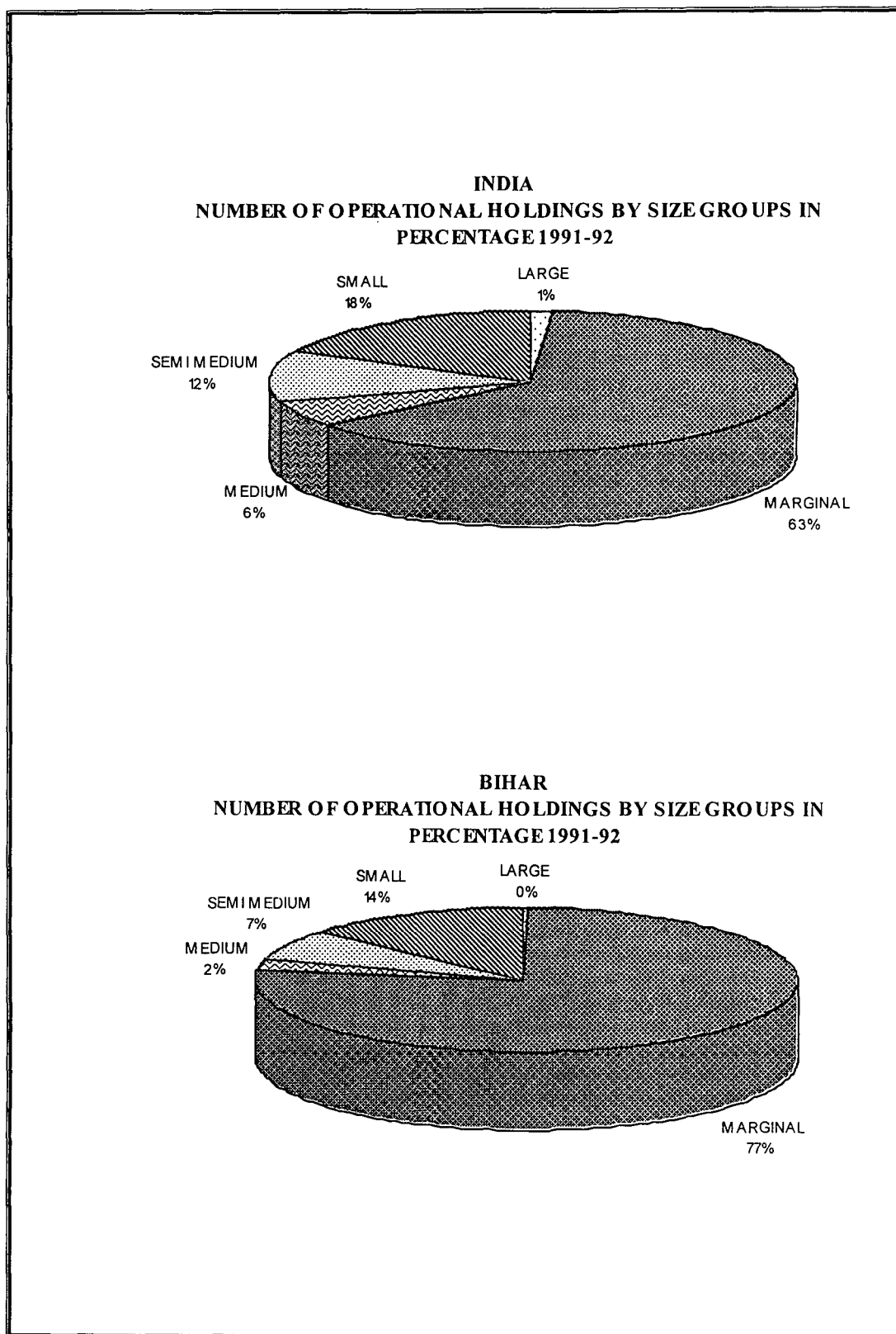


Figure 2.3



for the year 1992. Only in Jammu & Kashmir its share is greater than 25 percent. Small size holdings shows a mixed trend. Its share has declined in eight states and has increased in ten states. In case of medium and large holdings, with exception of Haryana (for large holdings) and Jammu & Kashmir (for medium size of holdings) there has been a general decline in their share in the remaining states.

2.3 DISTRIBUTION OF AREA UNDER OPERATIONAL HOLDINGS AND ITS TREND IN INDIA

Table 2.1 shows that the share of marginal holdings in total operated area for India, has increased from 9.26 percent in 1971-72 to 15.6 percent in 1991-92. The area under small holdings has also increased from 14.91 percent in 1972 to 18.7 percent in 1992. There is a little increase in semi-medium households area from 22.6 percent in 1972 to 24.1 percent in 1992. While the medium and large size group has shown decline. The area of medium size class has declined from 30.4 percent in 1972 to 26.4 percent in 1992. The area of large size has sharply declined from 22.83 percent in 1972 to 15.3 percent in 1992 (Fig 2.4, 2.5 and 2.6). The cause for decreasing the area under large size household may be attributed to fragmentation of family holdings.

Table 2.2

Trends in the concentration of operated area All India (Rural)

| Size class households operational holdings | Percentage share of operated area | | |
|--|-----------------------------------|---------------------------|---------------------------|
| | 71-72 (26 th) | 81-82 (37 th) | 91-92 (48 th) |
| Bottom 30% | 4.4 | 2.2 | 3.0 |
| Bottom 60% | 18.6 | 14.9 | 14.2 |
| Top 10% | 45.0 | 47.2 | 47.6 |
| Top 5% | 30.6 | 32.4 | 33.6 |

Source: N.S.S. Report 407, some aspects of operational holdings.

Figure 2.4

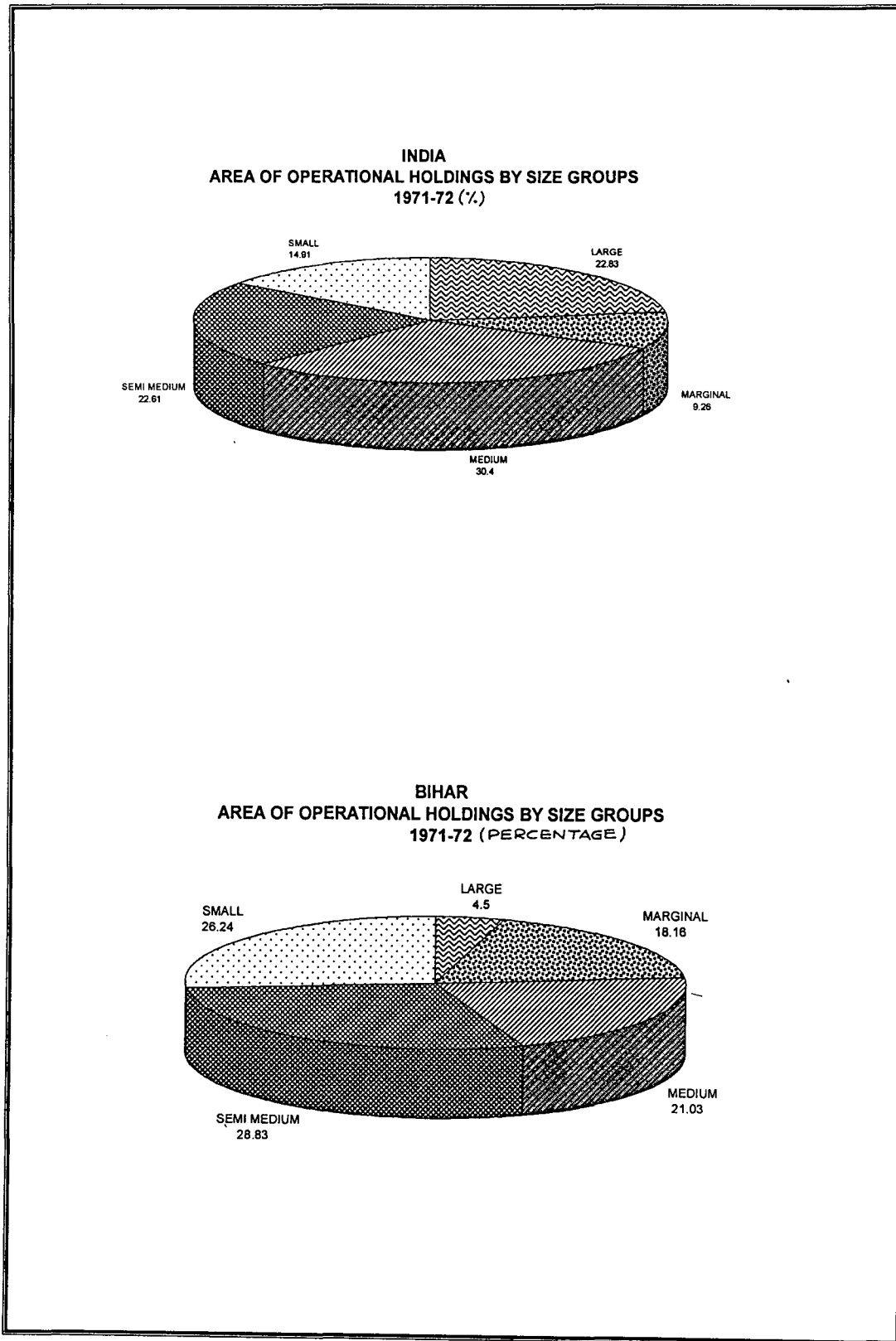


Figure 2.5

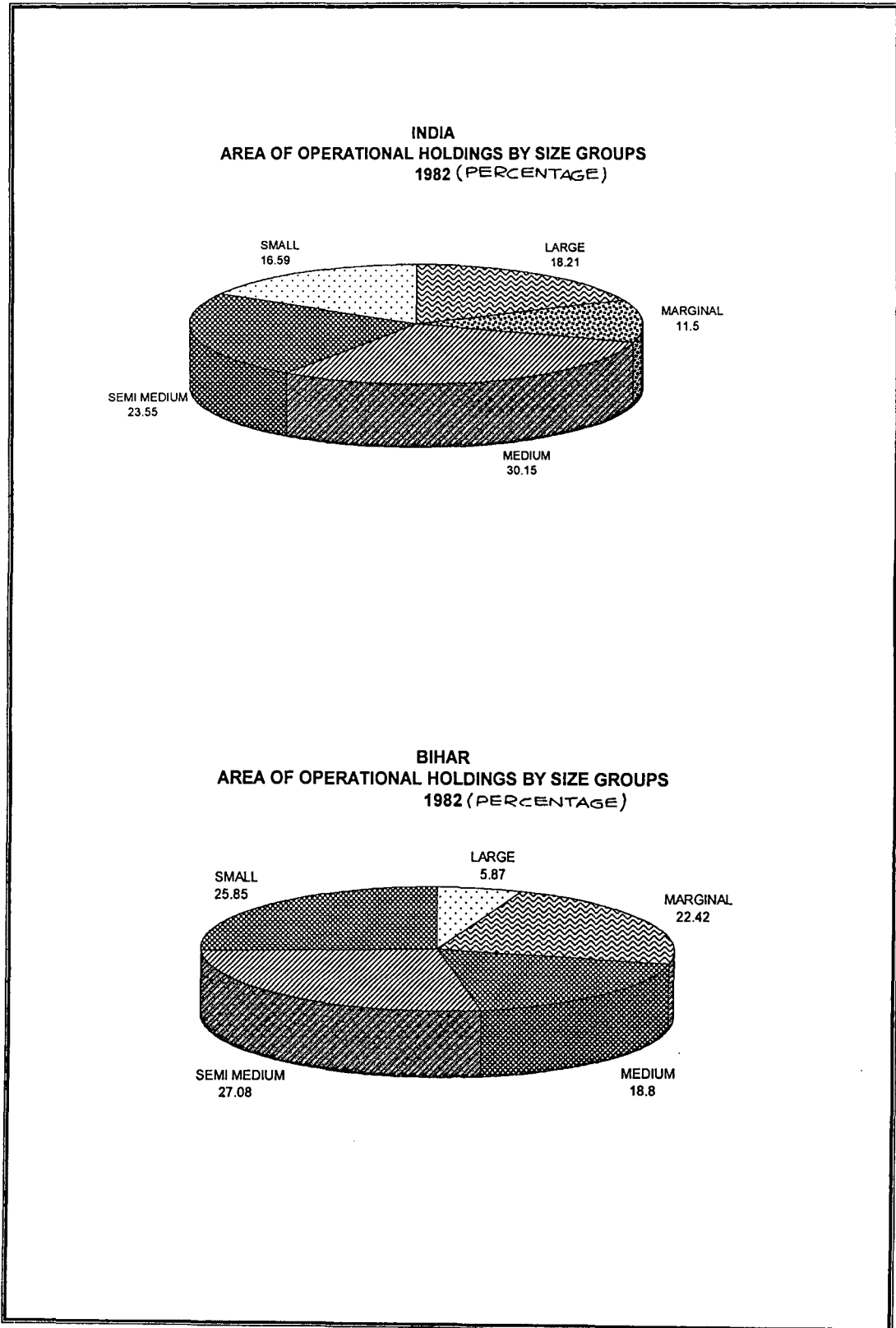
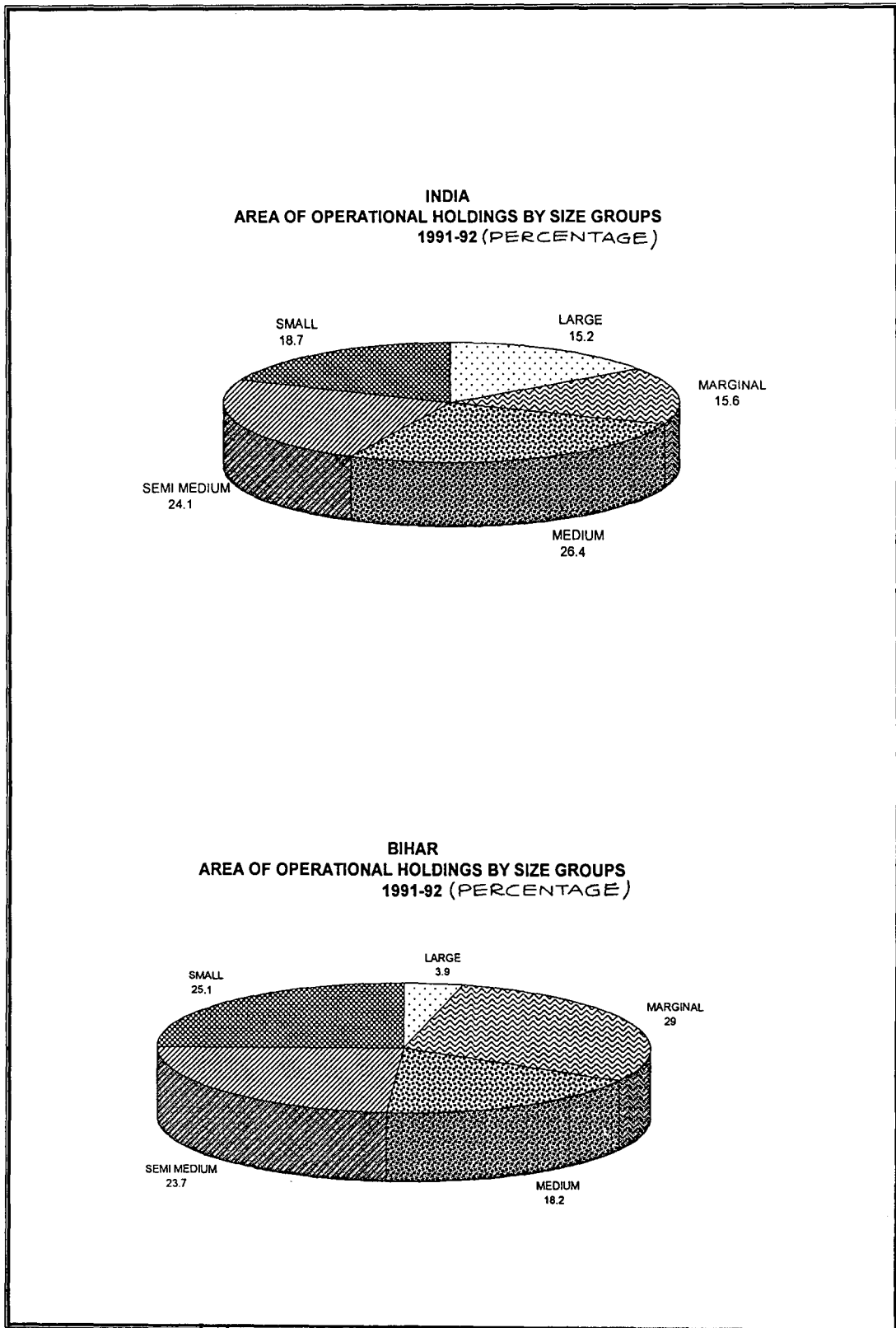


Figure 2.6



The table 2.2 shows that the share of the bottom 60 percent of the operational holdings in the total operated area has progressively declined over the two decades. As against this, the shares of both the top 10 percent and 5 percent size groups of holdings have increased, though at a low rate, during this period. Overall decline in the share of the bottom 60 percent of holdings is about 4.2 percent between 1971-72 and 1991-92. A great deal of this decline is accounted by the rise in the share of top 5 percent by 3 percent over the same period. Thus, it is seen that the inequality in operational holdings, is not only high but has been increasing during the last two decades.

2.4 STATE WISE DISTRIBUTION OF OPERATED AREA

The scenario of operated area across the states is not much different from the national scene. But due to the peculiarity of some states and their historical socio-economical and infrastructural background has given them a different psychological make up and their scene is different from other states as well as from the country as a whole.

Area under the marginal size class of holdings shows a continuous increasing trend for 12 states out of 17 states during all the selected time periods. In the remaining five states the trend is totally opposite. Madhya Pradesh experienced declining trend for all the time periods. Andhra Pradesh, Jammu & Kashmir and Punjab show an increase in area for the period 1982 and then decrease in 1992. In Orissa it has declined in 1982 and then, increased in 1992. The decreasing trend of area under this size class of holdings may be attributed to population pressure and high growth rate. This phenomenon has lead to fragmentation of households and due to this fact number of holding has registered increase but area has recorded decrease.

Again the amount of area percentage under this size class much varies among the states. Like in Kerala it is highest for the year 1992 (53.5%), followed by West Bengal (41.4%) and Himachal Pradesh (41.4%). Lowest in M.P. for the year 1992 (2.0%) followed by Punjab (2.2%). The cause for high concentration of area in West Bengal and Kerala may be attributed to better implementation of land reform through the communist government. Again it may be attributed to the fact that the base of rural holdings from initial time is very-very high for both the state. Both the states are small in size but with high population. In Himachal Pradesh it is high for this class due to the sharp decrease of medium size of holding 23.38% to 9.7% for the respected year 1972 to 1992. In Madhya Pradesh area under marginal holdings is lowest due to the concentration of large size of land holding and also the increasing nature of small and medium size of holding. In Punjab due to the effect of green revolution area of marginal size group probably shifted to small and other large holdings and area of marginal size is very small. Bihar shows an increasing trend of the area in this size group as the case with the other states of India.

Area under small size of holdings has different trend for different states. Though, most of the states has an increasing trend for all the decade. These states are – Andhra Pradesh, Haryana, Gujarat, Himachal Pradesh, Madhya Pradesh, Maharashtra, Karnataka, Uttar Pradesh and Punjab. In the states of Assam, Bihar, Kerala, West Bengal and Jammu and Kashmir, there is a continuous decreasing trend in the area, while other states shows a mixed trend.

Area under semi-medium size of holdings, near about five states (Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan) has experienced continuous increasing trend, four of the state experienced decreasing trend (Assam, Bihar, Kerala

and Tamil Nadu). These are Assam, Bihar, Kerala and Tamil Nadu. While remaining states has experienced fluctuating trend, for the year 1971-71, to 1981-82 and 1991-92. In the medium size-class the Area under holdings shows continuous decreasing trend for nine states out of 17 states whereas rest of the states depicts a mixed trend.

In the large size class of holdings the area shows an increasing trend for the two states – Himachal Pradesh and Haryana. While in the remaining most of the states (near about 14) shows continuous decline in the area of large holdings as the case at the national level. The reason for decreasing the large size of holdings may be attributed to fragmentation of land holding due to population pressure. The change of land holdings in India and Bihar are presenting same feature for all size class of holdings, except small and semi-medium size class. In Bihar all size classes number and area is decreasing and it is increasing only for the small size groups in both terms, while for India, it is increasing for both. In semi-medium size group the holdings is decreasing for India but area is increasing.

One thing which is obvious from large size of holdings is that in the states Rajasthan (37.7%), Punjab (16.4%), Madhya Pradesh (17.2%), Haryana (30.9%), Gujarat (17.8%) and Maharashtra (16.5%) have larger proportion of their holdings under this size. In the case of Punjab and Haryana due to the effect of green revolution the consolidation of land took place which marginalized the small farmers which made land reforms less practical. For Rajasthan the scarce population and also faulty land reforms implementation lead to concentration of large size of holdings in few hands. In Gujarat and Madhya Pradesh due to low population pressure, and historically persistence of landlordism lead to the non fulfilment to the aims of land reforms.

Table 2.1 is showing quite low existence of large holdings in Bihar which is only 4.5 percent for 1972 and 3.9 percent for 1992. This may be due to the illegal and benami land holding with absentee landlords.

2.5 INEQUALITY MEASUREMENT THROUGH GINI'S CO-EFFICIENT METHOD

The concentration ratio of operational holdings in the country as a whole has increased from 0.586 in 1971-72 to 0.629 in 1981-82 to 0.641 for the year 1992, excluding land less households of operational holdings. It means inequality is showing an increasing trend. For including landless households it is 0.81, 0.63 and 0.65 for the respective year 1972, 1982 and 1992. The trend is fluctuating which shows that inequality has decreased at a faster rate in 1981, while it increased at a slower rate in 1992. The cause for the increasing inequality level may be attributed to high population growth rate which lead to the fragmentation of land holdings along with the marginalisation of small farmers. The effect of green revolution and consolidation of holdings is also experienced in some of the states, like Punjab and Haryana, so the inequality level has increased. For, including landless households the inequality level was very high in 1971, due to high majority of landless class in most of the states (Table 2.3).

Inequality across the states shows that in Assam, Kerala, Orissa and West Bengal, the concentration ratios has increased during 1971-72 to 1981-82, while it shows a marginal decline in the following decade. In the case of Assam and West Bengal there is a substantial rise during the period 1972 to 1982. The only major state not registering a rise in the either of the decade is Andhra Pradesh.

Table 2.3

Concentration Ratio (G.C.) of land holdings in Indian states (1971-72, 1981-82 and 1991-92)

| States | Excluding landless households | | | Including landless households | | |
|----------------|-------------------------------|---------|---------|-------------------------------|---------|---------|
| | 1971-72 | 1981-82 | 1991-92 | 1971-72 | 1981-82 | 1991-92 |
| Andhra Pradesh | 0.603 | 0.599 | 0.576 | 0.89 | 0.6 | 0.58 |
| Assam | 0.422 | 0.519 | 0.494 | 0.75 | 0.52 | 0.5 |
| Bihar | 0.556 | 0.606 | 0.637 | 0.74 | 0.61 | 0.66 |
| Gujarat | 0.54 | 0.558 | 0.604 | 0.85 | 0.57 | 0.62 |
| Haryana | 0.464 | 0.598 | 0.675 | 0.98 | 0.6 | 0.69 |
| Karnataka | 0.527 | 0.581 | 0.609 | 0.81 | 0.59 | 0.61 |
| Kerala | 0.647 | 0.649 | 0.636 | 0.73 | 0.65 | 0.64 |
| Madhya Pradesh | 0.533 | 0.535 | 0.558 | 0.69 | 0.54 | 0.58 |
| Maharashtra | 0.526 | 0.571 | 0.598 | 0.82 | 0.59 | 0.62 |
| Orissa | 0.501 | 0.526 | 0.514 | 0.75 | 0.53 | 0.52 |
| Punjab | 0.418 | 0.702 | 0.73 | 0.9 | 0.72 | 0.74 |
| Rajasthan | 0.564 | 0.604 | 0.613 | 0.63 | 0.61 | 0.62 |
| Tamil Nadu | 0.516 | 0.64 | 0.646 | 0.92 | 0.65 | 0.65 |
| Uttar Pradesh | 0.495 | 0.565 | 0.572 | 0.74 | 0.57 | 0.58 |
| West Bengal | 0.49 | 0.597 | 0.585 | 0.81 | 0.6 | 0.59 |
| All India | 0.586 | 0.629 | 0.641 | 0.81 | 0.63 | 0.65 |

Source: Various issues of N.S.S. reports on land holdings (1971-72, 1981-82 and 1991-92).

In the year 1972 the lowest inequality has been registered in the state of Punjab i.e. 0.418 followed by Assam (0.422) and Haryana (0.464). Out of these three states Punjab and Haryana has experienced a higher rate of inequality in both the decade and went up to 0.73, and 0.675 respectively, which is first and second highest in the year 1991-92 out of all the major states. The cause for increasing higher inequality in these two states may be attributed to “green revolution” which has made a high gap between landless and landowning class.

In the case of Bihar inequality level is lower than the national level for all the decade and it is continuously on increasing trend. Cause for increasing inequality may be attributed to high growth rate of population on lower size groups and high rate of fragmentation of landholding in smaller size class and persistence of landlordism in upper size groups of holdings.

2.6 CHANGES IN THE NUMBER OF OPERATIONAL HOLDINGS AND OPERATED AREA FROM 1972 TO 1992

Table 2.4 shows the percentage changes in different categories of operational holdings and the proportion of area operated by them. At India level the changes are positive only for the size group in Marginal (including landless) and small number of holdings, it is 2.64 and 1.36 for the period 1972 to 1992. The remaining size groups shows negative growth rate for number of holdings. It means in all other sizes the number is decreasing from 1972 to 1992. The reason may be attributed to increasing trend of secondary and tertiary sector in the country for this time period. Lower amount of savings in agricultural sector, compared to the other sectors may also be one of the factor. Increasing number of marginal and small farmer may be due to the high population growth rate in this size group and lack of other source of livelihood except agriculture. The area of holdings shows a positive change for marginal, small, and semi-medium size class. The change occurring is 6.34 percent, 3.79 percent and 1.49 percent respectively, for the period 1972 to 1992. The negative change is occurring for the large size group (-7.36%) medium size class (-4%). So it is obvious that the area of large and medium size group is shifted towards the marginal, small and semi-medium size class.

Changes in landless households across the states shows that number of landless household has declined in all the states. The lowest decline is recorded for Himachal Pradesh and highest for Punjab, for the year 1972 to 1982. The reason for great decline in landless households in Punjab may be attributed to the fact of being an uneconomic size of holding of this class. Again with the economic development and

Table 2.4
Changes in the number of operational holdings and operated area in Indian states (1972 to 1992)

| India & States | Number of operational holdings | | | | | |
|------------------|--------------------------------|-------------------------------|--------|-------------|--------|-------|
| | Landless household | Marginal (including landless) | Small | Semi-medium | Medium | Large |
| Andhra Pradesh | -35.15 | -7.04 | 9.18 | 1.5 | -2.13 | -1.41 |
| Assam | -27.43 | 4.84 | -1.46 | -2.73 | -0.63 | 0.139 |
| Bihar | -15.5 | 9.34 | -4.81 | -3.33 | -1.1 | -0.13 |
| Gujarat | -29 | -4.3 | 5.6 | 3.04 | -1.55 | -2.74 |
| Haryana | -43 | -6.32 | 3.94 | 5.52 | -5.55 | 1.2 |
| Himachal Pradesh | -2.9 | 23.72 | -11.32 | -7.2 | -4.45 | -0.29 |
| Jammu & Kashmir | -5.88 | 1.24 | -2.01 | 0.3 | 0.43 | 0 |
| Karnataka | -28.3 | -0.29 | -14.02 | 0.14 | -2.56 | -1.49 |
| Kerala | -11.05 | 3.76 | -1.82 | -1.71 | -0.5 | -0.07 |
| Madhya Pradesh | -12.1 | -0.08 | 7.56 | -0.45 | -4.52 | -2.65 |
| Maharashtra | -26.7 | -4.21 | 3.92 | 4.43 | -1.26 | -2.81 |
| Orissa | -24.73 | -5.84 | 4.91 | 1.63 | -0.5 | -0.1 |
| Punjab | -55.1 | -0.39 | 3.55 | 0.06 | -2.65 | -0.56 |
| Rajasthan | -6.5 | 13.44 | 1.82 | -4.23 | -7.89 | -3.1 |
| Tamil Nadu | -40.4 | -36.67 | 1.65 | -1.07 | -1.02 | -0.07 |
| Uttar Pradesh | -22.5 | -13.59 | -1.98 | -2.82 | -1.66 | -0.19 |
| West Bengal | -29.2 | 7.47 | -2.37 | -3.95 | -1.16 | 0 |
| All India | -24.8 | 2.64 | 1.36 | -0.94 | -2 | -0.94 |

| India & States | Operated Area | | | | |
|------------------|-------------------------------|-------|-------------|--------|--------|
| | Marginal (including Landless) | Small | Semi-medium | Medium | Large |
| Andhra Pradesh | 8.29 | 11.54 | 4.1 | -7.65 | -16.29 |
| Assam | 12.57 | -3.7 | -7.64 | -3.11 | 1.88 |
| Bihar | 10.84 | -1.14 | -5.13 | -2.83 | -0.6 |
| Gujarat | 4.3 | 4.6 | 7.29 | -0.3 | -15.92 |
| Haryana | 2.729 | 1.88 | 5.1 | -19.4 | 9.58 |
| Himachal Pradesh | 21.68 | -2.68 | -4.69 | -13.68 | -0.62 |
| Jammu & Kashmir | -0.14 | -2.68 | 0.28 | 3.042 | 0 |
| Karnataka | 4.45 | 4.71 | 2.23 | -3.48 | -7.95 |
| Kerala | 13.45 | -1.35 | -5.19 | -4.16 | -2.49 |
| Madhya Pradesh | -1.42 | 7.44 | 5.5 | -0.23 | -11.38 |
| Maharashtra | 3.57 | 3.86 | 8.26 | 2.97 | -19.11 |
| Orissa | 3.49 | 2.78 | 0.83 | -5.35 | -1.76 |
| Punjab | 0.65 | 3.95 | 2.52 | -3.32 | -4 |
| Rajasthan | 3.47 | 3.4 | 3.03 | -2.83 | -7.1 |
| Tamil Nadu | 6.97 | 5.2 | -2.74 | -8.22 | -1.2 |
| Uttar Pradesh | 9.32 | 0.87 | -2.9 | -5.2 | -1.33 |
| West Bengal | 16.62 | -9.74 | 1.75 | -8.09 | 0 |
| All India | 6.34 | 3.79 | 1.49 | -4 | -7.63 |

Source: Various issues of N.S.S. reports on land holdings (1971-72, 1981-82 and 1991-92).

increasing non-farm sector the landless people might have joined the other non-farm sector activities.

Change in number and area of small size of holdings in India represents that in most of the states, number as well as area has changed in the same positive direction as the country. These states are Andhra Pradesh, Gujarat, Haryana, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, and Tamil Nadu. In some states it is negative for both number and area. These are Assam, Bihar, Madhya Pradesh, Jammu and Kashmir, Kerala and West Bengal. While in some states the area is increasing but number is declining. These states are Karnataka and Uttar Pradesh. The decreasing trend of number of operational holdings may be explained through the development of industrial activity and other non-farm sector, technical enhancement in agricultural sector, and low lucrativeness of agri business with lots of risks. While, the positive change, of area and number of this size group may be attributed to population pressure upon agriculture sector, traditional nature of agriculture in the state.

The number and area regarding semi medium size of holdings represents that the number of operational holdings has declined in majority of the states and area also declined in six states out of seventeen. Maharashtra is one of the state where the increase in operated area was more pronounced along the small increase in operational holdings during the period 1971-72 to 1991-92. Similarly the state of Gujarat also experienced increase in operated area along with small increase in operational holdings under this category during the same period.

2.7 INTERCLASS CONCENTRATIONS RATIO (I.C.C.R./ICCs)

In order to study structural changes in distribution over time interclass concentration has been calculated operational holdings. Table 2.5 shows that in India, the interclass concentrations (ICCs) had declined for the period 1970-71 to 1981-82 in almost all the size classes of operational holdings. The value is less than hundred for marginal and small classes. It means the marginal and small classes are having less amount of land than their respective share of equitable distribution of land. The ICCs values are more than hundred for semi-medium, medium and large size classes. It shows that these classes are having land more than their share of equitable distribution.

ICCs value across the major states indicates that ICCs is less than 100 in marginal class, for all the time period. It means every state has low proportion of land in this size class from the equal distribution of land. Whereas the value of ICCs is greater than 100 in semi-medium, medium, and large size classes for all the time period, for all the states. It means these classes keep more than their respective share of equal distribution. The values of ICCs is increasing with respect to the increase of size classes of holdings. It means greater the size classes greater will be the ICCs value and vice-versa.

The small size class shows mixed trend for it. Out of major seventeen states, seven states has ICCs value less than hundred these are – Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Gujarat, Haryana and Karnataka. The ICCs value is high for the state Assam, Bihar, Himachal Pradesh, Jammu and Kashmir, Kerala, Orissa, Tamil Nadu and Uttar Pradesh. The seven states which has lower ICCs value in small size class. Some of them are agriculturally very developed like Punjab and

Table 2.5
Inter class concentration ratio of land holdings in India (1972, 1982 and 1992)

| India & States | Year | Marginal (including landless) | Small | Semi-medium | Medium | Large |
|------------------|---------|-------------------------------|-------|-------------|--------|--------|
| Andhra Pradesh | 1971-72 | 14.03 | 96.2 | 188.9 | 413.7 | 1162.4 |
| | 82 | 52.23 | 95.26 | 105.29 | 128.54 | 788.4 |
| | 92 | 29.68 | 108.9 | 198.5 | 435.2 | 1175 |
| Assam | 1971-72 | 32.71 | 162.6 | 298.5 | 573.2 | 1180.3 |
| | 82 | 35.92 | 137.8 | 259 | 509.3 | 1380 |
| | 92 | 48.19 | 156 | 305.3 | 606.7 | 1300 |
| Bihar | 1971-72 | 26.96 | 141.8 | 281.8 | 584.2 | 1285.7 |
| | 82 | 32.64 | 146.7 | 273.5 | 5.6 | 1431.7 |
| | 92 | 37.81 | 183.2 | 343.5 | 728 | 1772.7 |
| Gujarat | 1971-72 | 8.05 | 64.8 | 120.1 | 197.1 | 643.5 |
| | 82 | 16.90 | 55.5 | 105.3 | 244 | 543.4 |
| | 92 | 17.75 | 69.7 | 140.7 | 289.3 | 712 |
| Haryana | 1971-72 | 4.48 | 72.4 | 138 | 309.8 | 761.4 |
| | 82 | 8.88 | 57.2 | 111.7 | 242.3 | 531 |
| | 92 | 10.41 | 65.19 | 125.6 | 288.2 | 772.5 |
| Himachal Pradesh | 1971-72 | 34.67 | 106.6 | 197.7 | 399.7 | 1124 |
| | 82 | 38.15 | 103.1 | 192 | 421.1 | 741 |
| | 92 | 51.36 | 182.9 | 356.7 | 692.9 | 2381 |
| Jammu & Kashmir | 1971-72 | 43.52 | 130.2 | 243.7 | 462.8 | |
| | 82 | 43.40 | 128.9 | 244.3 | 524.9 | 1033.3 |
| | 92 | 42.36 | 130 | 239.8 | 484 | |
| Karnataka | 1971-72 | 10.18 | 66.7 | 128.6 | 277.3 | 711 |
| | 82 | 15.12 | 58.5 | 108.8 | 247.4 | 661.1 |
| | 92 | 19.20 | 770 | 140 | 31403 | 826.1 |
| Kerala | 1971-72 | 45.57 | 316.5 | 625.8 | 1226 | 3314 |
| | 82 | 51.10 | 331 | 639.4 | 1242 | 2743 |
| | 92 | 58.37 | 390 | 993.3 | 1620 | 3700 |

| | | | | | | |
|----------------|---------|-------|--------|--------|--------|---------|
| Madhya Pradesh | 1971-72 | 8.84 | 52.6 | 54.3 | 210.5 | 555 |
| | 82 | 14.16 | 54.7 | 104.6 | 216.3 | 565.4 |
| | 92 | 5.18 | 63.93 | 122 | 265.93 | 652 |
| Maharashtra | 1971-72 | 6.44 | 56.3 | 109.8 | 230 | 602.5 |
| | 82 | 10.30 | 48 | 94 | 205.8 | 521.9 |
| | 92 | 15.25 | 62.43 | 121.08 | 259.6 | 509.7 |
| Orissa | 1971-72 | 28.22 | 140.9 | 261 | 552.6 | 1365 |
| | 82 | 31.26 | 101.4 | 185.7 | 386.4 | 1712.3 |
| | 92 | 36.77 | 123.87 | 232.5 | 476.47 | 1233.3 |
| Punjab | 1971-72 | 2.44 | 92.4 | 183 | 364.8 | 902.7 |
| | 82 | 6.62 | 85.9 | 155.8 | 324.2 | 789.5 |
| | 92 | 3.48 | 93.86 | 192.09 | 412.2 | 929.4 |
| Rajasthan | 1971-72 | 7.85 | 33.2 | 62.3 | 143 | 438.2 |
| | 82 | 11.60 | 40 | 77.3 | 162.3 | 485.1 |
| | 92 | 13.99 | 47.24 | 92.97 | 198.68 | 530.99 |
| Tamil Nadu | 1971-72 | 28.57 | 184 | 357.8 | 759.6 | 1853 |
| | 82 | 31.33 | 160 | 306.4 | 2048.5 | 1728.6 |
| | 92 | 72.07 | 199.29 | 374.24 | 733.3 | 1888.9 |
| Uttar Pradesh | 1971-72 | 25.42 | 124.2 | 236.5 | 492 | 1148.98 |
| | 82 | 31.27 | 113.4 | 224.6 | 449.4 | 1256.6 |
| | 92 | 51.98 | 142.16 | 268.37 | 587.1 | 1433.3 |
| West Bengal | 1971-72 | 33.84 | 183.5 | 346.9 | 708.3 | 1280 |
| | 82 | 39.38 | 181.7 | 350 | 682 | 2320 |
| | 92 | 51.30 | 143.2 | 656 | 722 | |
| All India | 1971-72 | 15.37 | 90.7 | 174.7 | 375.3 | 1019.2 |
| | 82 | 20.54 | 85.9 | 165.5 | 352.6 | 963.5 |
| | 92 | 24.80 | 105.1 | 200.83 | 432.79 | 1169.23 |

Source: Various issues of N.S.S. reports on land holdings (1971-72, 1981-82 and 1991-92).

CONCENTRATION OF OPERATIONAL LANDHOLDINGS IN INDIA:1971-72

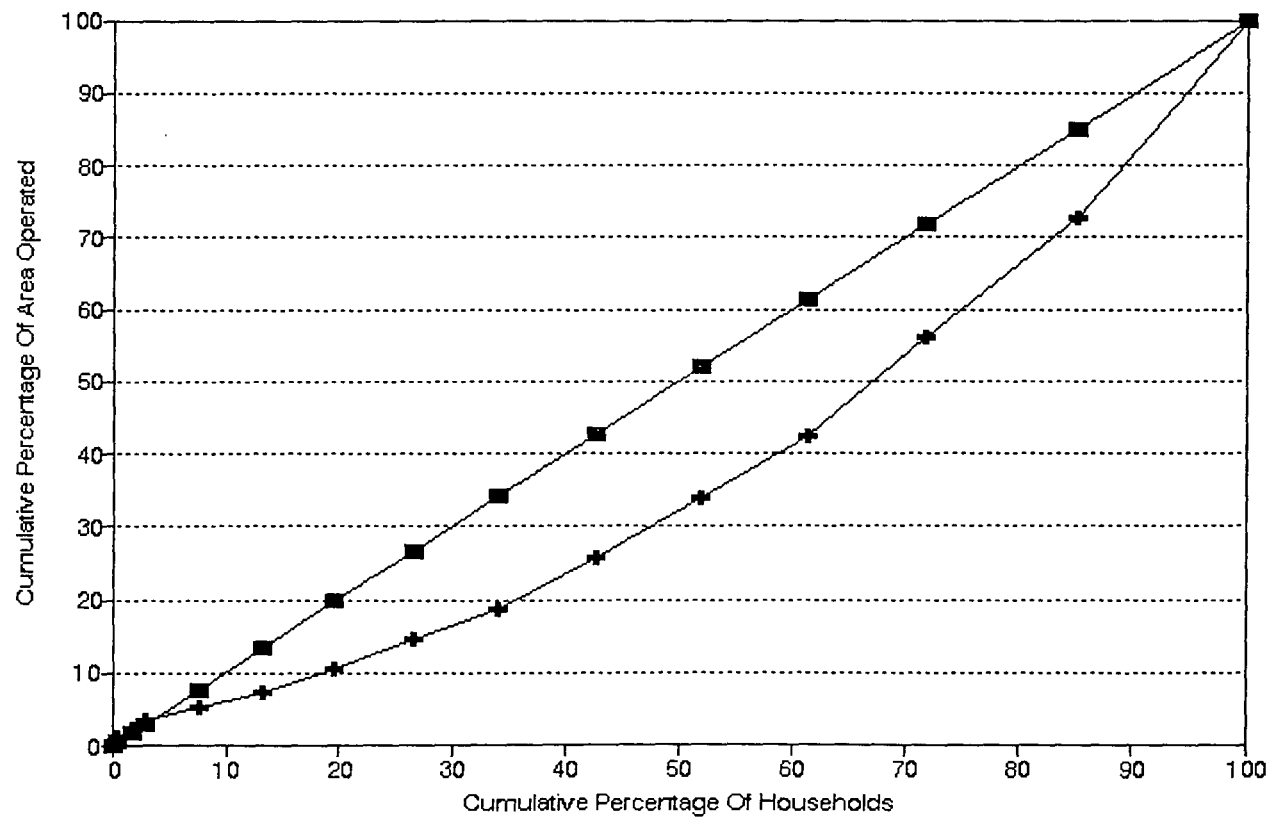


FIG 2.7

CONCENTRATION OF OPERATIONAL LAND HOLDINGS IN INDIA: 1981-82

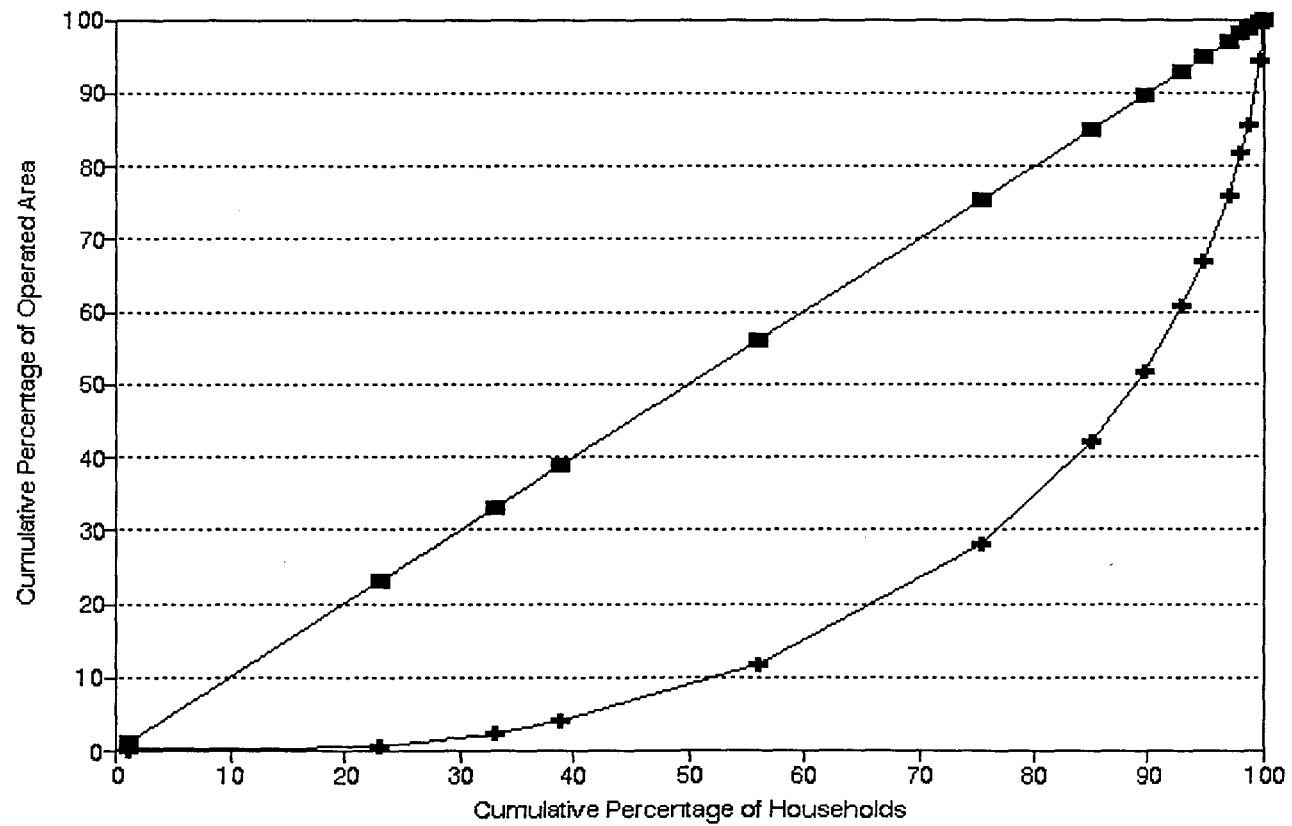


FIG 2.8

CONCENTRATION OF OPERATIONAL HOLDINGS IN INDIA: 1991-92

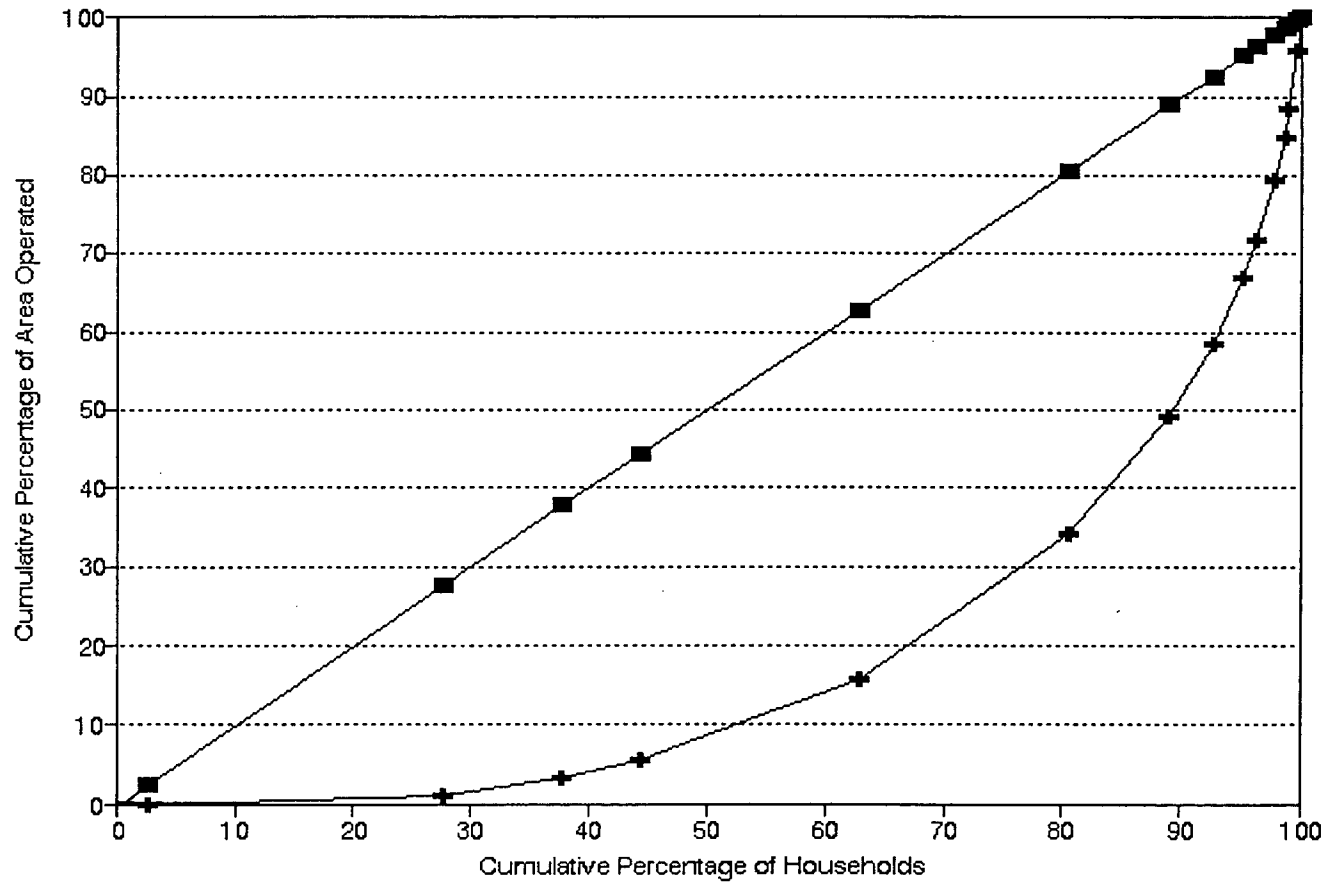


FIG 2.9

Haryana. In these states due to the use of package technology small and marginal farmers are continuously got marginalized. In other some states land reform has not taken place properly so they have ICCs value less than hundred for small class these states are Rajasthan, Gujarat, Karnataka, Maharashtra and Madhya Pradesh. In all these state larger proportion of area under holdings comes under large size class. Thus it is obvious that in most of the states, share of land under marginal and small size is lower than its share under the condition of equal distribution of land and large size class has high proportion of land than its share.

2.8 LORENZ CURVES

The vertical distance between the line of equal distribution and the Lorenz curve is more during nineties and eighties as compared to seventies. It implies that there are more inequalities in the distribution of operational holdings at present as compared to seventies (Fig 2.7, 2.8 and 2.9).

CHAPTER 3

HISTORICAL PERSPECTIVES OF LAND REFORMS IN BIHAR

This chapter deals with various components of land reforms programme carried out in Bihar with consideration of land system in pre-independent India.

3.1 SYSTEMS OF LAND TENURE IN PRE-INDEPENDENT INDIA

At the time of independence, there were three types of land tenure systems prevailing in the country – the zamindari system the mahalwari system and the ryotwari system. The basic difference in these systems were regarding the mode of payment of land revenue. In the Zamindari system, the land revenue was collected from the farmers by the zamindars; in the mahalwari system by the village headman on behalf of the whole village; while in the ryotwari system the land revenue was paid to the state directly by the farmers. In all the three systems the usual practice adopted was to get the land cultivated by the tenants.

3.1a. Zamindari System

This system was created by the East India Company when in 1793, Lord Cornwallis entered into “permanent settlement” with land lords with a view to increasing the revenue of the company. Under the settlement, the land lords (Known as Zamindars) were declared full proprietors of large areas of land. In return the task of collecting rent from the farmers was entrusted to them. Thus the Zamindars were to function as intermediaries between the cultivators and the state. The share of the government in total rent collected by the Zamindars was kept at 10/11th the balance going to the zamindars as remuneration. At the time of independence, this system was

prevalent in West Bengal, Bihar, Orissa, Uttar Pradesh, Andhra Pradesh and Madhya Pradesh.

The zamindari system suffered from a number of defects. It created a unique agrarian structure in the country side which conferred the right of sharing the produce of land without participating personally in the productive processes. The system itself was based on exploitation as it conferred unlimited rights on the Zamindars to extract as much rent as they wished.

3.1b. Mahalwari System

This system was introduced by William Bentinck in Agara and Oudh. It was later expended to Madhya Pradesh and Punjab. In this system, the whole village was treated as a unit as far as payment of land revenue is concerned. The responsibility for collecting land revenue and depositing it in the treasury was of the village headman. According to the Congress Land Reforms Committee the ownership of land under this system was collective.

3.1c. Rayotwari System

Under this system the responsibility of paying land revenue to the government was of the cultivator himself and there was no intermediary between him and the State. The rayot had full rights regarding sale, transfer and leasing of land and could not be evicted from the land as long as he paid the land revenue. The settlement of land revenue under the rayotwari system was done on a temporary basis.

3.2 LAND REFORMS IN BIHAR

After independence, Bihar was the first state in the country which initiated measures for land reforms. It was the first state to abolish the system of zamindari. Thereafter it went ahead with tenancy reforms which included the imposition of land ceiling and the consolidation of holdings.

3.2a. Zamindari Abolition Act in Bihar

Legislation to abolish the Zamindari system was first introduced in Bihar in 1947 (enacted later on as the Bihar Zamindari Abolition Act, 1948). But it was felt that Act did not make adequate provisions for land reform. A more comprehensive bill, namely, the Bihar Land Reform Bill, 1949 was passed and received the consent of the President of India (notified as the Bihar Land Reforms Act, 1950). The constitutional validity of the Act was challenged by the Zamindars, but the Supreme Court finally upheld its validity in 1952.

The Bihar Land Reforms Act, 1950, thus, abolished the zamindari system. It provided for the transference to the state of the right of zamindars for rent collection from agriculture as well as any interest in trees, forests, fisheries, falkars, ferries, hats and bazaars, mines and minerals. At the time of zamindari abolition in Bihar, there were 2,05,977 revenue paying permanently settled estates, representing 90% of the total area of the state.

3.2b. Implementation of the Act

The Act did not, however, bring under-rayots, the actual cultivators of land in contact with the state since it allowed ex-landlords to retain land in their 'Khas

possession' through claiming personal cultivation. This means that the Zamindars acquired the status of "occupancy tenants" of the state, and were allowed to retain their homestead and private lands often by ejecting the non-occupancy tenants and tenants at will on these lands. The blanket provision was also not in consonance with the national guidelines which indicated that zamindars could resume land only up to three times the economic holding. An economic holding or a family holding implied a holding which affords a reasonable standard of living to the cultivators and provides full employment to a family of normal size and at least a pair of bullocks.

Compensation for the acquisition of interests of the Zamindars/intermediars was further provided for in graded slabs as multiples of net income. Thus, an ex-zamindar with a net income of only Rs. 500 or below got compensation at the rate of twenty times his income, while those with a net income, while those with a net income of Rs. 100,001 and above got three times the income. The ex-landlords thus issued a large number of antedated hukumnamas, supported by rent receipts to interested people in a number of cases with a view of claiming higher compensation for land which they never cultivated. These included even the gair mazarua khas, gair mazarua aam lands which would have otherwise vested in the state.

3.2c. Achievement of the Zamindari Abolition Act in the State

The abolition of intermediaries was undertaken in phases. In the first phase, all the intermediaries having a gross annual income exceeding Rs. 50,000 were abolished and in the second phase, September 1952, all intermediary interests. Interest in the districts of Gaya, Hazaribagh, Palamu and Darbhanga were abolished. In the third phase (1953-54) all intermediary interests up to Rs. 50,000 in the remaining districts

were abolished. The processes of acquisition of intermediary interests in the state was completed by 1956.

One of the achievement of the abolition of the intermediaries was that the multiplicity of tenures was completely reduced, the tenants acquired the right of ownership, and the cultivators came into direct relationship with the government.

3.2d. Evaluation of the Zamindari Abolition Act

Bihar was the first state of the Indian union to enact a land reforms law. The first amendment of the Indian constitution was enacted to validate the Bihar land reform bill. Despite this head start, Bihars performance even in the matter of abolition of intermediary interests was unsatisfactory. Apart from collecting large amount of compensation, the Zamindars particularly the big ones, succeeded in retaining and extending possession over large areas of agricultural land, by restoring to large scale eviction of tenants, under-tenants and share-croppers. With the abolition of intermediary interests the ownership of land became more-broad-based and the erstwhile occupancy rayots acquired a higher social status. The benefits accrued largely to the upper and layers of the rural society. The marginal peasants, sharecroppers and landless labourers who constitute the bulk of the rural population derived hardly any benefit from the abolition of intermediary interests.

3.3 TENANCY REFORMS IN BIHAR

The tenancy reform refers to the principle of – “Land to the tiller”. This principle emphasise on guaranteeing the occupancy right over land to those who are the actual tiller of the soil. This intention was to make actual cultivator the owner of

the land. In this way tenancy reforms centers around three major areas of the agrarian structure.

- (1) Security of tenures.
- (2) Conferment of right of ownership on tenants.
- (3) Regulation of rent.

On account of the divergent social conditions prevailing in the South Bihar and North Bihar three types of Tenancy act has been taken.

- (1) Bihar Tenancy Act 1885.
- (2) Chotanagpur Tenancy Act 1908.
- (3) Santhal pargana Tenancy Act (Supplementary provision) 1949.

After the Zamindari abolition act three types of tenants has come in Bihar these are:

Occupancy Rayots: Such Category of people are also called settled rayots. The Act provides that person who holds any land situated in a village for twelve years, either himself or inheritance becomes settled rayot of the village.¹

An occupancy rayot is entitled under the provisions of the Tenancy Act 1885 to use lands in any manner which does not materially impair the value of the land as render it unfit for the purpose of tenancy.² An occupancy rayot is required to pay rent

¹ The Bihar Tenancy Act 1885, Legislative Department (Government of Bihar) Patna, 1975, Clause 20 and 21.

² Ibid., Clause 23.

to the landlord for his holding at fair and equitable rates.³ The rent is to be paid in cash or kind or partly in cash and partly in kind. When the rent is payable in kind in part or whole, it might be commuted to entirely money rent on application of the rayot or the landlord. An occupancy rayot cannot be ejected by his landlords from his holding except in execution of a decree for ejection passed on various grounds.⁴

- (1) That he has used the land comprised in his holding in manner which renders it unfit for the purpose of the tenancy or
- (2) That he has broken a condition on breach of which he is under the terms of contract between himself and his landlords, liable to be ejected.

Non-Occupancy Rayot: When a non-occupancy rayot is admitted to the occupation of land, he becomes liable to pay such rent as may be agreed upon between himself and his landlord at the time of admission.⁵ Under the provision of Tenancy Act of 1885, the rent of a non-occupancy rayot cannot be enhanced except by registered agreement or through court.⁶ The Act provides some safeguards to a non-occupancy rayot against his eviction by his landlord. The Act provides that a non-occupancy rayot is liable to be ejected on one or more of the following grounds and not otherwise.⁷

- (1) On the grounds that he failed to pay arrears of rent.
- (2) On the grounds that he used the land in a manner which renders it unfit for the purpose of tenancy or that he has broken the condition on which he is under the terms of a contract between himself and his landlord to be ejected.

³ Ibid., Clause 24.

⁴ Ibid., Clause 25.

⁵ Ibid., Clause 42.

⁶ Ibid., Clause 43.

⁷ Ibid., Clause 44.

- (3) Where he has been admitted to occupation of the land under a registered lease on the ground that there term of the lease has expired.

Under Rayot: The Bihar Tenancy Act 1885, recognise the under rayots and the rates recoverable from them by the landlord have been limited. The landlord of an under rayot holding at money rent is not entitled to recover rent exceeding the rent which he himself pays, by more than the following percentage of the same namely:

- (1) When the rent payable by the under rayot is payable under a registered lease or agreement fifty percent and
- (2) In any other case twenty percent.

Prior to the amendment in the Tenancy Act of 1885 in the year 1955, there was no provision to fix the limit to produce rent to be paid by an under rayot to his immediate landlord, which proved a source of considerable hardship for the under rayot. But the amendment in 1955 held that when under rayot paid for the land held by him rent in kind by division of the produce, the landlord is not entitled to recover rent from the under rayots exceeding seven twentieth of the produce.

3.3a. Tenancy (Amendment) Act 1955

It is also known as Bataidari Act. As per the original Tenancy Act 1885, and under rayot, ejected by his landlord from the land held by him had no option other than to go to the civil court. But as they were mostly economically depressed, they were not in a position to meet the heavy expenses of a litigation in a civil court.

The Bataidari were further disadvantageous due to the fact that landlords did not either execute any written lease in their favour or grant any receipt in favour of

under rayots with the result that the former does not have any documentary proof to support their case in a law court. The Bihar Tenancy Amendment Act 1955 tried to protect the sharecroppers by providing for:

- (1) Reduction in the share of produce, payable by a rayot in kind rent to his landlord from nine-twentieth to five-twentieth of the produce.⁸
- (2) Fixation of seven-twentieth as the maximum share in produce, realisable from an under rayot on rent in kind by his landlord,⁹
- (3) Empowering the collector to take action for restoration of unlawfully ejected under rayots to their lands since February 1, 1953.¹⁰

So the Amendment Act 1955 fixed the maximum produce rent that could be realised from under rayot. The Act provided that the landlord of an under-rayot would not be entitled to any share in the straw or Bhoosa as rent out of the produce of such land. The Act empowered the collector to take action either on their own initiative or application for restoration of possession to under rayots, ejected unlawfully from their lands since February 1, 1953.

3.3b. The Bihar Tenancy (Amendment) Act 1970

The Amendment Act of 1970 amended section 48C of the Bihar Tenancy Act of 1885. Under the original provisions of the Act, an under rayot was entitled to acquire occupancy right on such lands which he held continuously as an under rayot for a period of twelve years.¹¹ This provision of the Act did not exclude any land owner and occupancy rights could accure to under rayot on all lands, whether such

⁸ Ibid., Clause 178 B, as substituted by Bihar Tenancy (2nd Amendment) Act 1955.

⁹ Ibid., Clause 48 A.

¹⁰ Ibid., Clause 48 B.

¹¹ Ibid., Section 48C.

lands belonged to big land-owners or small ones. So the Amendment of 1970 extended protection to small land owners and held that no occupancy right would accrue to an under rayot unless the land owner hold.

- (a) At least five acres of land irrigated by flow irrigation, lift irrigation, or tube wells, whether such irrigation facilities are owned, constructed, maintained or improved by the Government or were owned and maintained by the landlord or,
- (b) Ten acres of other land.¹²

The Amendment provided additional protection to land owner who could be classified as widows, persons suffering from mental or physical disability or persons in the army, navy and air force of the Indian Union.¹³

The amendment of 1970 tried to safeguard the interest of under rayot and under tenures. The Amending Act has empowered the collector to take cognisance even to the threatened eviction of sharecroppers. The Act provided great relief to small land owners, who were under a constant fear of losing the occupancy right over lands, leased even temporarily under some pressing circumstances.

But only the Zamindari abolition or tenancy reforms measure were not adequate to grant justice to the rural poor. Many lacune still remained in the tenancy laws and did not seem to be effective for the upliftment of the rural poor. An immediate problem was a lot of concentration of land in few hands in rural areas.

¹² Ibid., Clause 48C, substituted by section 2 of the Bihar Tenancy (Amendment) Act 1970 (Bihar Act 8 of the 1970) for the original provisions.

¹³ Ibid., Sub Clause (ii), Clause 48C.

3.3c. Chotanagpur Tenancy Act

Since the agrarian situation in the plateau region have been different, the tenancy reforms there acquired a different character. Accordingly sub-leasing was not permitted in the Santhal Pargana which were introduced originally in the wake of Santhal Tribal Revolts of 1855-56. And, even inspite of that a lease was made, the tenant was liable to ejection. The Chotanagpur Tenancy Act 1908 on the other hand, included the following main provisions:

- (1) A lease by a ryot was valid only if it was for a period not exceeding 5 years.
- (2) An occupancy ryot who was a member of the Scheduled Caste or a backward class could lease his land to another person belonging to the same community and residing in the same district but he had to obtain the prior permission of the Deputy Commissioner.
- (3) Security of tenure was not provided for nor any provision was made for fixing of air rents.

Both the Chotanagpur Tenancy Act and Santhal Pargana Tenancy Act were subsequently strengthened by the enactment of the presidents Act 1969 which provided the following:

- (a) Presentation of further alienation of lands belonging to the members of scheduled tribes to the non-tribals.
- (b) Restricting possession where transfer has been effected.

- (c) Member of the Scheduled Tribes are entitled to transfer land in genuine cases, particularly to enable them to obtain institutional credit for agricultural development programme.

3.3d. Implementation of Tenancy Reforms Act

The amendments were made on paper year after year to secure a better position for the sharecroppers and under rayots, but in the practise no change has occurred in the occupancy rights of the under rayot. "Land to the tiller", still remains a far cry in the village and large portions of land are still held by big landlords, who in turn lend their land for cultivation to the sharecroppers and under rayots. Leave aside the provisions to hold the land which a man cultivates, even other benefits that have been provided to under rayots and sharecroppers under tenancy laws are still not in practice in the state.

The basic causes for the failure of tenancy reforms may be attributed to the fact that though legislations for protective and ameliorative privileges were enacted but no necessary conditions for their implementation have been created. It was essential that those who are to be benefited must be made aware of laws offering such benefits. It should have been the duty of the government to make sharecroppers and under rayots familiar with the provisions of the Acts. But there was complete absence on the part of the government to educate the beneficiaries who were most unaware of provisions of the Tenancy Acts. Further, socio-economic weakness of the sharecroppers and under tenants also became a hurdle for the proper implementation of tenancy laws.

3.4 LAND CEILING AND LAND DISTRIBUTION ACT

Fixation of ceiling on agricultural holdings was taken up predominantly as a redistributive measure. The basic idea behind imposition of ceiling on land holdings was to retain land in such a way, above a certain maximum limit, that the surplus land is taken away from the present holders and is distributed to the landless or small holders in accordance with certain priorities.

It is obvious that “Surplus land” could be acquired through legislation on ceiling in regard to the size of holdings per family. The bill proposing to impose ceiling on surplus land was introduced in Bihar Legislature in 1955. The bill was referred to a select committee of both the houses and their recommendation were received in 1957. The bill was then referred to the Bihar land commission, set up under Section 34 of the Zamindari Abolition Act to advise the state Governments on agrarian matters. The bill, which was finally passed by the legislature in 1959, received the Presidents assent in 1962.

The intervening period was sufficient for the intelligent land holders to transfer land during this period. The Act of 1961 imposed ceiling taking the individual as a unit. It suggested a ceiling of 20,30,40,50 and 60 acres of land on each individual. It also allowed exemptions for education and health purposes, trusts and other charitable institutions, and public or private plantations etc. In a broader way in the clause of the Act, ceilings were fixed on the following basis:

- (a) Twenty acres of land irrigated by flow irrigation work, constructed or maintained, improved or controlled by the central or the state Government or by a body corporate constituted under any law.

- (b) Thirty acres of land irrigated by lift irrigation work or tube-well constructed or maintained by the central or the State Government or by a body corporate constituted under any law.
- (c) Forty acres of land which is orchard or used for any other horticultural purposes or any land other than land referred to in clauses (a), (b), (d) and (e).
- (d) Fifty acres of Diaraland.
- (e) Sixty acres of hilly, sandy, surplus homestead land none of which yield paddy, rabi or cash crops.

3.4a. Shortcomings of the Land Ceiling Act 1961

The provision of Land Ceiling Act were kept sufficiently mild. Most of the landlords escaped from its application. It can be seen from the following:

- (1) The Act recognised the individual land holder instead of a family as a unit for fixation of ceiling area.
- (2) Each land holder holding land in excess of ceiling area was allowed to transfer portions of his land to sons, daughters and other relatives within one year of the commencement of the Act. This opened the floodgates of fictitious family divisions, benami transfers and other manipulations to circumvent the provisions of the Act.
- (3) The Act allowed the individual land holder to possess up to ten acres of homestead and fifteen acres of orchard land in addition to a liberally fixed ceiling area. This meant that he or she could hold up to forty-five acres of all categories of land including twenty acres of Class I land. As such a family

consisting of five land holders were entitled under this Act to hold 225 acres of land.

- (4) The Act permitted land holders to resume land for personal cultivation from non-occupancy under rayots. This gave the land holder a virtual mandate for evicting sharecroppers who had been cultivating their lands for decades. This continued to happen throughout the sixties.

3.4b. Provisions of Fixation of ceiling Area and Acquisition of Surplus Land Act, 1971

The act of 1961 could not enable the government to acquire much land, so another act (modified version of 1961) came in to existence in December 1971 which reduced the ceiling limit substantially. This act was further modified in 1972 and 1973. The Act of 1971 was modified by Chief Ministers conference in July 1972 for ceiling on agricultural land in which the following decisions were taken:

- (1) Ceiling on the best category of land with assured irrigation and capable of yielding two crops should not exceed to 10, 18 acres taking into account fertility of land and other conditions.
- (2) Ceiling on land having private irrigation facilities should be worked out by equating 1.25 acres of land, with 1 acres of the best category of land, provided, it does not exceed 18 acres. The irrigation from the private source being defined to mean irrigation from tube-well or lift irrigation from a perennial water source operated by diesel or electric power.

- (3) In case of land having assured irrigation for one crop only the ceiling was not to exceed 27 acres and for other types of land it was not to exceed 54 acres of land.

This act was better than the Act of 1962 in following respects:

- (1) Instead of taking the land holder as unit for ceiling purposes, the Act of 1972 considered a family consisting of a person, his or her spouse, and up to three minor children i.e. below, 18 year as the unit. Every additional child was entitled to an additional area equivalent to one-tenth of the ceiling limit provided that the aggregate of the land permissible to be held by a family, will in no case be allowed to exceed 150 percent of the area permissible to a standard unit of a couple with three children.
- (2) The ceiling areas were cut down to 15, 18, 25, 30, 37.5 and 45 acres of land falling in Class I, II, III, IV, V and VI respectively as defined in the contrast of the 20, 30, 40, 50, 60 acres of the five categories of land defined in the earlier act.
- (3) The landholders were no longer allowed to retain homestead or orchard lands on lands over and above the ceiling limits.
- (4) The collectors were empowered to inquire into cases of transfer of land by a land holder made after 22 October 1959 with a view of defeating the provisions of the Act (including benami and farzi transfers) and declared them as void.

- (5) The new act laid down clear guidelines for settlement of surplus land. The collector was empowered to settle such lands with the given classes of persons in the specified order of priority:
- (a) Landless persons belonging to SC, ST and OBC who are resident of the same village in which the land is situated;
 - (b) Persons belonging to SC, ST and OBC who are residents of the same village and who own not more than one acre of class III land or its equivalent.
 - (c) Other landless persons of the same village.
 - (d) Other persons of the same village not having more than one acre of class I land or its equivalent.
 - (e) Persons serving in the Armed Forces or with families of such persons killed in action, and;
 - (f) Ex-serviceman residents of the same village.

3.4c. Progress in Implementation of Land Ceiling After 1972

Up to June 1975, Act of 1961 yielded a paltry 11000 acres of surplus land. After the extensive amendments in 1972 and in 1973 the government launched a special drive for implementation of land reforms and declared 1973-74 as the land reforms year. Revenue officials were instructed to prepare and maintain registers containing name of big land lords and list of suspected, farzi or benami transaction so that inquiries could be instituted. After sending some notices to big land holders the Revenue Minister claimed in the Legislative Assembly that the Amendment act of

1972 would make available 18 lakh acres of surplus land. As against this the achievement in respect of acquisition was only 2.36 lakh acres till July 1979. The largest number of acres of surplus land were acquired in the districts of Purnea, Katihar, West Champaran, Saharsa, Bhagalpur, Monghyr, Ranchi and East Champaran. On the other hand very low quantity land was acquired in the districts of Dhanbad, Nalanda, Giridih, Singhbhum, Santhal parganas, Saran and Nawada.

The position as on 15 March 1989 according to the Bihar government Revenue Department was as follows:

| | |
|---------------------------------|-----------------|
| Land acquired | 3.69 lakh acres |
| Land distributed | 2.49 lakh acres |
| Land under dispute | 0.91 lakh acres |
| Land available for distribution | 9.285 acres |

3.4d. Weakness in implementation of Land Ceiling Act

- (1) The implementation of the 1961 Land Ceiling Act was very weak, and was infact almost a non-starter. There were a lots of loopholes in the act which gave enormous latitude to landholders to transfer lands under benami holdings and circumvent land ceiling provisions.
- (2) The Act of 1962 as amended in 1972 was much better than the act of 1962 in that it plugged the loopholes and reduced the limit of land ceiling, yet the success in implementation was very limited. Till March 15 1989, only 3.69 lakh areas of land could be acquired, and even out of this, 91,058 acres were either under the dispute or under stay order from the court of appeal.

- (3) The districts of Purnea, Katihar, East Champaran and West Champaran are the most important ones as regards land concentrations and reveal the ineffectiveness in implementation of land ceiling laws in the state.
- (4) One of the examples of ineffectiveness is that total lands officially assumed surplus, 23 percent of the lands were released to the landowners on various grounds. The grounds on which the lands were released were not very sound.
- (5) The case of some big landlords whose lands range from 500 acres to over 10,000 acres are still to be decided. Most from this many big landlords are escaping the ceiling net due to lack or rigorous identification of concealed lands.
- (6) The inadequate upkeep of land records and their updation; is one of the factors that has severely hindered implementation of land ceiling measures.

3.4e. Tips for effective implementation of Land Ceiling Programme

- (1) The case laying under dispute needs to be disposed of urgently so that land can be distributed among the landless.
- (2) Ensuring physical possession of the allotted lands to the beneficiaries of the weaker section needs to be given top priority, and if necessary, the police force should be used to dispose illegal occupants.
- (3) The allottees need to be strongly integrated with the institutional lending agencies and rural development programmes so that their holdings become economically viable and they can be lifted above the poverty line. So the role of NGO is an important thing for that.

- (4) The six fold classification of land should be reduced to less variety.
- (5) Urgent attention should be given to the proper maintenance and updation of land records as it is the main cause responsible for the failures in implementation. So steady computerization should be given attention.
- (6) Special tribunals need to be constituted for disposing of cases pending under litigation within a limited time frame.
- (7) The potential of the role of local committees consisting of rural landless and agricultural labourers needs to be recognized. In addition increasing awareness and mounting pressure on the rural rich, they can act as valuable sources of information regarding land held by a land holder, his genealogy, farzi and benami transfers and wrong classification of the land held by him.
- (8) The ceiling and other land reform laws should be translated simply into local language by both the government and political parties and distributed. It will make more aware to rural poor.

3.5 CONSOLIDATION OF HOLDINGS

With the object of effecting consolidation of holding for the purpose of better cultivation of land, the Bihar consolidation of Holding and Prevention of Fragmentation Act was passed in 1956 which extends to the whole state. It enables, the government to promote the consolidation of holdings in any area or region of the state. The act established an elaborate procedure by means of which consolidation is to be effected.

The major provisions of this act were –

- (1) During the date of the publication of the notification, no person is allowed to transfer or partition any land in such area except with the special permission of the consolidation officer. But consolidation officer may refuse to give any such permission on various grounds –
 - (i) If the prescribed particulars have not been submitted.
 - (ii) If the transfer or partition is likely to interfere with the consolidation proceedings or to create a fragment.
 - (iii) If the transfer of partition is against any provision of this Act or any provisions of the tenancy law for the time being in force in the notified area.
- (2) Constitution of Village Advisory Committees – The Act provides for the constitution of village advisory committees by the consolidation officer. Such advisory committees shall have member of the executive committee of the village panchayat.
- (3) Preparation of up to date record of rights – as per the provisions of the Act was to be prepared soon after the publication of the notification. After publication of the record of rights, it was required to prepare a register of lands belonging to rayots. Some other phenomenon of this act were – preparation of draft scheme for the consolidation of holdings, issue of a certificate to rayots as proof of title, loans to assist consolidations, transfer of consolidation of holding and others.

3.5a. Implementation of consolidation of land holdings

In order to seek speedy implementation of consolidation programme in Bihar, some important amendments were made in the Bihar Consolidation of Holdings and Prevention of Fragmentation Act in 1974 directed towards improving the administrative set-up and removing some weakness in the old Act. But due to the limited financial resources government was unable to finish this work. Even the people were not ready to give their ancestral land to others and accept others land to facilitate consolidation, because of their sentimental attachment with such lands.

CHAPTER 4

CONCENTRATION OF LAND HOLDINGS ACCORDING TO SIZE CLASS: A DISTRICT LEVEL ANALYSIS IN BIHAR

Bihar is characterized by inequality in land distribution. A large number of holdings constitute small area, while a small number of holdings have large sizes. In 1980-81 the number of operational holdings in the state was 112,29,602 as against 75,77,251 in 1970-71 recording an increase of 48.2 percent, while there was 3.6 percent decline in area in 1980-81 over 1970-71. As a consequence the average size of holdings in the state has declined from 1.52 hectare in 1970-71 to 0.99 hectare in 1980-81.

There is a slight difference in the value of Gini's co-efficient which has changed from 0.610 in 1970-71 to 0.557 in 1980-81. It shows that concentration of land holdings has marginally decreased during the decade. Roughly 90 percent of operational holdings accounted for 50 percent of the operated area for both the periods. The holding size up to small size class shows some improvement but larger holdings do not show any remarkable change. This is an indication of failure of land reform measures in Bihar.

4.1 PATTERNS OF OPERATIONAL HOLDINGS IN BIHAR

(1) *Marginal Holdings:*

In 1970-71, number of operational holdings accounted for 64.3 percent in the marginal holding size while area accounted for 16.1 percent. In 1980-81 the share of numbers increased to 75.3 percent while area accounted for 26.7 percent. The change

in the number and area for this period is 74.87 percent and 60 percent respectively. The I.C.C.R. value for 1980-81 was 35.3 as against 24.98 in 1970-71. It means that marginal group of holdings for both the periods held less than its share. But its share has increased over the time period.

(2) *Small Holdings:*

In 1970-71, 14.7 percent of operational holdings, with 13.6 percent area with average size of 1.4 hectare/household was under small group of holdings. In 1980-81, the number of operational holdings rose by 9.8 percent where as the area increased by 5.4 percent. Average size of holdings decreased to 1.35 hectares/household, from 1.41 hectares/household in 1970-71. The I.C.C.R. value for this size group is 93 in 1970-71, which has increased to 137.27 in 1980-81. It shows that in this size group there is an increase in operated area vis-à-vis other size groups which has become greater than 100. It means it has higher proportion of land under the condition of equal distribution.

(3) *Semi-medium Holdings:*

Number of holdings in semi-medium size-class was 951000 in 1980-81, as against 915,000 in 1970-71, thereby showing an increase of 3.9 percent. The percentage share was 8.7 percent and 12 percent respectively in 1970-71 and 1980-81 respectively.

Area of operational holdings increased by 2.3 percent in 1980-81 over 1970-71. As a consequence the average size of holding declined from 2.77 in 1970-71 to 2.73 hectare/household in 1980-81. The I.C.C.R. value for this group is 182.98 in 1970-71, which has increased to 276.71 for 1980-81. It means, this size group has

more share of the land, under the condition of equal distribution, for both the time periods.

(4) *Medium Size Holdings:*

Both number and Area of operational holdings have decreased during 1970-71 and 1980-81. Number has decreased by 13.2 percent and area has declined by 14.7 percent. As a consequence average size of holding declined from 5.84 hectare/household in 1970-71 to 5.73 hectare/household in 1980-81. The I.C.C.R. value for this group is 385.52 in 1970-71, which has increased to 582.68 in 1980-81. It shows that this size class has higher share of land under the condition of equal distribution.

(5) *Large Size Holdings:*

Highest concentration of land is found under the large size class of holdings. In 1970-71 only 1.8 percent of operational holdings accounting for 20.6 percent of area. After a decade both number and area of operational holdings have declined. The decline in number has been by 0.6 percent and the decline under area has been to the tune of 17.1 percent. The change in number of operational holdings and operated area for the period 1970-71 to 1980-81 has decreased by 49.6 percent for number and 50.6 percent for area. The average size of holding has decreased slightly from 17.47 hectare/household in 1970-71 to 17.10 hectare/household in 1980-81. I.C.C.R. value is 1153.04 (1970-71) and 1735 (1980-81) which indicates that this size class has larger share of land than its share under the condition of equal distribution.

(6) *All Size Classes:*

The average size of holdings in Bihar has decreased from 1.52 hectare/household in 1970-71 to 0.99 hectare/household in 1980-81. This is due to the increasing population and fragmentation of land in all the size classes. This is an indication of dependence of majority of people upon primary sector, mainly in agriculture, which is indicative of the low development of the other sectors of the economy.

The Gini's co-efficient of land holding in Bihar was 0.612 in 1970-71 which has decreased to 0.557 in 1980-81, which reflects that the inequality in the distribution of land holding has declined in all the districts.

4.2 DISTRICT WISE DISTRIBUTION PATTERN OF LAND HOLDINGS IN BIHAR

Pattern of number, area and average size of holdings

All the five standard size classes have been combined into three major groups i.e. – Small size (Marginal and Small, <2 hectare), Medium Size (Semi medium and Medium, 2 to 10 hectare) Large size (>10 hectare) for the sake of convenience in analysis. The analysis reflects the concentration and diversification of holdings within a size group over the time period, (1970-71 to 1980-81) across the districts.

4.2.1a Distribution of Number of Operational Holdings under small-size (< 2 hectare)

The high concentration of number of operational holdings in small size groups is found in almost all the districts. Darbhanga, (90.1%), Samastipur, Vaisali,

Madhubani, Saran, and Begusarai (83.6%) showed high concentration for the year 1970-71. In 1980-81, the concentration pattern of small size was similar to the pattern of 1970-71, but its magnitude has changed a little, among the districts, as well as within this category itself, as the percentage of number of holdings within this group has increased to 90.71 percent in 1980-81, as against 83.61 percent in 1970-71. Highest concentration of holdings in this size class is found in Vaisali (96.3%) followed by Muzaffarpur, Gopalganj, Darbhanga, Sitamarshi, Saran, Madhubani, Samistipur, Begusarai and Nalanda (91.8%) for the period 1980-81 (Table 4.1, Fig 4.1 and 4.2).

The cause for the high concentration of number of holdings in these districts for both the time periods may be attributed to the fact that most of these districts are either the part of Ganga plain or Ganga-Soan doab, which is very fertile alluvial plain. This area has the dominance of rice cultivation since ancient times, which has attracted the people more and more due to the high carrying capacity of land. Rice cultivation is highly labour intensive and rice areas invariably have high proportion density. All the effects lead to the phenomenon of high population growth rate in these districts, which has resulted in the fragmentation of family holding to a greater degree. Lack of minerals and industrial activity are some of the factors for growth of population in the agricultural sector. Combined effect of all the above mentioned factors is the cause of growing number of operational holdings with high concentration in all of the above mentioned districts.

Medium concentration in number of operational holdings in small size class varies from 76.61 percent to 83.60 percent in 1970-71, which has increased to 82.52 to 90.70 in 1980-81. In 1970-71 East Champaran, Patna, Siwan, Munger, West

Table 4.1

BIHAR
Distribution of Number of Operational Holdings in Small Size Class
(In Percentage)
1970-71 & 1980-81

| No. of Operational Holdings (Small - Size) 1970-71 | | No. of Operational Holdings (Small - Size) 1980-81 | |
|--|---|--|--|
| Category | Districts | Category | Districts |
| LOW ≤ 76.60 | Ranchi Santhal Paragana Palamu Dhanbad Hazari Bagh Rohtas Giridih Purnia Singhbum Aurangabad | LOW ≤ 82.50 | Ranchi W.Champaran Santhal Paragana Singhbum Palamu Rohtas Giridih Hazari Bagh Dhanbad Aurangabad |
| MEDIUM $76.61 - 83.60$ | Saharsa Bhojpur Kathiar Bhagalpur Navada Gopalganj W.Champaran Munger Siwan Patna E.Champaran | MEDIUM $82.51 - 90.70$ | Kathiar Purnia Bhojpur Gaya Saharsa Bhagalpur Siwan Navada Munger E.Champaran Patna |
| HIGH ≥ 83.61 | Begusarai Gaya Nalanda Muzaffarpur Sitamarhi Saran Madhubani Vaisali Samastipur Darbanga | HIGH ≥ 90.71 | Nalanda Begusarai Samastipur Madhubani Saran Sitamarhi Darbanga Gopalganj Muzaffarpur Vaisali |

BIHAR
NUMBER OF OPERATIONAL HOLDINGS
(SMALL HOLDING SIZE)
1971

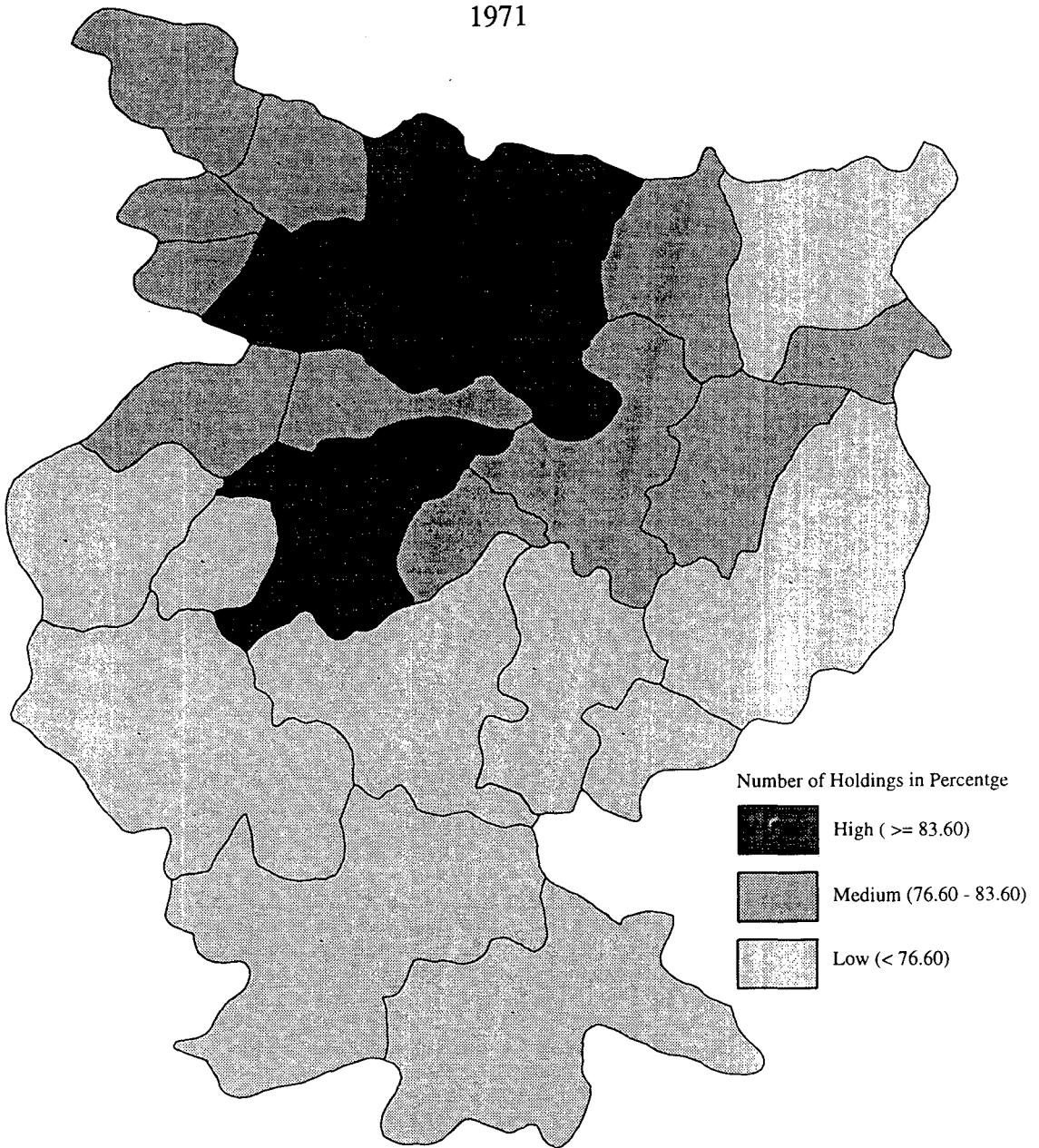


FIG 4.1

BIHAR
NUMBER OF OPERATIONAL HOLDINGS
(SMALL HOLDING SIZE)
1981

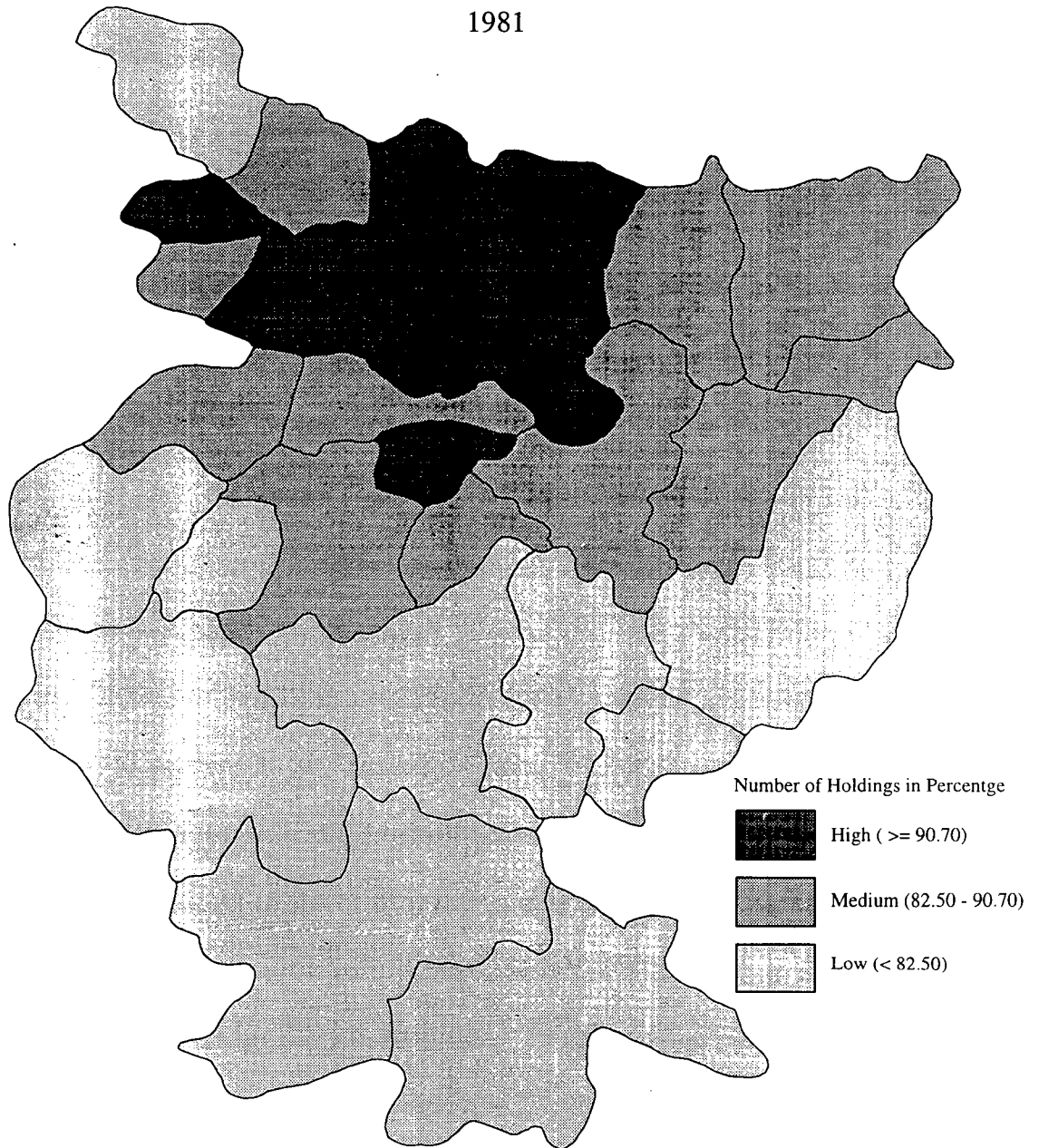


FIG 4.2

Champan, Gopalganj, Nawada, Bhagalpur, Katihar, Bhojpur and Saharsa (76.61%) were under this group, while in 1980-81. Patna followed by East Champaran, Munger, Nawada, Siwan, Bhagalpur, Saharsa, Gaya, Bhojpur, Purnia and Katihar (82.8%) belonged to this category. Most of these districts are larger in area and population pressure upon land is moderate due to development of some other activities-like small scale and cottage industries in Gaya, Patna and Bhagalpur, Gun and tobacco factory in Munger, providing employment in non-farm activities.

The districts which have recorded share lower than 76.60 percent of number of operational holdings are included in low distribution of operational holdings of small size for the year 1970-71, while those with values below 82.50 percent for 1980-81 were include in this size. In the year 1970-71, Aurangabad (76.6%) followed by Singhbhum, Purnia, Giridih, Rohtas, Hazaribagh, Dhanbad, Palamu, Santhal Pargana and Ranchi (57.3 %) were included under this group. In 1980-81 Aurangabad (82.5%), Dhanbad, Hazaribagh, Giridih, Rohtas, Palamu, Singhbhum Santhal Pargana, West Champaran and Ranchi (62.2%) were included in this group. The cause for low percentage of number of operational holdings in these districts may be attributed to the fact that most of these districts are in the southern part of the Bihar which is physiographically the plateau region, namely Chotanagar plateau. These hilly parts lack fertile soil, compared to the North Bihar Plain but this part is minerally rich and industrially developed. These districts are densely forested and are the tribal belt of Bihar, who depend on forest based activities.

4.2.1b. Distribution of operated area under small size (<2 hectare)

Operated area under small size class range between 12.8 percent (Ranchi) and 50.8 percent (Darbhanga) for the year 1970-71. In the year 1980-81 it is ranged

between 69.5 percent (Saran) and 25.7 percent (Singhbhum). Some of the districts like Darbhanga, Saran, Vaisali, Madhubani, Samastipur, Gopalganj have high percentage of operated area under small size class for both the periods. The reason for high concentration of area under small size group may be attributed to the fact that these are the districts of fertile alluvial land of Ganga plain, where land is very valuable asset for the people. This phenomenon has lead to the fragmentation of family holdings and these areas are thickly populated. Thus, the size of holding has got reduced and its consequence is in the form of high concentration of small holdings in these districts (Table 4.2, Fig 4.3 and 4.4).

Medium distribution of operated area under small size: In 1970-71 the range of percentage of operated area under medium distribution was 29.10 percent to 40.80 percent which has increased to 40.61 percent to 57.00 percent for 1980-81. It shows that area under medium size has witnessed increase. The districts like Patna, Muzaffarpur, Nawada, Sitamarhi, Begusarai, East Champaran, West Champaran, Aurangabad, Saharsa, Katihar, and Bhojpur fell under this category for 1970-71. In 1980-81 Begusarai, Nawada, Sitamarhi, Munger, Siwan, Gaya, East Champaran, Bhagalpur, West Champaran, Saharsa and Aurangabad were included under this group. These districts have medium level of development of industrial activity along with the moderate level of agricultural developments, while in some of these districts agriculture is the only source of livelihood.

Low Distribution of Operated Area under Small Size Class: This group comprises the districts like Munger (29%), Bhagalpur, Singhbhu, Giridih, Rohtas, Hazaribag, Dhanbad, Santhal Pargana, Purnia and Ranchi (12.8%) for the year 1970-71. Most of these districts are the part of low distributed area for the time period, 1980-81. These

Table 4.2

BIHAR

**Distribution of Area of Operational Holdings in Small Size Class
(InPercentage)
1970-71 & 1980-81**

| Area of Operational Holding (Small - Size) 1970-71 | | Area of Operational Holding (Small - Size) 1980-81 | |
|---|---|---|---|
| Category | Districts | Category | Districts |
| LOW ≤ 29.00 | Ranchi Purnia Santhal Paragana Dhanbad Hazari Bagh Rohtas Giridih Singhbum Bhagalpur Munger | LOW ≤ 40.60 | Singhbum Palamu Santhal Paragana Rohtas Hazari Bagh Dhanbad Kathiar Giridih Bhojpur Purnia |
| MEDIUM $29.10- 40.80$ | Bhojpur Kathiar Saharsa Aurangabad W.Champaran E.Champaran Begusarai Sitamarhi Navada Muzaffarpur Patna | MEDIUM $40.61- 57.80$ | Aurangabad Saharsa W.Champaran Bhagalpur E.Champaran Gaya Siwan Munger Sitamarhi Navada Begusarai |
| HIGH ≥ 40.81 | Gopalganj Siwan Gaya Nalanda Samastipur Madhubani Vaisali Saran Palamu Darbanga | HIGH ≥ 57.1 | Gopalganj Samastipur Patna Madhubani Darbanga Nalanda Ranchi Muzaffarpur Vaisali Saran |

BIHAR
AREA UNDER OPERATIONAL HOLDINGS
(SMALL HOLDING SIZE)
1971

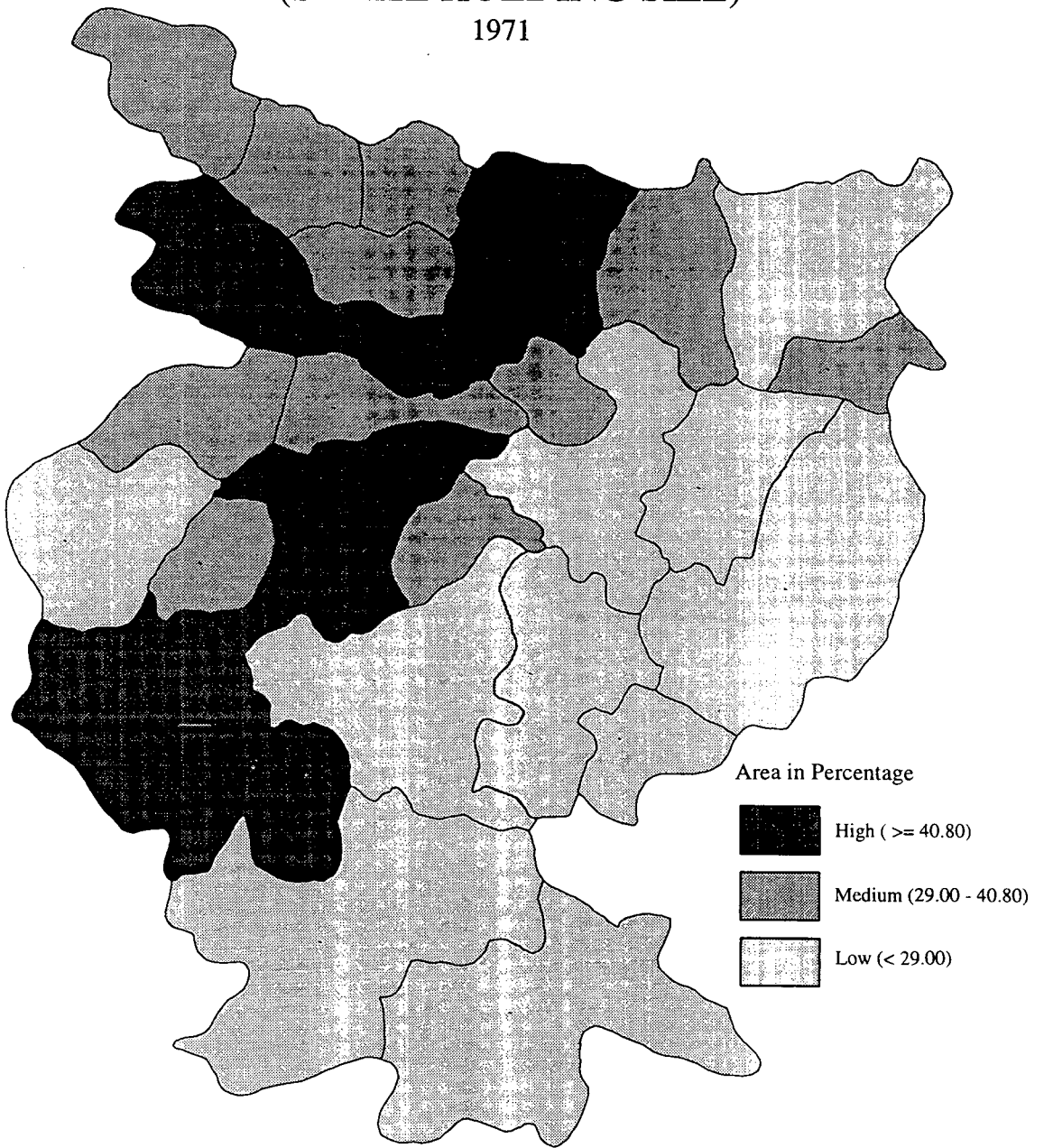


FIG 4.3

BIHAR
AREA UNDER OPERATIONAL HOLDINGS
(SMALL HOLDING SIZE)
1981

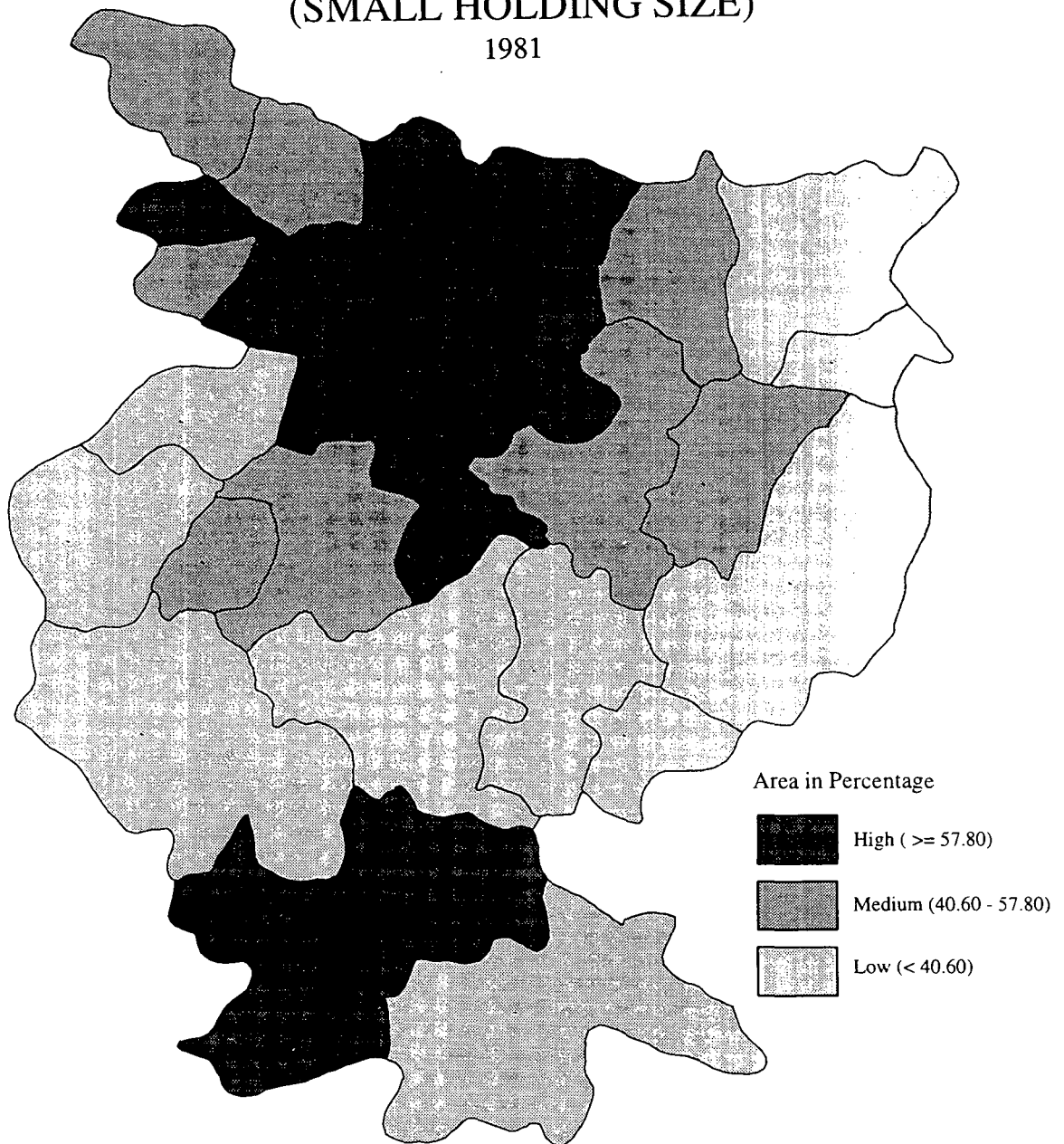


FIG 4.4

are Purnia, Bhojpur, Giridih, Katihar, Dhanbad, Hazaribag, Rohtas, Santhal Pargana, Palamu, Singhbhum and Ranchi. The reason for low percentage of area under this size class may be attributed to the fact that most of these districts have the dominance of area under large size holdings. They are also characterized by low fertility of soil, uneconomic holdings under small size, agriculturally backward economy, dominance of industrial activity along with mining and quarrying activity, high proportion of tribal population, with less involvement in agricultural activity. May be the same cause of low percentage of area under small size class.

4.2.1c. Distribution of Average Size of Holding under small-size (< 2 hectare)

In 1970-71 average size of holdings in small size class is highest for Palamu (5.25 household/hectare) and lowest for Purnia (0.94 hectare/household). While in 1980-81 it is the highest for West Champaran (3.47 hectare/household), and Saran has lowest 0.16 household/hectare. It shows that average size of holding has decreased at a greater rate. It is due to the increase of population and dependency of rural population on the agricultural sector, which resulted in fragmentation of holdings and average size of holding (has decreased. In 1970-71 average size of holding under small size class is high (>1.81) for the districts Palamu, Sitamari, Santhal Pargana, Giridih, Dhanbad, Begusarai. For the year 1980-81 it is high (> 1.75) for the West Champaran, Giridih, Dhanbad, Santhal Pargana, Ranchi, Hazaribagh, Katihar, Rohtas, Palamu, Singhbhum, and Bhagalpur (Table 4.3, Fig 4.5 and 4.6).

The reason for high average size of holdings in these districts may be attributed to their vast geographical area with low population density and low dependent population upon agriculture when compared to the districts of northern part of Bihar.

Table 4.3

BIHAR

Distribution of Average Size of Holdings in Small Size Class

(Hect/Household)

1970-71 & 1980-81

| Average Size of Holding (Small - Size) 1970-71 | | Average Size of Holding (Small - Size) 1980-81 | |
|---|---|---|--|
| Category | Districts | Category | Districts |
| LOW ≤ 1.75 | Purnia Munger Darbanga Muzaffarpur Vaisali Nalanda Madhubani Gaya | LOW ≤ 1.65 | Saran Muzaffarpur E.Champaran Vaisali Madhubani Gopalganj Sitamarhi Darbanga Saharsa Siwan |
| MEDIUM 1.76-1.80 | Patna Navada Aurangabad Saran Samastipur Singhbum Bhagalpur Bhojpur Siwan Gopalganj E.Champaran Saharsa Kathiar | MEDIUM 1.66-1.74 | Nalanda Samastipur Bhojpur Gaya Purnia Patna Navada Begusarai Aurangabad Munger |
| HIGH ≥ 1.81 | Begusarai Dhanbad Giridih Rohtas W.Champaran Hazari Bagh Ranchi Santhal Paragana Sitamarhi Palamu | HIGH ≥ 1.75 | Bhagalpur Singhbum Palamu Rohtas Kathiar Hazari Bagh Ranchi Santhal Paragana Dhanbad Giridih W.Champaran |

BIHAR
AVERAGE SIZE OF HOLDINGS
(SMALL HOLDING SIZE)
1971

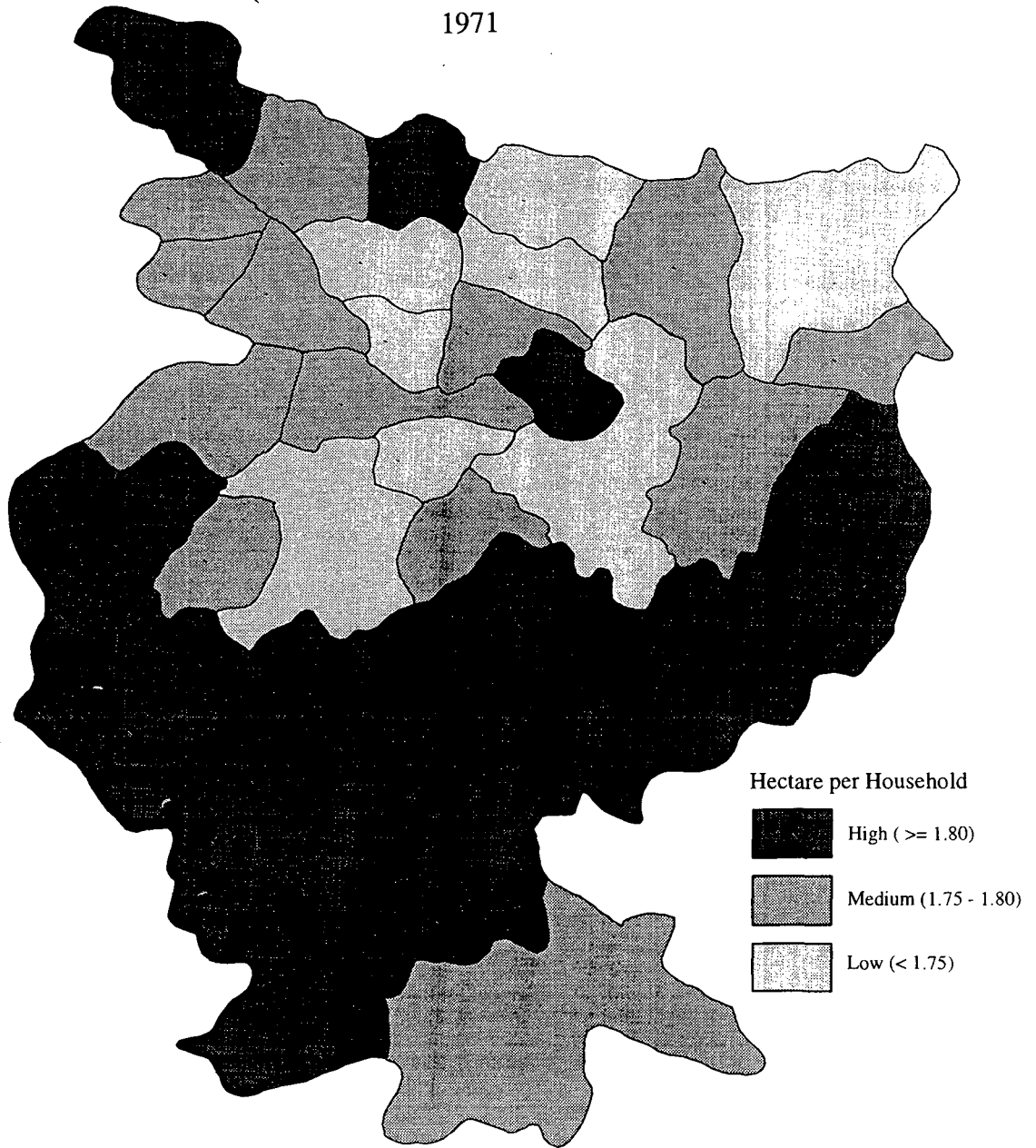


FIG 4.5

BIHAR
AVERAGE SIZE OF HOLDINGS
(SMALL HOLDING SIZE)
1981

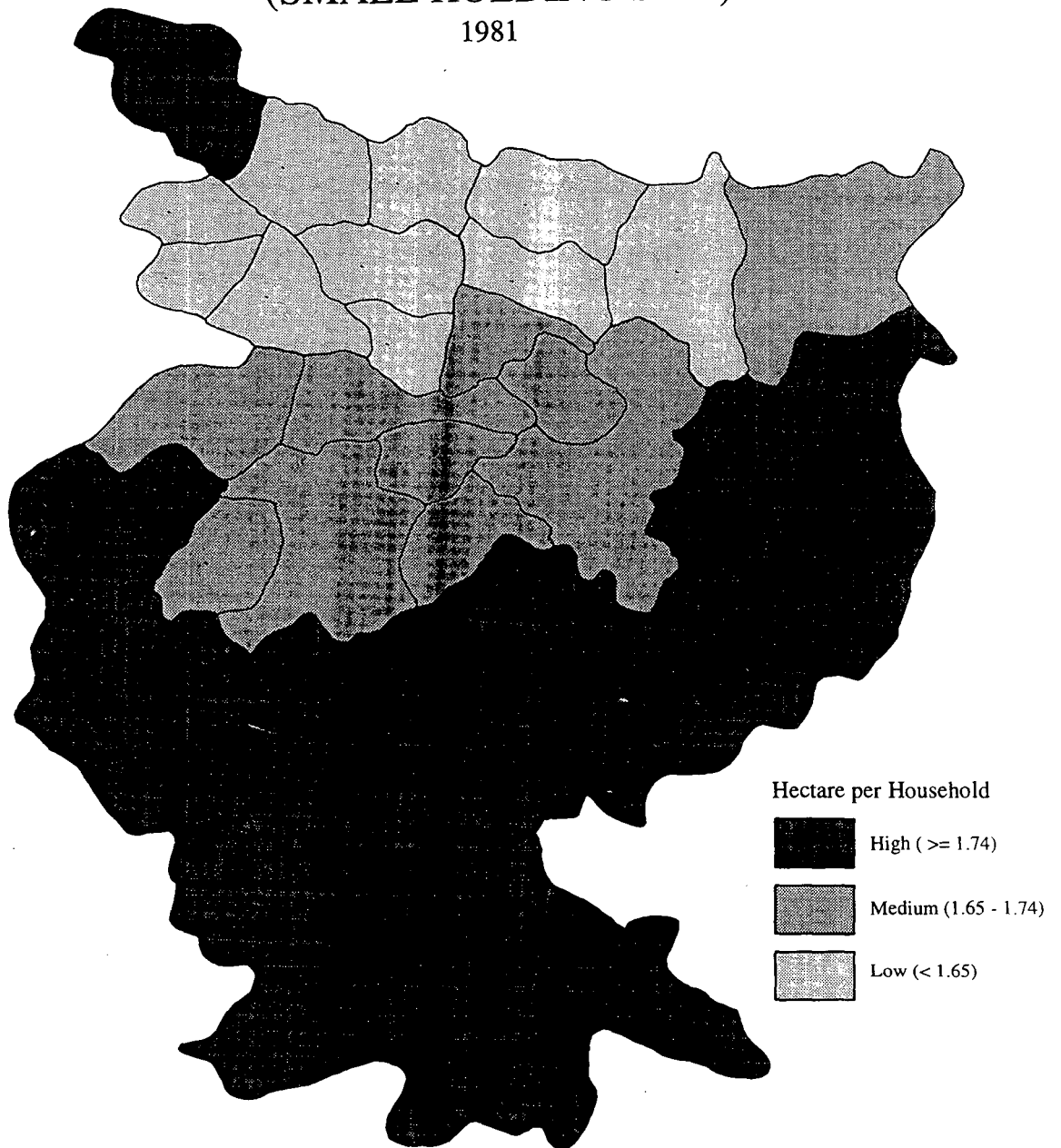


FIG 4.6

The remaining districts were under medium (1.76-1.80 hectare/household in 1970-71, and 1.66-1.74 hectare/household in 1980-81) and low (<1.75 hectare/household for 1970-71 and <1.65 hectare/household for 1980-81) category. The low average size of holding are found in the districts of Gaya, Madhubani, Nalanda, Vaisali, Muzaffarpur, Darbhanga, Munger and Purnia for the year 1970-71 and in Siwan, Saharsa, Darbhanga, Sitamarshi, Gopalganj, Madhubani, Vaishali, East Champaran, Muzaffarpur and Saran for 1980-81. The cause for low average size of holding for these districts is the small extent of geographical area of these districts, with fertile land, with high carrying capacity. Immense population pressure on land and high dependency on agricultural sector, with great amount of fragmentation of holdings.

4.2.2a. Distribution of Number of operational holding under medium size (2 to 10 hectares)

The number of holdings in this group is highest for Ranchi (36.1%) and lowest for Darbhanga, (9.5%) for 1970-71. In 1980-81 it is the highest for Ranchi (33.3%) and lowest for Vaishali (3.6%). The interesting thing about this size group is that most of the districts which are included under small medium and high category in the year 1970-71, also fall in the same category for the year 1980-81, but with a little difference in their magnitude (Table 4.4, Fig 4.7 and 4.8).

Most of the southern districts of Bihar, mainly the districts under Chotanagpur plateau region have high percentage of operational holdings, while most of the districts located in the part of Ganga plain and Ganga-Soan Doab have a lower number of operational holdings under medium size class.

Table 4.4
BIHAR
Distribution of Number of Operational Holdings in Medium Size Class
(InPercentage)

1970-71 & 1980-81

| No. of Operational Holdings (Medium - Size) 1970-71 | | No. of Operational Holdings (Medium - Size) 1980-81 | |
|---|---|---|--|
| Category | Districts | Category | Districts |
| LOW ≤ 15.00 | Darbanga Samastipur Vaisali Madhubani Sitamarhi Muzaffarpur Saran Nalanda Gaya Begusarai | LOW ≤ 8.2 | Vaisali Muzaffarpur Gopalganj Darbanga Sitamarhi Saran Madhubani Samastipur Begusarai Nalanda |
| MEDIUM 15.01-20.00 | E.Champaran Patna Munger W.Champaran Siwan Gopalganj Navada Bhagalpur Kathiar Saharsa Bhojpur | MEDIUM 8.21-15.40 | Patna E.Champaran Munger Navada Siwan Bhagalpur Saharsa Gaya Bhojpur Purnia Kathiar |
| HIGH ≥ 20.01 | Aurangabad Singhbum Purnia Giridih Rohtas Hazari Bagh Dhanbad Palamu Santhal Paragana Ranchi | HIGH ≥ 15.41 | Aurangabad Dhanbad Hazari Bagh Rohtas Giridih Palamu Singhbum Santhal Paragana W.Champaran Ranchi |

BIHAR
NUMBER OF OPERATIONAL HOLDINGS
(MEDIUM HOLDING SIZE)
1971

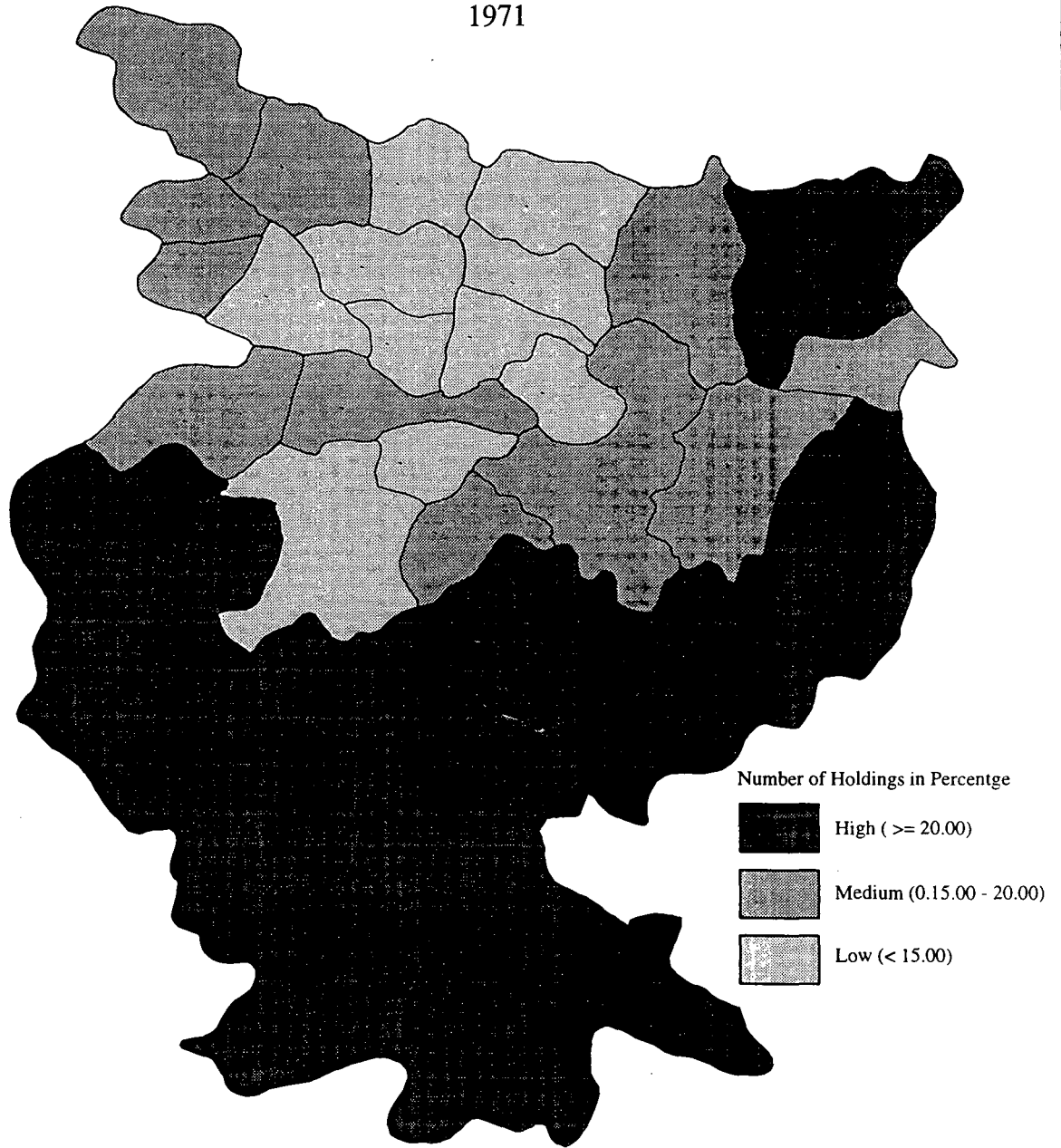


FIG 4.7

BIHAR
NUMBER OF OPERATIONAL HOLDINGS
(MEDIUM HOLDING SIZE)
1981

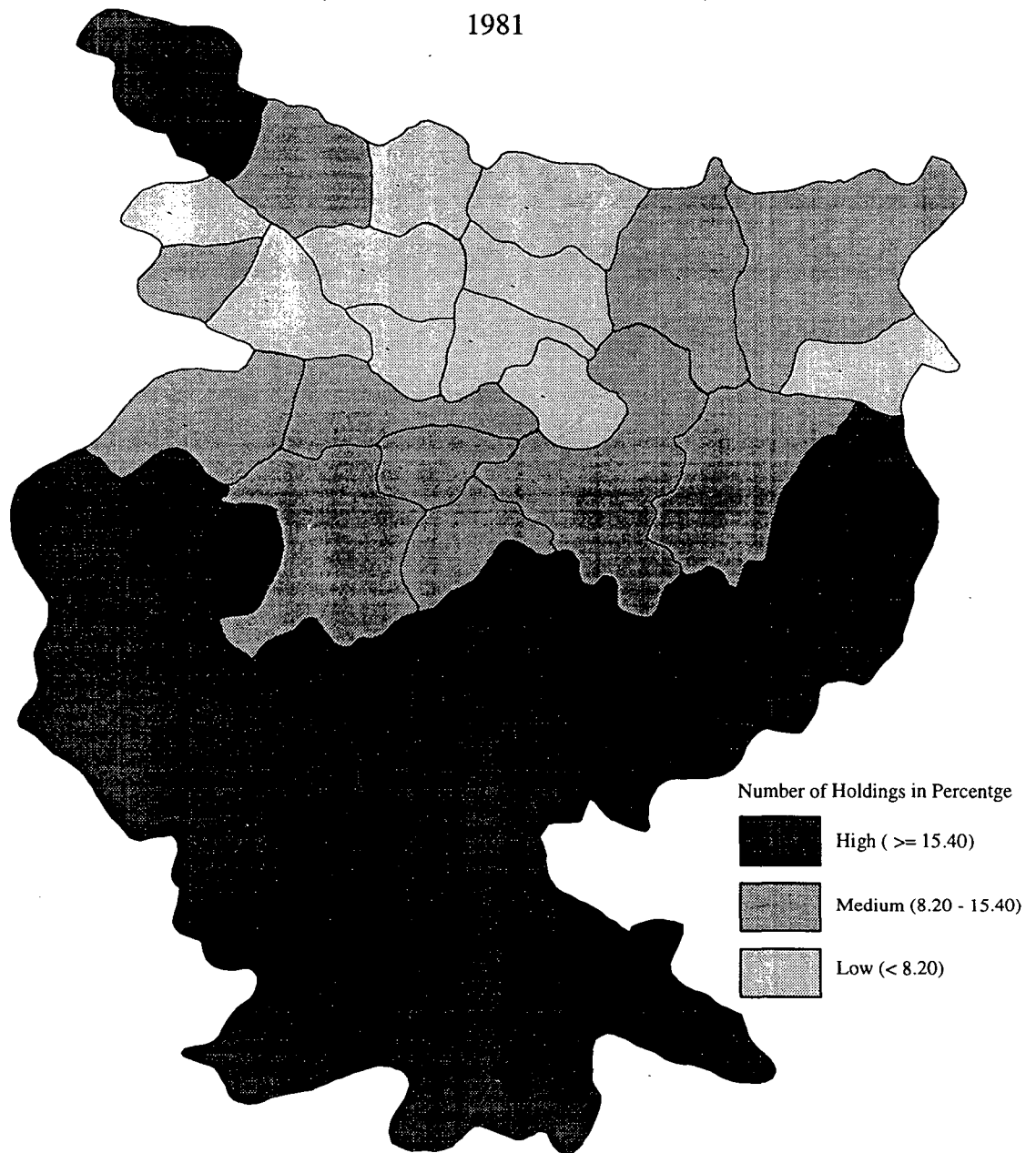


FIG 4.8

4.2.2.b. Distribution of operated Area under Medium Size (2-10 hectare)

The highest extent of area in this size has been recorded, for the districts Santhal Pargana (59.6%) and lowest for Palamu (29.4%) for 1970-71, while in 1980-81 it is highest for Santhal Pargana (59.8%) and lowest for the district Ranchi (23.4%). Most of the districts of south Bihar have the high percentage of area under this size group, with few exceptions like in 1970-71 Palamu had the lowest percentage of area under this category even though it lies in southern Bihar, and same trend was found in Ranchi in 1980-81. Large part of the Ganga plain and Ganga Soan Doab has low and medium percentage of share of this size group (Table 4.5, Fig 4.9 and 4.10).

4.2.2.c. Distribution of Average Size of Holding Under Medium Size (2-10 hectare)

The highest extent of area under average size of holdings is recorded in Palamu district (9.55 hectare/household) and it is the lowest for Darbhanga 7.92 hectare/household for the year 1970-71. In 1980-81, the average size of holding has declined at a higher rate. It is lowest for Saran (0.78 hectare/household) and highest for West Champaran (8.84 hectare/household). Average size of holding is shrinking due to the increase in population in a geometrical proportion and land area being constant (Table 4.6, Fig 4.11 and 4.12).

4.2.3a. Distribution of Number of Operational Holdings Under Large Size (> 10 hectare)

Number of operational holdings under this group is very negligible. It means only few people own a great amount of land. The lowest percentage number of operational holdings is recorded in Nalanda (0.3%) and highest for Ranchi (6.6%) in

Table 4.5

BIHAR

**Distribution of Area of Operational Holdings in Medium Size Class
(InPercentage)
1970-71 & 1980-81**

| Area of Operational Holding (Medium - Size) 1970-71 | | Area of Operational Holding (Medium - Size) 1980-81 | |
|--|---|--|---|
| Category | Districts | Category | Districts |
| LOW ≤ 45.40 | Palamu Darbanga Samastipur Madhubani W.Champaran Katihar Vaisali Bhagalpur Begusarai E.Champaran | LOW ≤ 38.20 | Ranchi Vaisali Saran Muzaffarpur Darbanga Gopalganj Nalanda Begusarai Madhubani Sitamarhi |
| MEDIUM 45.41– 50.90 | Saran Munger Sitamarhi Purnia Muzaffarpur Saharsa Gaya Siwan Nalanda Gopalganj Patna | MEDIUM 38.21– 51.40 | Samastipur Patna Munger Navada W.Champaran Siwan E.Champaran Bhagalpur Gaya Kathiar Dhanbad |
| HIGH ≥ 50.91 | Ranchi Giridih Navada Hazari Bagh Bhojpur Rohtas Dhanbad Singhbum Aurangabad Santhal Paragana | HIGH ≥ 51.41 | Saharsa Purnia Bhojpur Aurangabad Palamu Giridih Hazari Bagh Rohtas Singhbum Santhal Paragana |

BIHAR
AREA UNDER OPERATIONAL HOLDINGS
(MEDIUM HOLDING SIZE)
1971

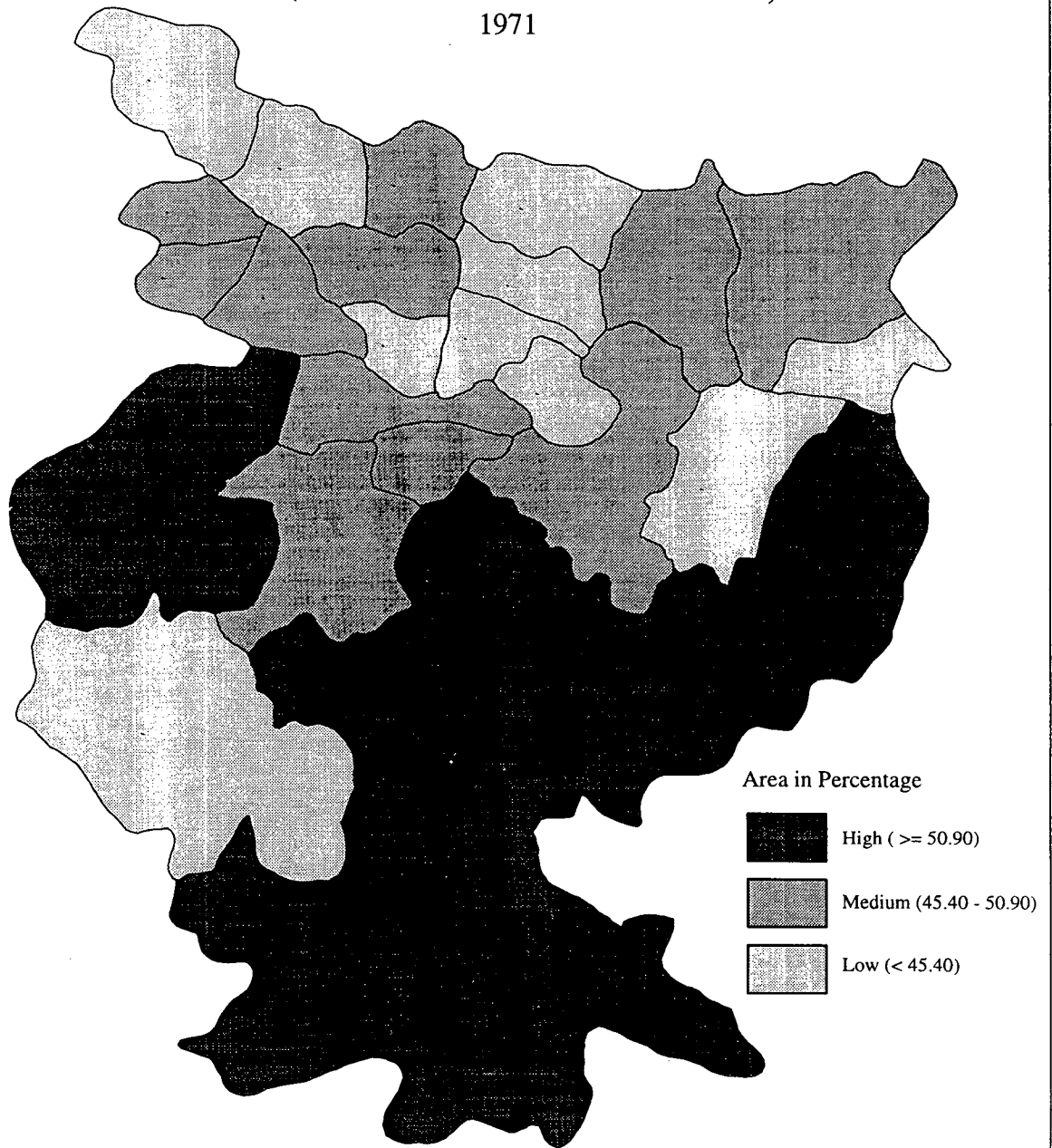


FIG 4.9

BIHAR
AREA UNDER OPERATIONAL HOLDINGS
(MEDIUM HOLDING SIZE)
1981

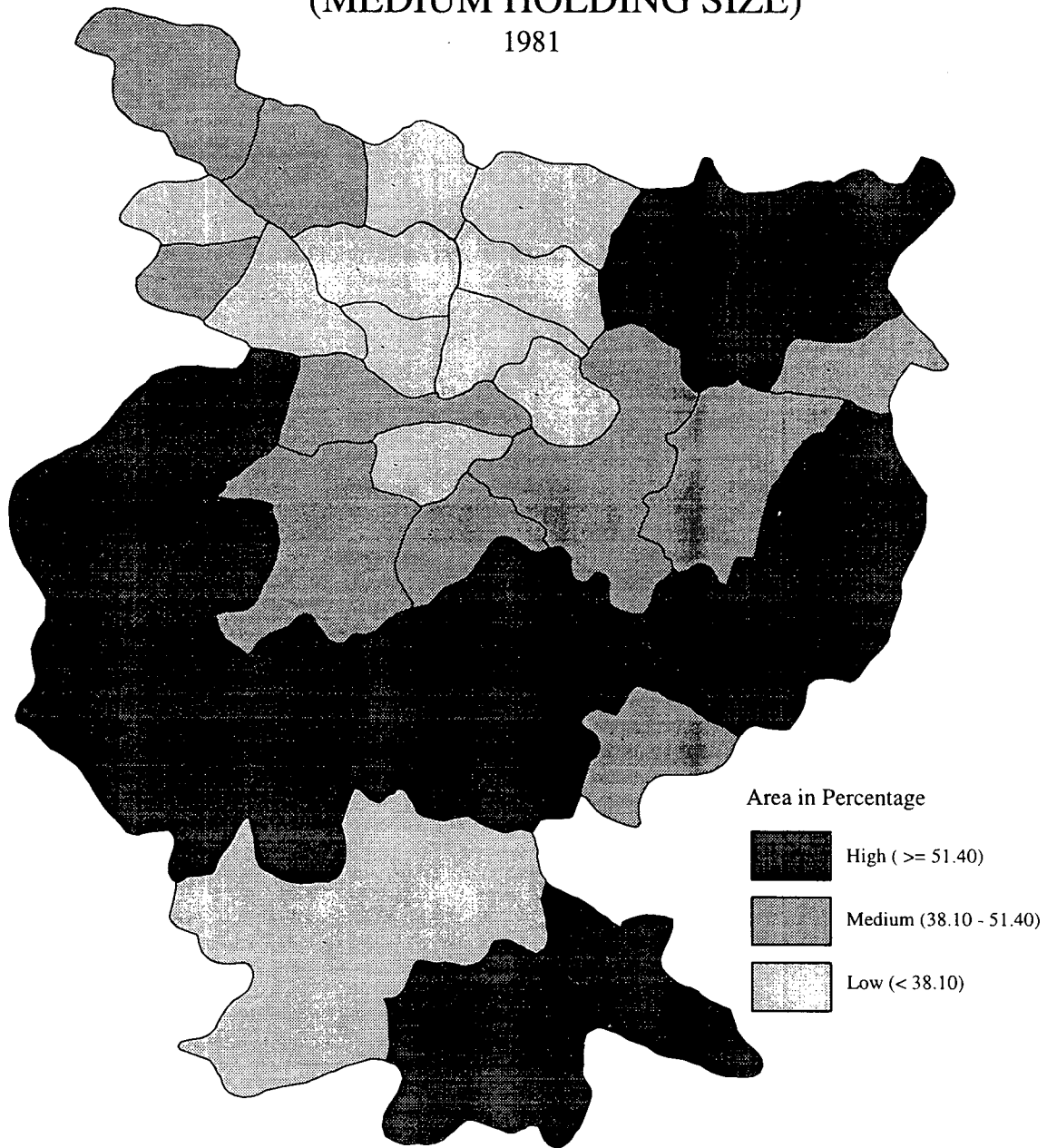


FIG 4.10

Table 4.6

BIHAR

Distribution of Average Size of Holdings in Medium Size Class

(Hect/Household)

1970-71 & 1980-81

| Average Size of Holding (Medium - Size) 1970-71 | | Average Size of Holding (Medium - Size) 1980-81 | |
|--|---|--|---|
| Category | Districts | Category | Districts |
| LOW ≤ 8.37 | Darbanga Aurangabad Gaya Gopalganj Madhubani Nalanda Saharsa Saran Navada Kathiar | LOW ≤ 8.07 | Saran Ranchi Nalanda Patna Navada Gaya Madhubani Siwan Muzaffarpur E.Champaran |
| MEDIUM 8.38-8.64 | Patna Siwan Muzaffarpur Samastipur Vaisali E.Champaran Giridih Sitamarhi Singhbum Bhojpur | MEDIUM 8.08-8.38 | Begusarai Saharsa Gopalganj Aurangabad Darbanga Samastipur Rohtas Purnia Munger Bhojpur Vaisali |
| HIGH ≥ 8.65 | Munger Hazari Bagh Purnia W.Champaran Bhagalpur Rohtas Santhal Paragana Dhanbad Begusarai Ranchi Palamu | HIGH ≥ 8.39 | Sitamarhi Giridih W.Champaran Dhanbad Bhagalpur Kathiar Singhbum Hazari Bagh Santhal Paragana Palamu |

BIHAR
AVERAGE SIZE OF HOLDINGS
(MEDIUM HOLDING SIZE)
1971

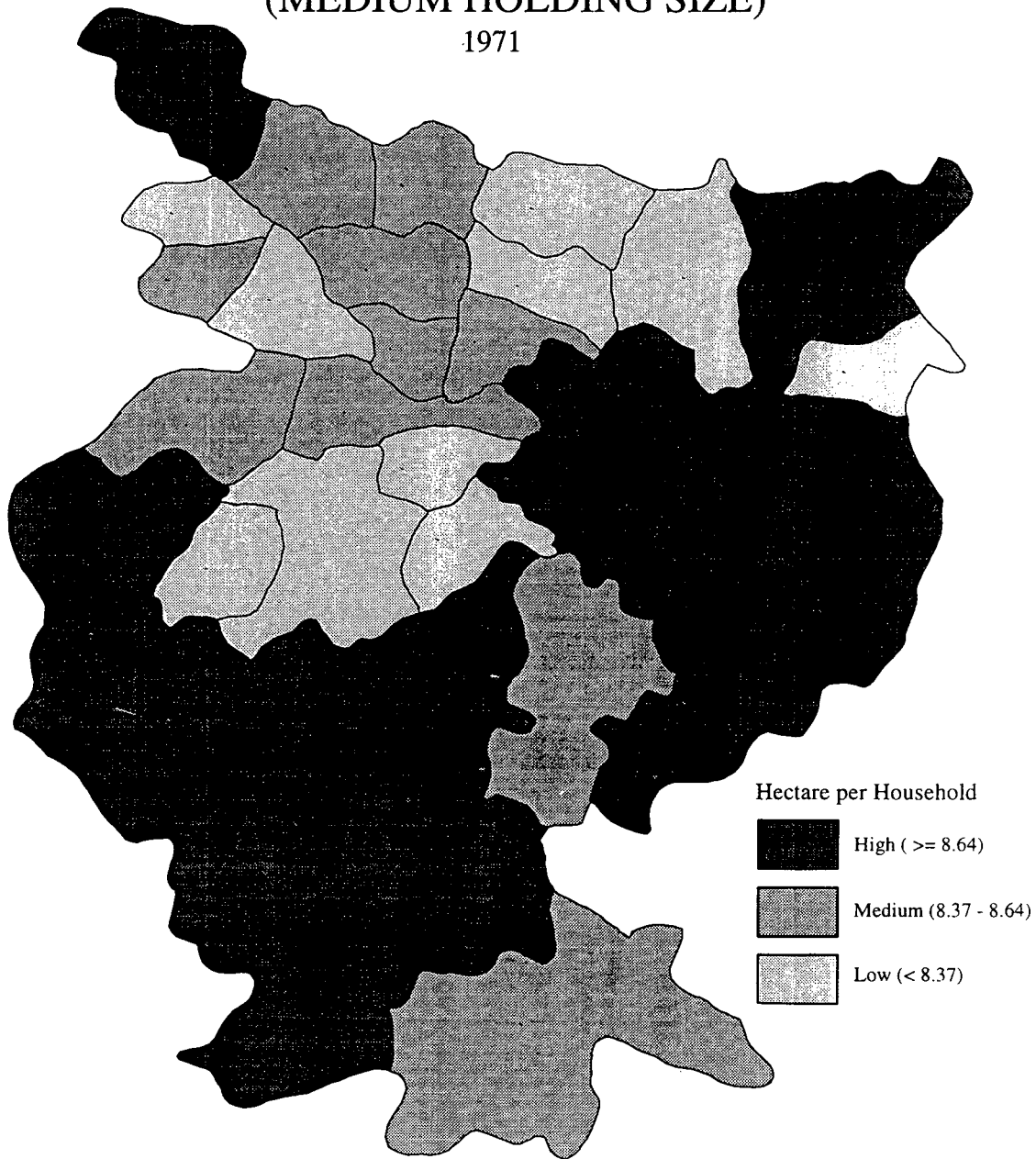


FIG 4.11

BIHAR
AVERAGE SIZE OF HOLDINGS
(MEDIUM HOLDING SIZE)
1981

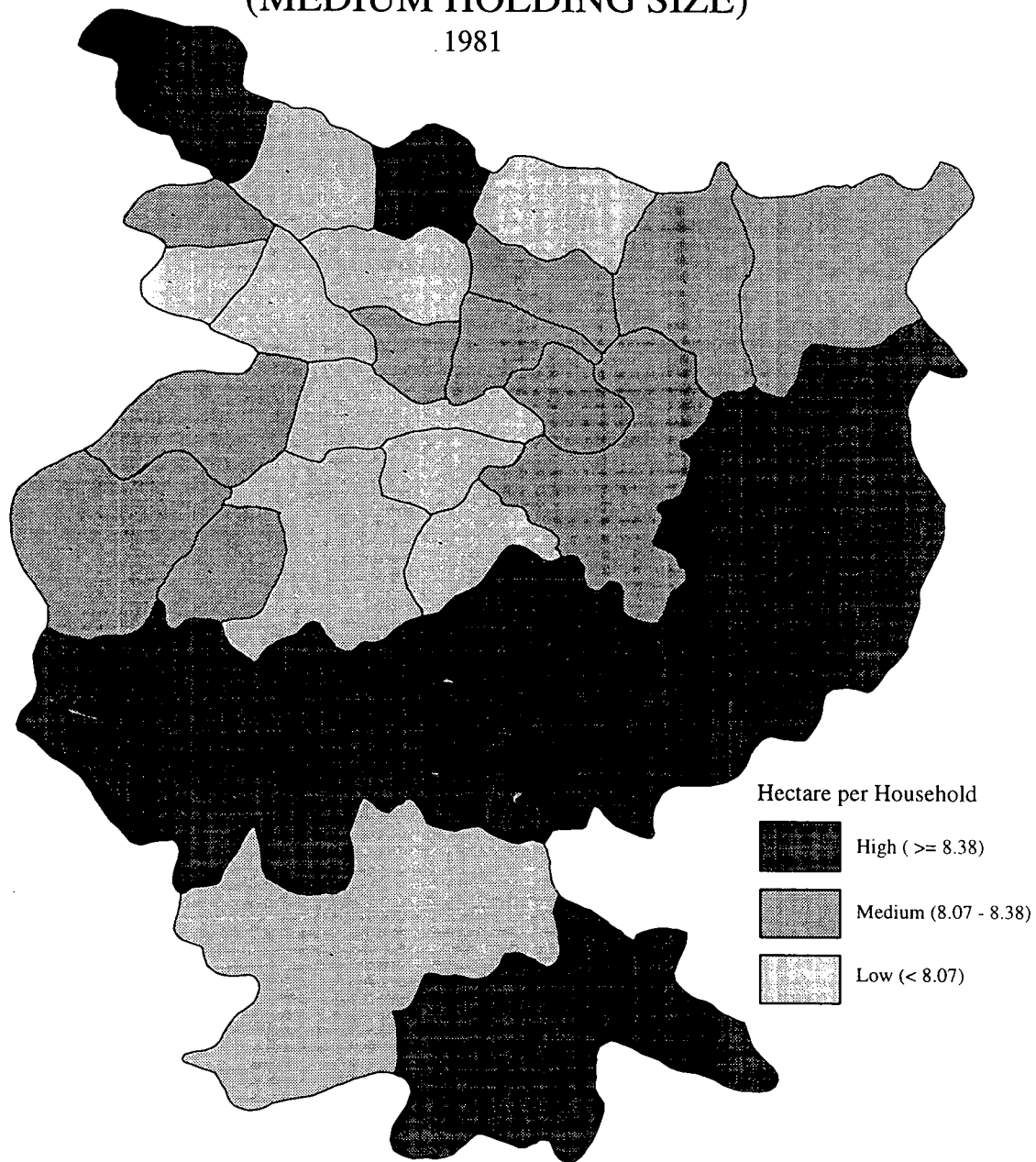


FIG 4.12

1970-71. In 1980-81 the highest percent age was recorded in Ranchi (4.5%) and Patna, Nalanda and Nawada had the lowest (Table 4.7, Fig 4.13 and 4.14).

4.2.3b. Distribution of Area Under Large size (> 10 hectare)

In large size group Ranchi stood first with 36 percent of area and Nalanda was the last with 5.2 percent of area. Remaining districts had the shares between these two values in 1970-71. In 1980-81 Aurangabad stood first (27.51%) and Nalanda had the last place (0.6%). In most part of the southern districts of Bihar along with some districts of central Bihar and a few of the gangetic region have high percentage of operated area under large holdings for both the time periods. These are mainly Ranchi, Purnia, Bhagalpur, Dhanbad, Katihar, Hazaribagh, Giridih, Munger, West Champaran, Santhal Pargana and Rohtas. Most of the districts in southern Bihar, have large geographical area, large forest cover, and restricted agricultural land. Due to the difference in the soil, physiography, rainfall, along with the agricultural infrastructure, irrigation facility, fertilizer availability, road length etc. population concentration is low in this part. The socio-economic structure of southern Bihar is different from north Bihar, due to high proportion of tribal population. All these factors are responsible for large holdings. Some districts of north Bihar like Purnia, Munger, and East Champaran have big landlords since the colonial time. They are also able to escape from land reform laws through the loopholes in law and even in the present time they are able to hold large proportion of area. In most of the districts of North Bihar plain proportion of low and medium percentage of large holdings are found for both the time period due to the above mentioned facts which are responsible for high proportion of operated area under small size (Table 4.8, Fig 4.15 and 4.16).

Table 4.7

BIHAR

**Distribution of Number of Operational Holdings in Large Size Class
(InPercentage)
1970-71 & 1980-81**

| No. of Operational Holdings (Large - Size) 1970-71 | | No. of Operational Holdings (Large - Size) 1980-81 | |
|---|---|---|---|
| Category | Districts | Category | Districts |
| LOW ≤ 0.7 | Nalanda Gaya Saran Navada Vaisali Darbanga Patna Madhubani Siwan Gopalganj | LOW ≤ 0.1 | Patna Nalanda Saran Navada Gopalganj Muzaffarpur Vaisali Darbanga Madhubani Samastipur |
| MEDIUM $0.71-1.80$ | Muzaffarpur Samastipur Sitamarhi Aurangabad Begusarai E.Champaran Bhojpur Munger W.Champaran Saharsa Singhbum | MEDIUM $0.2-0.5$ | Gaya Siwan Sitamarhi Begusarai Aurangabad E.Champaran Saharsa Munger Bhagalpur Bhojpur Purnia |
| HIGH ≥ 1.81 | Bhagalpur Kathiar Rohtas Giridih Hazari Bagh Dhanbad Santhal Paragana Purnia Palamu Ranchi | HIGH ≥ 0.6 | Giridih Kathiar Dhanbad Hazari Bagh Rohtas W.Champaran Santhal Paragana Singhbum Palamu Ranchi |

BIHAR
NUMBER OF OPERATIONAL HOLDINGS
(LARGE HOLDING SIZE)
1971

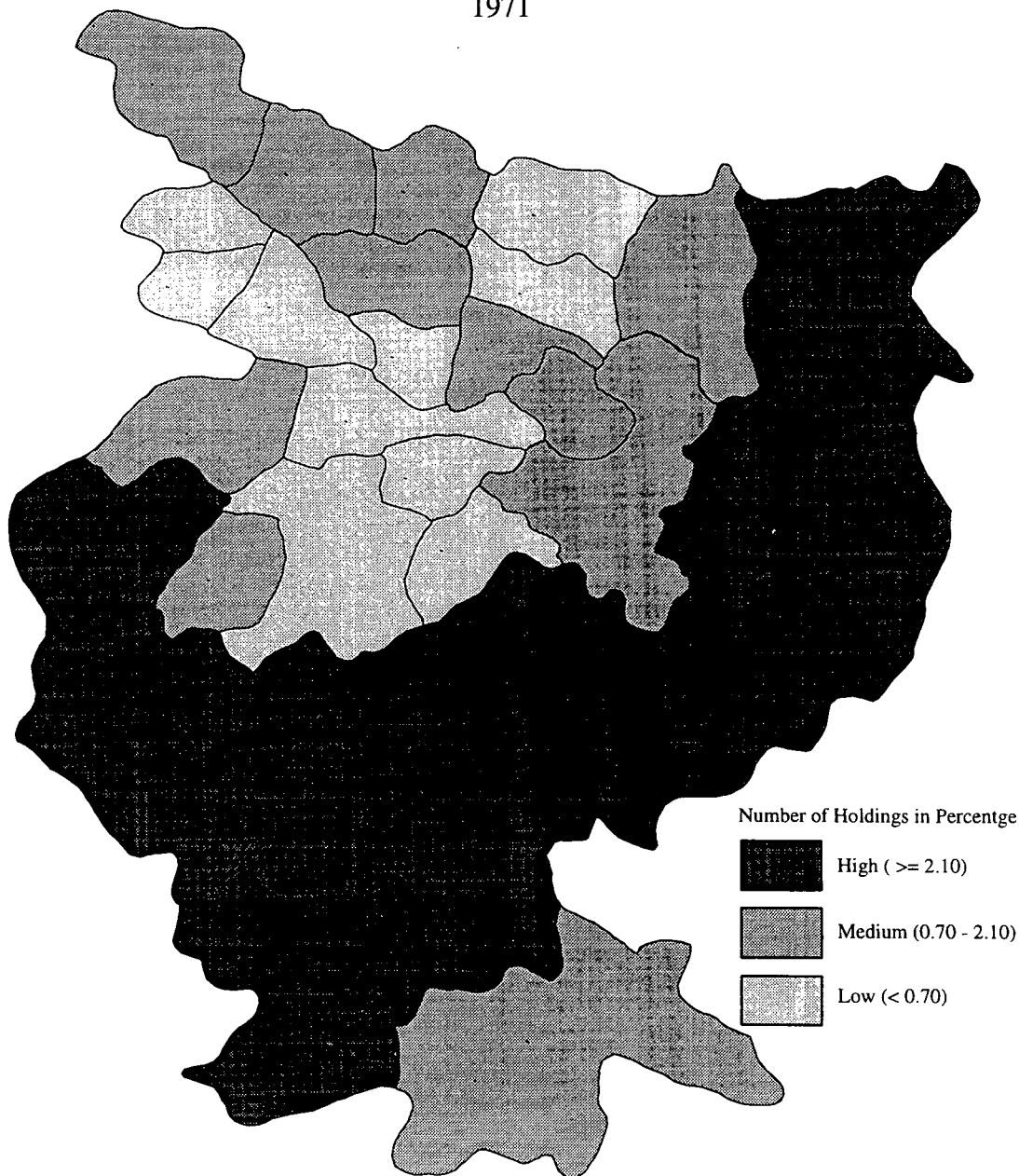


FIG 4.13

BIHAR
NUMBER OF OPERATIONAL HOLDINGS
(LARGE HOLDING SIZE)
1981

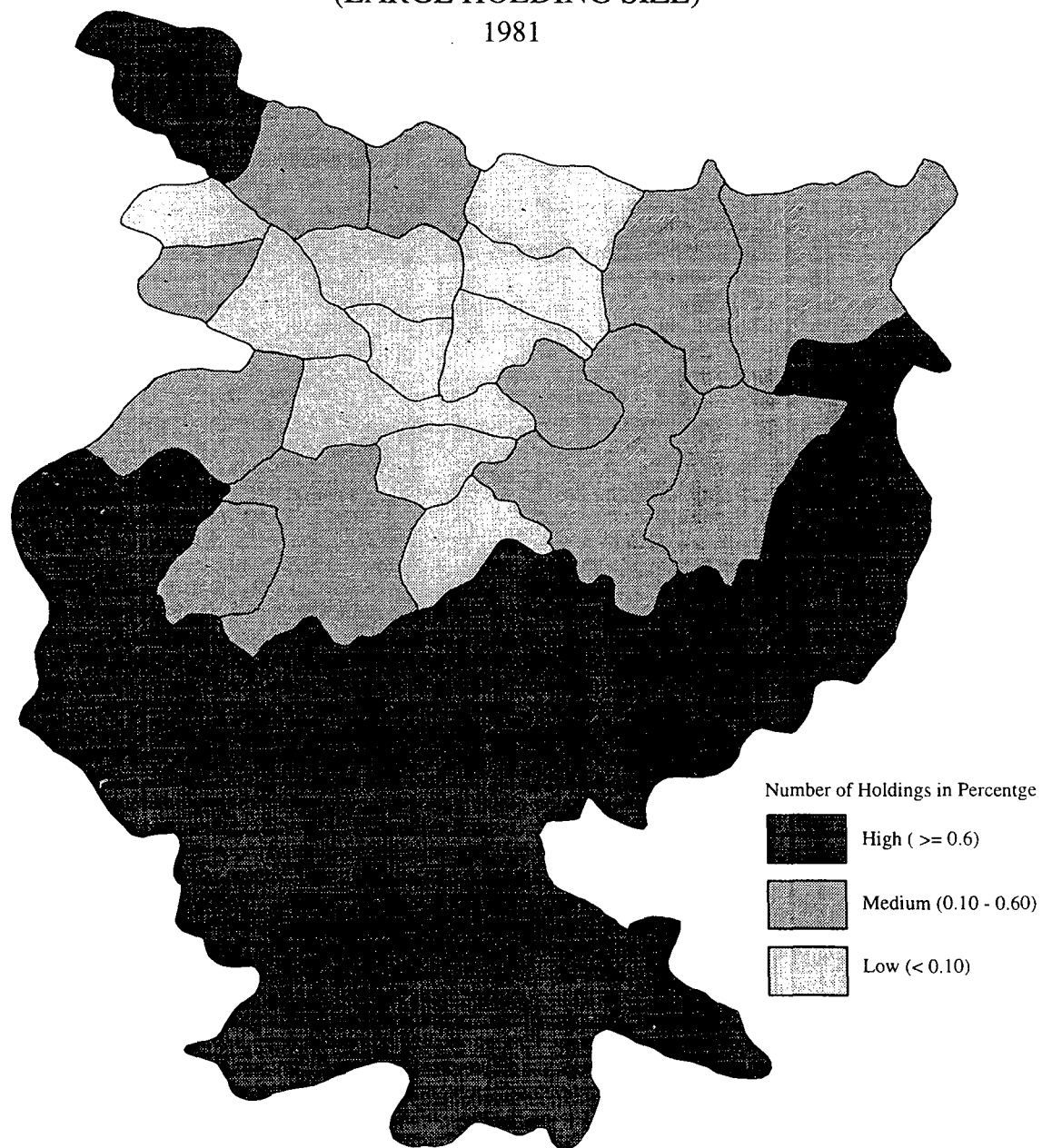


FIG 4.14

Table 4.8

BIHAR

**Distribution of Area of Operational Holdings in Large Size Class
(InPercentage)
1970-71 & 1980-81**

| Area of Operational Holding (Large - Size) 1970-71 | | Area of Operational Holding (Large - Size) 1980-81 | |
|---|---|---|--|
| Category | Districts | Category | Districts |
| LOW ≤ 10.60 | Nalanda Gaya Saran Patna Navada Gopalganj Darbanga Vaisali Siwan Aurangabad | LOW ≤ 3.60 | Nalanda Saran Patna Navada Vaisali Madhubani Muzaffarpur Samastipur Gaya Darbanga |
| MEDIUM 10.61-21.90 | Muzaffarpur Madhubani Sitamarhi Samastipur Bhojpur Singhbum E.Champaran Begusarai Saharsa Palamu Rohtas | MEDIUM 3.61-7.50 | Siwan Sitamarhi Aurangabad Begusarai Saharsa E.Champaran Gopalganj Munger Purnia Bhojpur Giridih |
| HIGH ≥ 21.91 | Santhal Paragana W.Champaran Munger Giridih Hazari Bagh Kathiar Dhanbad Bhagalpur Purnia Ranchi | HIGH ≥ 7.51 | Bhagalpur Dhanbad W.Champaran Kathiar Ranchi Hazari Bagh Rohtas Santhal Paragana Singhbum Palamu |

BIHAR
AREA UNDER OPERATIONAL HOLDINGS
(LARGE HOLDING SIZE)
1971

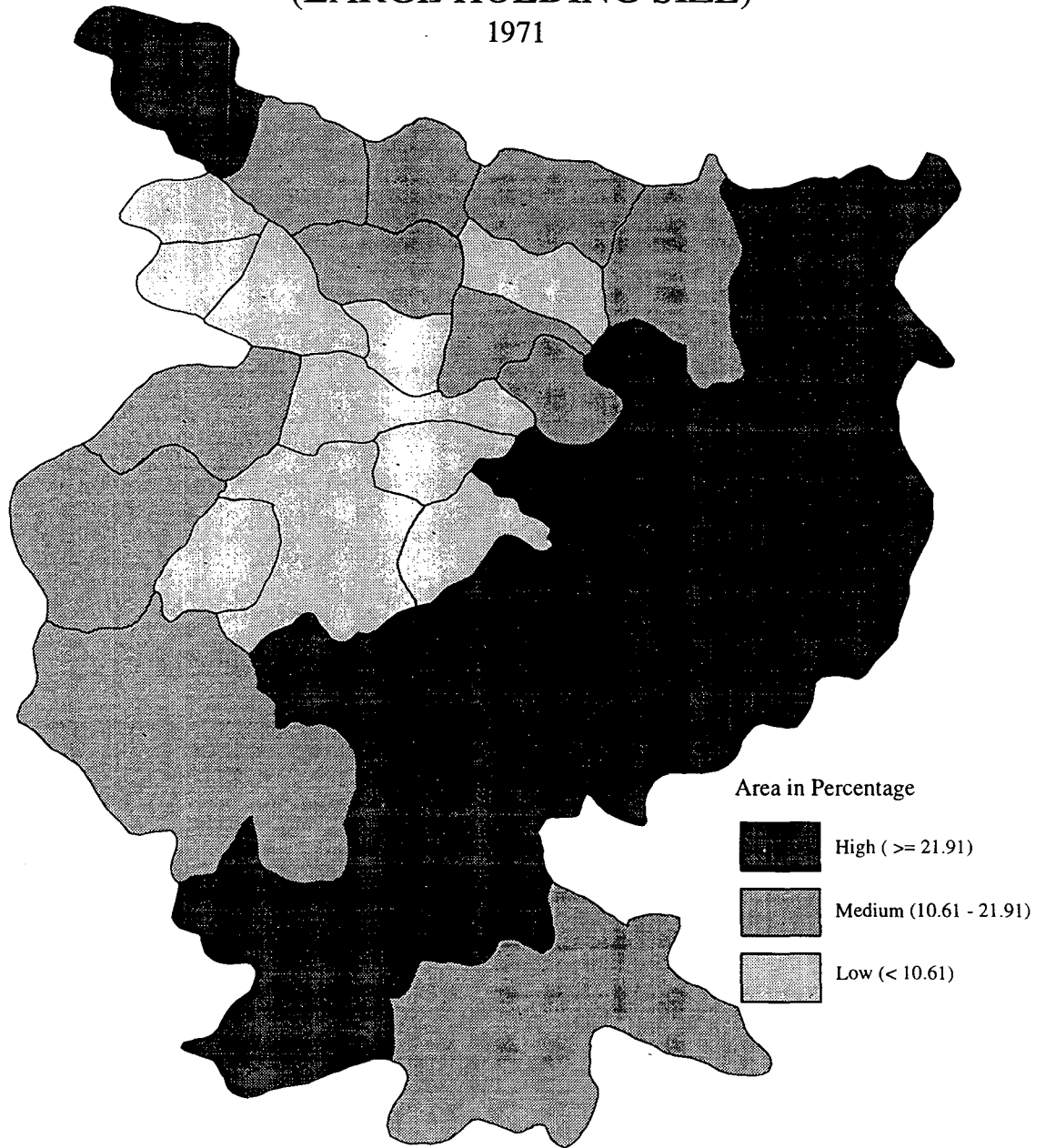


FIG 4.15

BIHAR
AREA UNDER OPERATIONAL HOLDINGS
(LARGE HOLDING SIZE)
1981

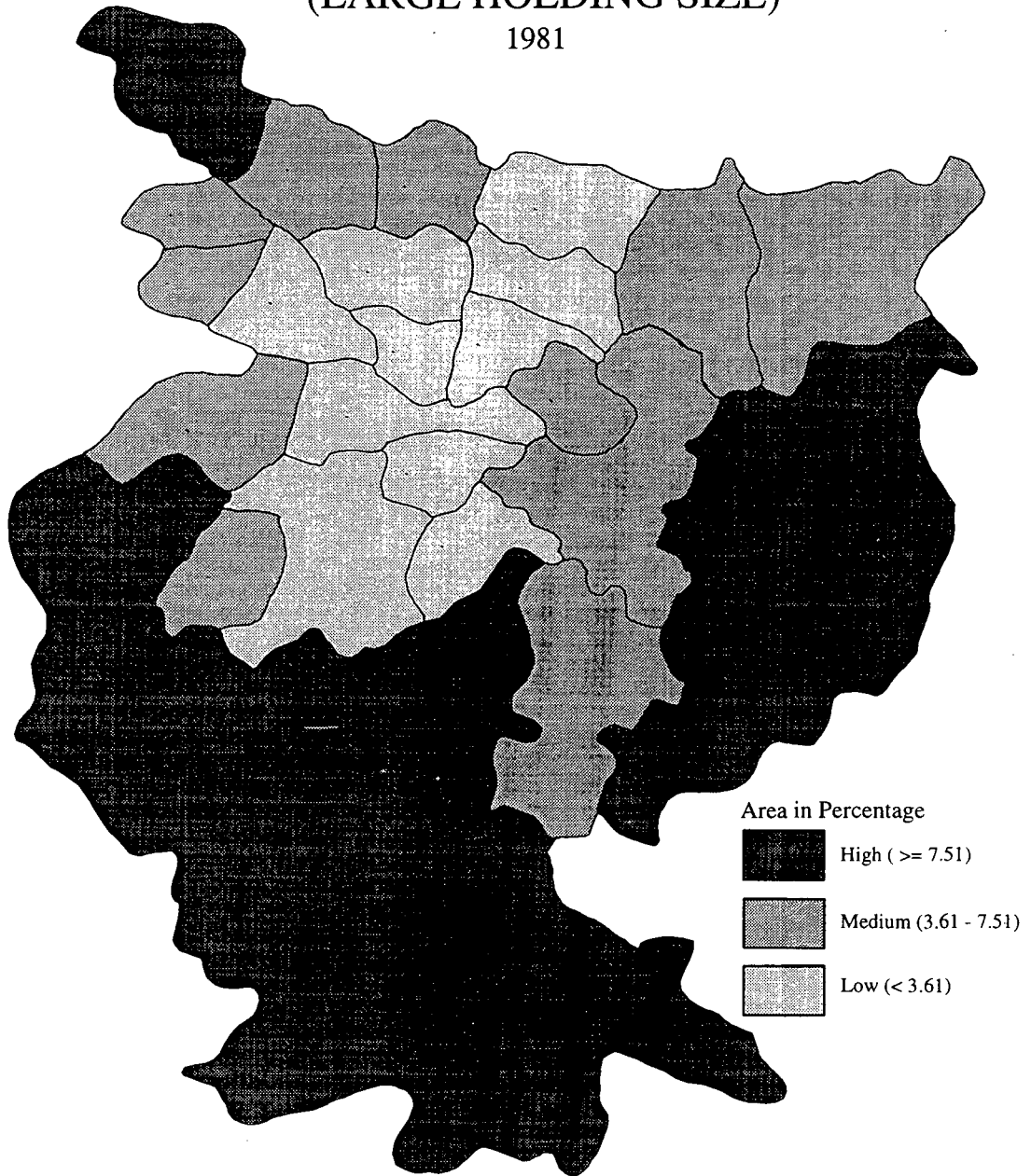


FIG 4.16

4.2.3c. The Distribution of Average Size of Holding Under Large Size (>10 hectare)

It is very high for both the periods when compared to small and medium size of holdings. The proportion average size of holdings under large size shows a similar pattern for both the time periods but the magnitude has shown little difference over the decade. This size group explains that land reforms have not taken place in Bihar. Because average area under large size of holdings is highest for Ranchi (36 hectare per household) in 1970-71 and in 1980-81 it was the highest for Aurangabad (27.51 hectare/household). On the other end average size of holdings under small size class is the lowest for Purnia (0.94 hectare/household in 1970-71) in 1980-81 it is the lowest for Saran (0.16 household/hectare) in 1980-81. This shows extreme inequality in the distribution of land. And it is, in itself a proof of failures of land reform measures in Bihar (Table 4.9, Fig 4.17 and 4.18).

4.3 CONCENTRATION RATIO OF LAND HOLDINGS IN BIHAR

The Gini's co-efficient value indicates the concentration level of land holdings in Bihar. The Gini's value is 0.605 for Bihar in 1970-71 and it has reduced to .557 for the period 1980-81. Showing a decreasing trend in concentration level. In both the periods for all the categories the Gini's value has decreased. It means overall concentration level of holdings has decreased.

4.3a. High concentration of land holdings

The high concentration level (>0.611) has been recorded in four districts in 1970-71, namely – Dhanbad (0.613), Munger (0.618) Bhagalpur (0.626) and Purnia

Table 4.9

BIHAR

Distribution of Average Size of Holdings in Large Size Class

(Hect/Household)
1970-71 & 1980-81

| Average Size of Holding (Large - Size) 1970-71 | | Average Size of Holding (Large - Size) 1980-81 | |
|---|---|---|---|
| Category | Districts | Category | Districts |
| LOW ≤ 16.16 | Ranchi Purnia Santhal Paragana Dhanbad Hazari Bagh Rohtas Giridih Singhbum Bhagalpur Munger | LOW ≤ 15.32 | Ranchi Purnia Santhal Paragana Dhanbad Hazari Bagh Rohtas Giridih Singhbum Bhagalpur Munger |
| MEDIUM 16.17-18.03 | Bhojpur Kathiar Saharsa Aurangabad W.Champaran E.Champaran Begusarai Sitamarhi Navada Muzaffarpur Patna | MEDIUM 15.33-17.16 | Bhojpur Kathiar Saharsa Aurangabad W.Champaran E.Champaran Begusarai Sitamarhi Navada Muzaffarpur Patna |
| HIGH ≥ 18.04 | Gopalganj Siwan Gaya Nalanda Samastipur Madhubani Vaisali Saran Palamu Darbanga | HIGH ≥ 17.17 | Gopalganj Siwan Gaya Nalanda Samastipur Madhubani Vaisali Saran Palamu Darbanga |

BIHAR
AVERAGE SIZE OF HOLDINGS
(LARGE HOLDING SIZE)
1971

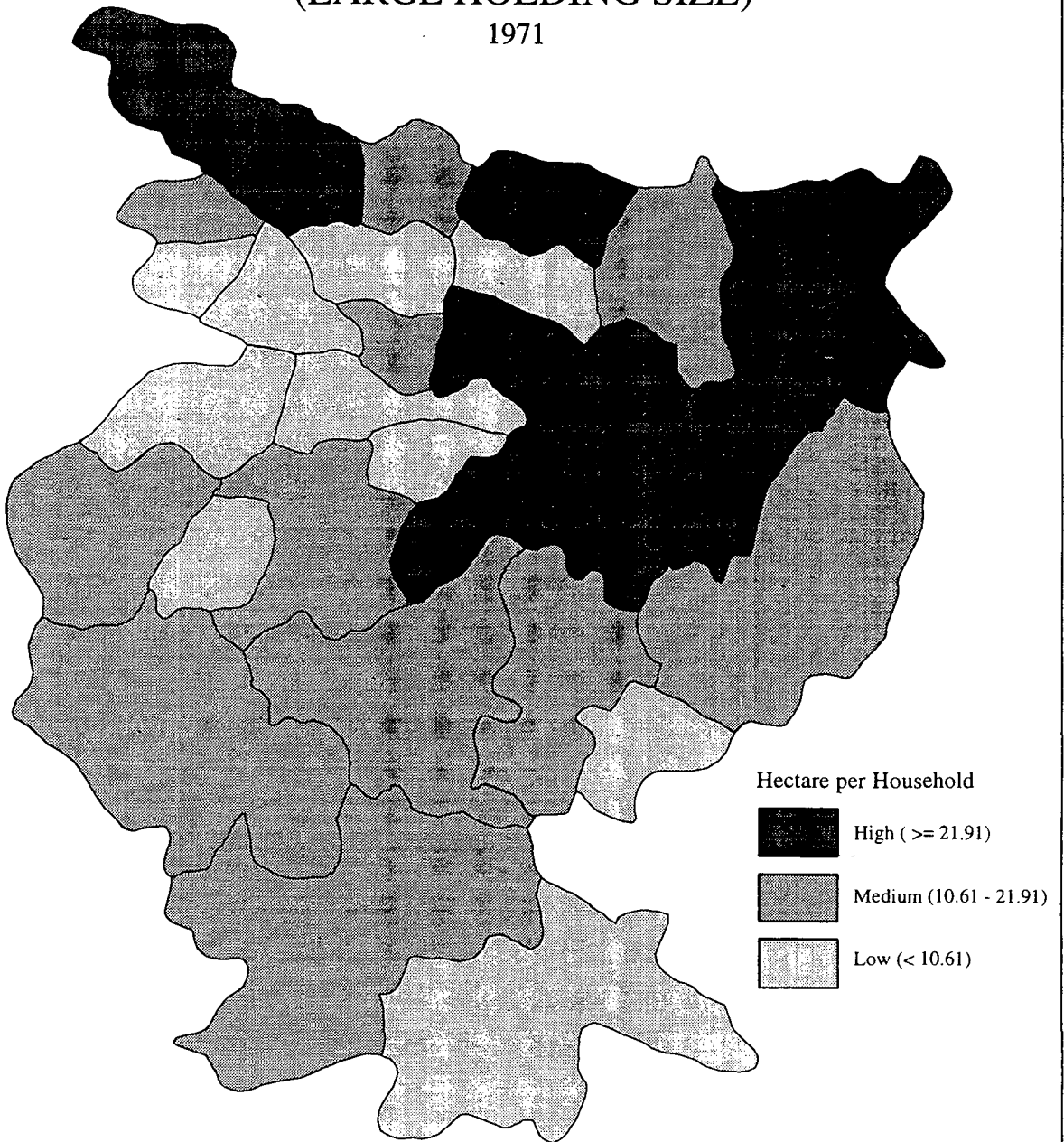


FIG 4.17

BIHAR
AVERAGE SIZE OF HOLDINGS
(LARGE HOLDING SIZE)
1981

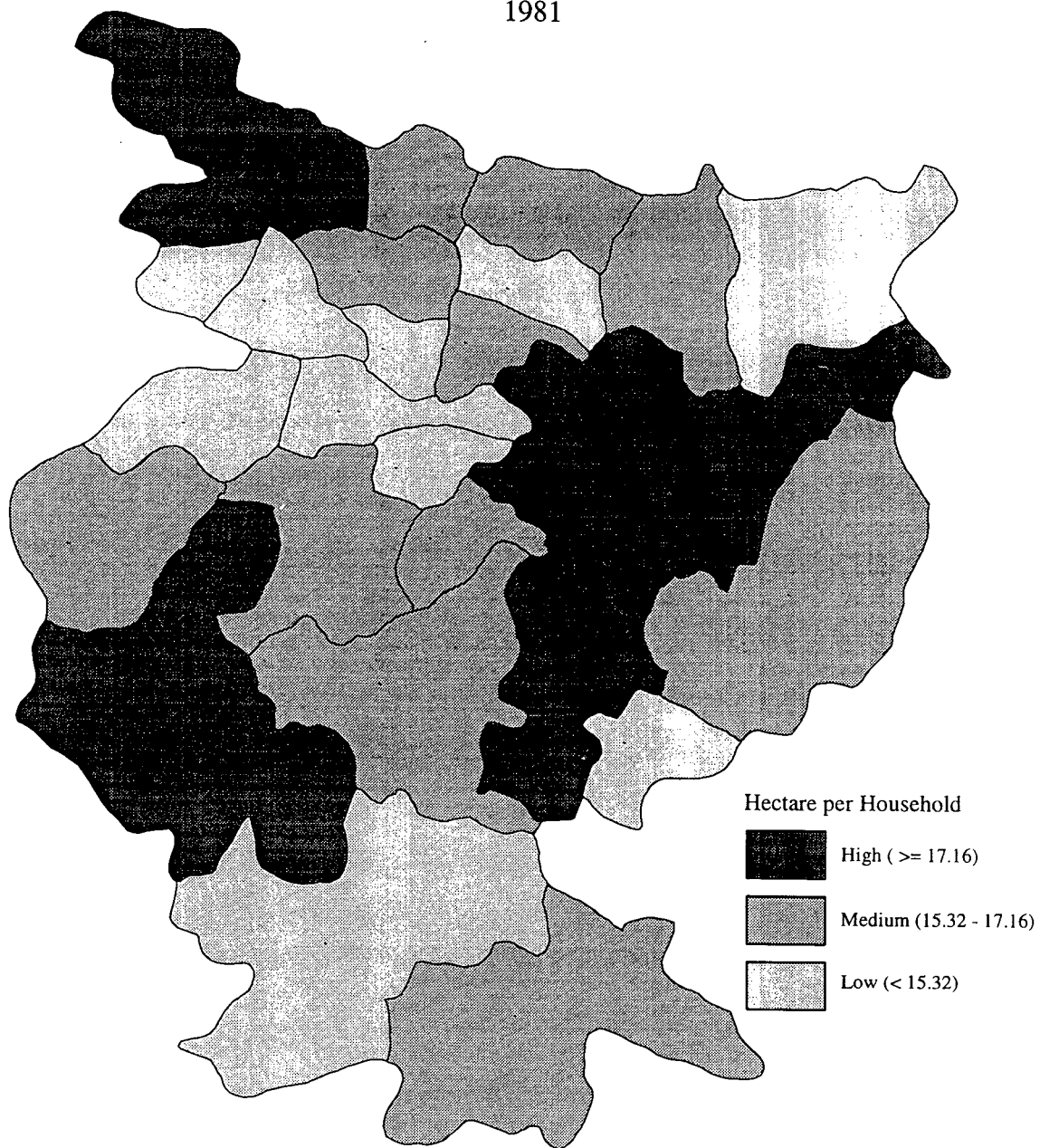


FIG 4.18

(0.661). In 1980-81 it is, for Sharasa (0.612), Singhbhum (0.606) and Palamu (0.592). Value of Gini's co-efficient is higher due to the fact that in these districts the proportion of large size of operated area is very high and number of holding is very low, for both the years. For the year 1970-71, in Purnia 35.7 percent operated area is only under 5.1 percent of holdings. In Bhagalpur, 26.3 percent operated area is under 2.1 percent of holdings. In Munger 23.6 percent of operated area is only under 1.5 percent of holdings. In Dhanbad 24.8 percent of area is shared by only 3.2 percent of holdings in the large size. All the above districts reflects that the high percent of operated area is shared by a very little percentage of holdings. The same incident is happening for 1980-81 also. In Palmau 21 percent of operated area is shared by 2% of holdings, in Singhbhum 17.9 percent of area is shared by 1.9 percent of the holdings, and in Saharsa 6.7 percent of operated area is shared by only 0.3 percent holdings, for large size. In this respect, area and holdings ratio for all the districts is very-very high, that's why it has resulted in to a high concentration of land holdings for these districts. The cause for high concentration in these districts is obviously large holding size with sparse population, a symbol of inadequacy of land reforms measures in these districts.

4.3b. Medium concentration of land holdings

The districts with Gini co-efficient values 0.574 to 0.611 are in medium concentration of holdings in 1970-71. While in 1980-81, Gini's co-efficient value with 0.488-0.565 are under medium concentration. For 1970-71 these districts are – Singhbhum, (0.605), Sitamarhi (0.602), Rohtas (0.601), Hazaribag (0.600), Giridi (0.596), W. Champaran (0.596), Ranchi (0.595), Katihar (0.593), Bhojpur (0.589), Palamu, (0.588). Saharasha (0.581), E. Champaran (0.579), Muzuffarpur (0.579), while for 1980-81, districts are Giridih (0.489), E. Champaran (0.505) Gopalganj

(0.507), Aurangabad (0.520), Bhagalpur (0.521), Dhanbad (0.526), Ranchi (0.529), Purnia (0.540), Katihar (0.543), Bhojpur (0.545), Santhal Pargana (0.551), Hazaribagh (0.562) and Rohtas (0.565) (Table 4.10, Fig 4.19 and 4.20).

4.3c. Low concentration of land holdings

The districts like – Darbhanga (0.492), Saran (0.506), Gopalgang (0.521), Madhubani (0.522), Gaya (0.535), Vaishali (0.537), Nalanda (0.538), Patna (0.539), Sivan (0.540), Samastipur (0.547), Nawada (0.556), Aurangabad (0.556), Santhal pargana (0.569), and Begusari (0.569) has low concentration of holdings in the year 1970-71. In 1980-81 it is low for the districts W. Champaran, (0.238), Saran (0.340), Vaishali (0.394). Darbhanga (0.410), Patna (0.422), Madhubani (0.426), Nalanda (0.427), Begusari (0.443), Muzuffarpur (0.446), Samastipur (0.446), Gaya (0.475), Munger (0.476) and Sitamarhi (0.476). The cause of low concentration in these districts may be attributed to the fact that all the above districts are the part of either North Bihar Plain or the part of Ganga-Soan Doab, a very fertile segment of land with over concentration of population.

Similarly, in Saran 86.2 percent of operational holdings shares only 47.1 percent of operated area. In Gopalgang 82.1 percent of holdings shares only 40.9 percent of operated area for the year 1970-71. In 1980-81 also, in West Champaran, 68.5 percent (small and marginal) holdings shares 46.7 percent (small and marginal) of operated area. In Saran 93.8 percent of holdings shares 69.5 percent of operated area. It reflects that the concentration of operated area is very less with respect to concentration of holdings. And obviously it results in low concentration of land holdings in these districts, with high amount of inequality in marginal and small size of holdings.

Table 4.10

BIHAR

Change in Value of Gini's co-efficient
1970-71 & 1980-81

| Value of Gini's co-efficient 1970-71 | | Value of Gini's co-efficient 1980-81 | |
|---|---|---|--|
| Category | Districts | Category | Districts |
| LOW ≤ 0.573 | Darbhanga Saran Gopalganj Madhubani Gaya Vaishali Nalanda Patna Siwan Samastipur Nawada Auragabad Santhal pargan Bagusarai | LOW ≤ 0.487 | W Champaran Saran Vaishali Darbhanga Patna Madhubani Nalanda Bagusarai Muzuffarpur Samastipur Nawada Siwan Gaya Munger Sitamarhi |
| MEDIUM $0.574 - 0.611$ | Muzuffarpur E Champaran Sahasra Palamu Bhojpur Katihar Ranchi W Champaran Giridih Hazaribagh Rohtas Sitamarhi Singhbhum | MEDIUM $0.488 - 0.565$ | Giridih E Champaran Gopalganj Auragabad Bhagalpur Dhanbad Ranchi Purnia Katihar Bhojpur Santhal pargan Bihar Hazaribagh Rohtas |
| HIGH > 0.611 | Dhanbad Munger Bhagalpur Purnia | HIGH > 0.565 | Sahasra Singhbhum Palamu |

BIHAR
CONCENTRATION OF LAND HOLDINGS
1971

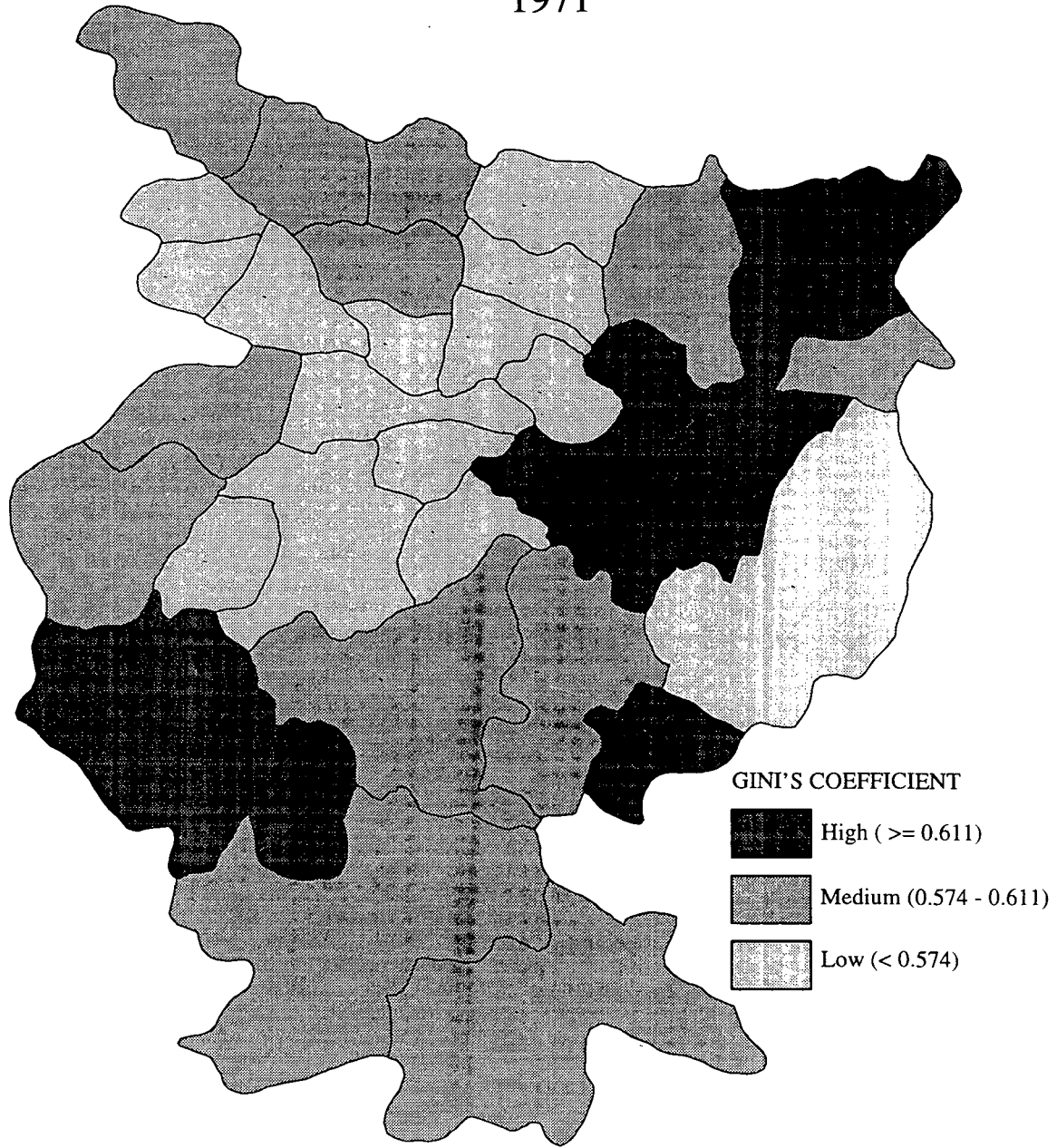


FIG 4.19

BIHAR
CONCENTRATION OF LAND HOLDINGS
1981

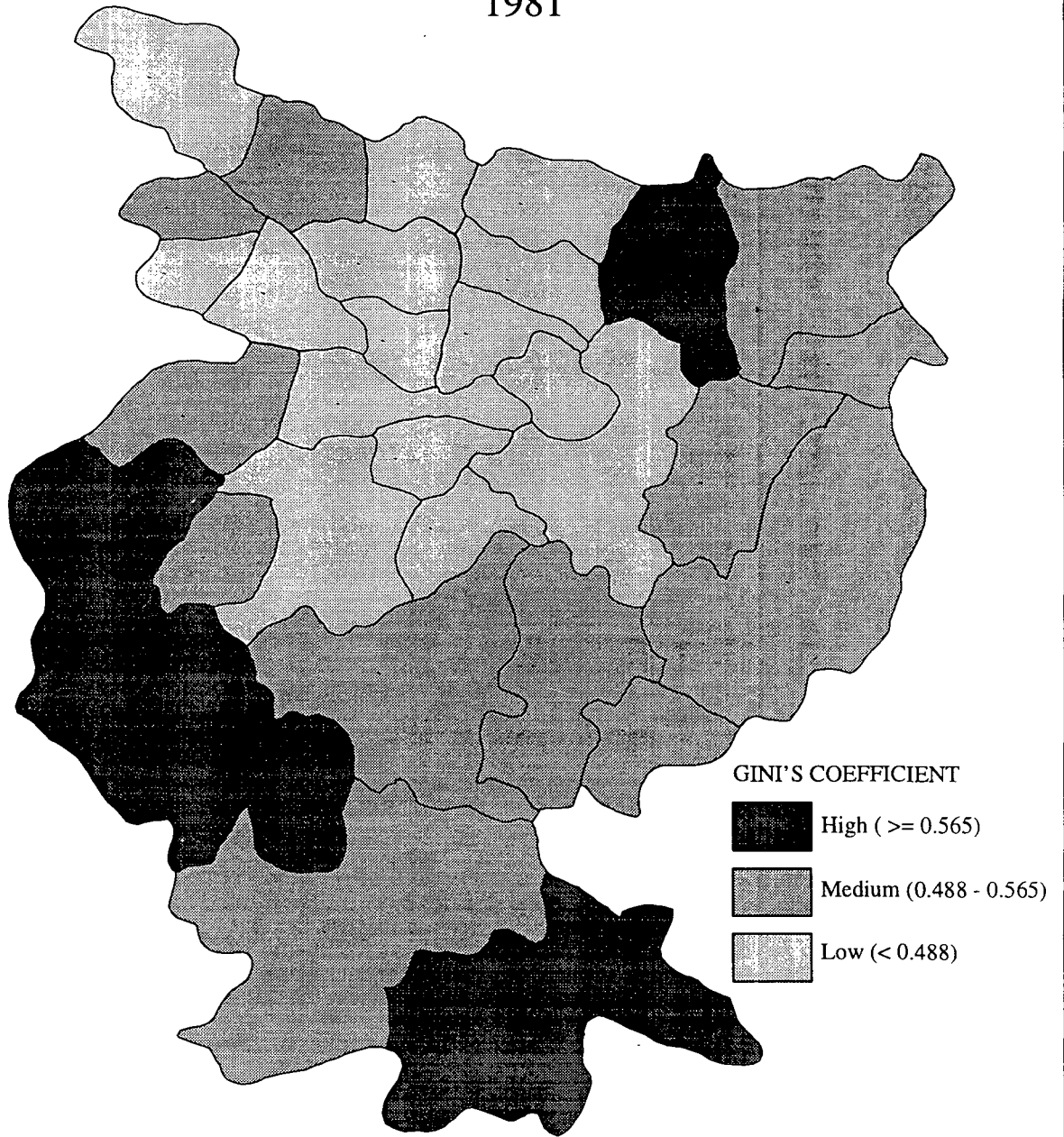


FIG 4.20

4.4 CHANGES IN OPERATIONAL HOLDINGS AND OPERATED AREA IN BIHAR, 1970-71 TO 1980-81

The change in the marginal size in Bihar was 74.8 percent between 1970-71 and 1980-81, while in operated area it is 60 percent, It indicates that both have increased from 1970-71 to 1980-81. In the case of small size holding the operational holdings has increased by 9.8 percent for the while the operated area by 5.4 percent for the decade. Both, operational holdings and operated area show a positive growth for the decade of the study. In semi-medium operational holdings the change has been 3.9 percent for Bihar from 1970-71 to 1980-81, but the operated area has increased at the rate of 2.3 percent during this period. In medium size operational holdings the change is negative, it has decreased to 13.2 percent. The operated area under medium class has decreased to 14.7 percent during the decade. The large size operational holding has declined to 49.6 percent, while the operated area has declined to 50.6 percent between 1970-71 to 1980-81.

In the case of all the size classes the operational holdings have increased by 48.2 percent, while the operated area has decreased by 3.6 percent. So, in small size classes like marginal, small and semi-medium the change is positive for both operational holdings and operated area for Bihar for. In case of big size of holdings like medium and large size its change has shown a decreasing trend. The reason for increasing trend of operational holdings and operated area in marginal, small and semi-medium size class may be attributed to the fact these size groups have broad base of population and under these size groups, operated area is comparatively less when compared to larger size groups. So, with the increase of population, the operational holdings will increase at a faster rate. Again about 80 percent of

population of Bihar is dependent upon agriculture and most of the population has a small share of land. There is a little temptation of keeping more land to these size groups, and any shift from large and semi-medium holders towards the direction of small size groups (marginal, small, semi-medium) leads to this situation. In this respect the operated area under this size group has also shown increasing trend. While the large size groups, base of population of operational holdings is comparatively smaller than the populations under small size groups. So, these people have better economic opportunities and this phenomenon attracts them towards other sectors of economy.

4.4a. District wise changes in marginal size operational holdings and operated area (<1 hectare)

All the districts of Bihar except West Champaran show positive change in operational holdings, but the rate of change is different for different districts. It is the highest for Gopalganj (220%), and the lowest for Singhbhum (1.2%), while the rate of change is negative in West Champaran i.e. (-68%). This shows that there is great change among the districts, for the operational holdings under marginal size.

The district of Gopalganj (222%) is followed by Muzaffarpur (210.7%), Purnia (134.8%), Vaishali (123.1%), Palamu (115.9%) and Sitamarhi (115.4%) with high positive change. While the lowest positive change is for Nawada (11.3%) followed by Aurangabad (17.2%), Samastipur (25.9%), and Ranchi (26.3%).

The reason for increase in the operational holdings in this size groups is high pressure of population.

The change in the operated area under marginal size is the highest in Purnia (116.7%). Palamu (-78.1) and Saharsha (-8.4%) in all the districts there is an increase in operated area. The highest positive increase in operated area has been Purnia district (116.7%), followed by Dhanbad (112.9%), Gaya (99.4%), Muzuffarpur (95%), Giridin (89%) and Bhagalpur (86.6%). While the lowest positive change has been recorded in Singhbhum (7.8%). Samastipur (14.4%), Nawada (15.7%) Madhubani (17.5%), Ranchi (18.1%) and Aurangabad (25.6%). The reason of increase in the area under this size group may be attributed to the shift of large size operated area towards this direction (Table 4.11 and 4.12).

4.4b. Change in small size operational holdings and operated area (1-2 hectare)

The change in operational holdings under small size group has shown showing positive as well as negative trends. Out of thirty one districts, thirteen districts have experienced change in a negative direction these are – Saharsha (-27.1%), Nawada (-21.5%), Munger (-17.6%), Vaishali (-13.7%), Katihar (-13.2%), Samastipur (-11.3%), Saran (-9.3%), Begusarai (-9.3%), Madhubani (-8%), West Champaran (-6.4%), Gopalganj (-5.9%), Singhbhum (-5.4%) and Aurangabad (-2.7%), while the positive change in area has been recorded in the districts. Bhagalpur (1%), Siwan (2%), Darbhanga (2.9%), East Champaran (3.3%), Muzuffarpur (9.2%), Ranchi (9.2%), Patna (10%), Bhojpur (10.5%), Santhal pargana (15.2%), Rohtas (17.1%), Nalanda (18.5%), Sitamarhi (19.5%), Hagzribagh (27.9%), Dhanbad (29.8%), Purnia (45.7%), Palamu (49.2%), Girilih (52.8%) and for Gaya 53.5%). The reason for increasing number of operational holdings in these districts may be due to the immense pressure of population and fragmentation of family holdings, other reason may be the lack of other activities except agriculture in these districts. Change in operated area under this

Table 4.11
Change in the Operational Holdings in Bihar (1970-71 to 1980-81)

| States & Districts | Marginal | Small | Semi - medium | Medium | Large | Total |
|-----------------------|----------|-------|---------------|--------|-------|-------|
| Bihar | 74.8 | 9.8 | 3.9 | -13.2 | -49.6 | 48.2 |
| Patna | 57.5 | 10.0 | -7.6 | -48.4 | -89.5 | 37.0 |
| Nalanda | 55.3 | 18.5 | -10.9 | -47.9 | -87.5 | 38.3 |
| Bhojpur | 52.1 | 10.5 | 9.2 | -14.1 | -52.5 | 33.7 |
| Rohtas | 57.5 | 17.1 | 21.8 | 6.0 | -42.8 | 37.6 |
| Gaya | 78.0 | 53.5 | 55.5 | 26.2 | -17.9 | 69.5 |
| Nawada | 11.3 | -21.5 | -42.9 | -53.3 | -86.8 | -13.0 |
| Aurangabad | 17.2 | -2.7 | -12.7 | -31.1 | -72.2 | 5.0 |
| Saran | 64.9 | -9.3 | -27.4 | -60.1 | -88.2 | 173.2 |
| Siwan | 75.5 | 2.0 | 7.9 | -20.5 | -56.1 | 49.5 |
| Gopalganj | 222.0 | -5.9 | -26.7 | -47.8 | -51.7 | 139.3 |
| W. Champaran | -68.6 | -6.4 | 4.9 | -20.1 | -60.3 | 37.7 |
| E. Champaran | 88.1 | 3.3 | 0.7 | -6.5 | -63.8 | 60.2 |
| Muzaffarpur | 210.7 | 9.2 | -13.7 | -48.0 | -81.1 | 153.7 |
| Sitamarhi | 115.4 | 19.5 | -6.1 | -30.6 | -69.1 | 87.5 |
| Vaishali | 123.1 | -13.7 | -33.9 | -52.5 | -72.5 | 87.9 |
| Darbhanga | 60.9 | 2.9 | -3.4 | -29.9 | -56.1 | 48.2 |
| Madhubani | 47.2 | -8.0 | -20.2 | -41.3 | -81.2 | 32.2 |
| Samastipur | 25.9 | -11.3 | -16.3 | -31.9 | -81.9 | 16.1 |
| Bagusarai | 95.5 | -9.3 | -16.0 | -27.1 | -67.3 | 62.5 |
| Sahasra | 41.1 | -27.1 | -24.3 | -38.7 | -78.6 | 15.3 |
| Purnia | 134.8 | 45.7 | 35.4 | 7.8 | -72.5 | 86.5 |
| Katihar | 48.0 | -13.2 | 3.9 | -0.4 | -57.9 | 26.3 |
| Munger | 42.0 | -17.6 | -18.2 | -49.5 | -76.0 | 19.7 |
| Bhagalpur | 92.4 | 0.1 | 4.6 | -22.2 | -67.9 | 56.4 |
| Santhal pargan | 48.2 | 15.2 | 3.4 | -13.9 | -43.2 | 21.4 |
| Hazaribagh | 74.3 | 27.9 | 7.0 | -3.9 | -46.0 | 44.5 |
| Giridih | 60.9 | 52.8 | 54.2 | -16.5 | -68.3 | 47.2 |
| Dhanbad | 75.1 | 29.8 | 15.0 | -24.2 | -57.1 | 43.4 |
| Ranchi | 26.3 | 9.2 | 2.4 | 4.3 | -24.5 | 12.0 |
| Palamu | 115.9 | 49.2 | 66.9 | 14.2 | -30.3 | 77.0 |
| Singhbhum | 1.2 | -5.4 | -0.8 | 3.6 | 4.2 | 0.1 |

Source: Agricultural Census of Bihar (1970-71 and 1980-81).

Table 4.12
Change in the Operated Area in Bihar (1970-71 to 1980-81)

| States & Districts | Marginal | Small | Semi - medium | Medium | Large | Total |
|-----------------------|----------|-------|---------------|--------|-------|-------|
| Bihar | 60.0 | 5.4 | 2.3 | -14.7 | -50.6 | -3.6 |
| Patna | 58.6 | 5.2 | -11.1 | -52.6 | -90.0 | -9.0 |
| Nalanda | 59.9 | 11.3 | -17.0 | -52.3 | -88.3 | -4.5 |
| Bhojpur | 48.5 | 1.8 | 8.0 | -17.6 | -53.1 | -3.6 |
| Rohtas | 60.6 | 13.3 | 19.4 | -2.8 | -42.7 | 2.4 |
| Gaya | 99.4 | 43.5 | 47.9 | 24.5 | -19.5 | 50.1 |
| Nawada | 15.7 | -24.8 | -43.1 | -57.1 | -89.5 | -35.6 |
| Auragabad | 25.6 | -7.3 | -13.3 | -31.2 | -51.0 | -15.1 |
| Saran | -83.1 | -92.1 | -92.7 | -96.4 | -98.9 | -91.0 |
| Siwan | 71.1 | -7.7 | -2.7 | -22.7 | -58.2 | 2.0 |
| Gopalganj | 64.2 | -7.4 | -27.4 | -48.5 | -26.8 | -7.7 |
| W Champaran | 54.0 | -7.9 | 9.2 | -24.6 | -56.2 | -8.0 |
| E Champaran | 61.8 | -12.3 | -3.0 | -13.1 | -60.6 | -3.2 |
| Muzuffarpur | 95.0 | 1.3 | -17.9 | -50.8 | -79.1 | -3.8 |
| Sitamarhi | 84.4 | -6.3 | -8.3 | -32.6 | -67.9 | -1.9 |
| Vaishali | 63.3 | -19.2 | -35.0 | -53.0 | -75.1 | -11.4 |
| Darbhanga | 40.0 | 0.2 | -3.8 | -26.6 | -58.2 | 3.4 |
| Madhubani | 17.5 | -15.9 | -22.7 | -43.2 | -83.7 | -20.5 |
| Samastipur | 14.4 | -16.6 | -17.5 | -34.3 | -83.5 | -21.1 |
| Bagusarai | 68.5 | -11.8 | -23.8 | -33.7 | -68.2 | -10.8 |
| Sahasra | -8.4 | -27.9 | -29.9 | -38.4 | -79.1 | -37.8 |
| Purnia | 116.7 | 266.9 | 33.5 | 1.8 | -78.5 | -2.3 |
| Katihar | 50.4 | -12.2 | 9.8 | 2.1 | -54.0 | -4.5 |
| Munger | 46.4 | 29.9 | -19.2 | -52.1 | -77.2 | -28.3 |
| Bhagalpur | 86.6 | -0.2 | -0.2 | -22.5 | -70.6 | -11.3 |
| Santhal pargan | 64.7 | 12.8 | 2.3 | -14.5 | -44.3 | -8.4 |
| Hazaribagh | 74.9 | 28.1 | 9.3 | -4.6 | -49.8 | 0.5 |
| Giridih | 89.0 | 63.8 | 58.9 | -20.3 | -66.3 | 8.8 |
| Dhanbad | 112.9 | 28.8 | 12.4 | -28.2 | -61.1 | -7.4 |
| Ranchi | 18.1 | 9.9 | 0.2 | 5.7 | -23.6 | 794.5 |
| Palamu | -78.1 | 42.5 | 35.3 | 13.2 | -32.5 | 11.8 |
| Singhbhum | 7.8 | -6.6 | -1.2 | 4.6 | 10.3 | 3.0 |

Source: Agricultural Census of Bihar (1970-71 and 1980-81).

size group has shown positive trends in some districts and negative trend for some other districts. Saran has the highest negative change (-92.1%), followed by Saharsha (-27.8%), Vaishali (-19.2%), Samastipur (-16.6%), Madhubani (-15.9%), East Champaran (-12.3%), Katihar (-12.3%), Katihar (-12.2%), Begusarai (-11.8%), West Champaran (-7.9%), Siwan (-7.7%), Gopalgang (-7.4%), Aurangabad (-7.3%), Singhbhum (-6.6%), Sitamarhi (-6.3%), and Bhagalpur (-0.2%). While the positive growth rate has been recorded in the remaining districts. The rate of change in positive direction is highest for the district Purnia (266.9%) followed by Giridih (63.8%), and Gaya (43.5%), and lowest for Muzuffarpur (1.3%), Bhojpur (1.8%) and Patna (5.2%) have also recorded low change.

4.4c. Change in the operational holdings and operated area under Semi-medium size (2-4 hectare)

The operational holdings under this size class show highest negative change for the district of Nawada (-42.9%), while the highest positive change has been recorded by district of Palamu (66.9%). Sixteen districts show negative change while the remaining fifteen have recorded positive change. Some of the districts with positive change regarding operational holdings are East Champaran (0.7%), Ranchi (2.4%), Santhal Pargana (3.4%), Katihar (3.9%), Bhagalpur (4.6%), West Champaran (4.9%), Hazaribag (7.0%), Siwan (7.9%), Bhojpur (9.2%), Dhanbad (15%), Rohtas (25.8%), Purnia (35.4%), Giridih (54.2%), and Gaya (55.5%). Most of the districts are the part of Chotanagpur plateau. Change in operated area under this group again shows positive and negative trends among the districts. Saran has highest negative change (-92.7%) followed by, Naivada (-43.1%), Vaishali (-35%), Saharasa (-29.9%), Gopalgang (-27.4%), Begusarai (-23.8%), Madhubani (-22.7%), Munger (-19.2%),

Muzuffarpur (-17.9%), Samastipur (-17.5%), Nalanda (-17%), Aurangabad (-13.3%), Patna (-11.1%), Sitamarhi (-8.3%), Darbhanga (-3.8%), East Champaran (-3%), Siwan (-2.7%), Singhbhum (-1.2%), and Bhagalpur (-0.2%). The positive change under operated area is for Ranchi (0.2%), Santhal Pargan (2.3%), Bhojpur (8.0%), West Champaran (9.2%), Hazaribagh (9.3%), Katihar (9.8%), Dhanba (12.4%), Rohtas (19.4%), Purnia (33.5%), Palamu (35.3%), Gaya (47.9%) and Giridih (58.9%).

4.4d. Change in Operational holdings and operated areas under medium size (4-10 hectare)

In most of the districts (twenty five) the change of operational holdings under medium size class indicates negative. It is positive only for six districts namely. Singhbhum (3.6%), Ranchi (4.3%), Rohtas (6.0%), Purnai (7.8%), Palamu (14.2%) and Gaya (26.2%). The highest negative change has been registered by Saran (-60.1%).

Area under this size class reflects a negative change over time for most of (twenty six) the districts, in Purnia (1.8%), Katihar (2.1%), Singhbhum (4.6%), Ranchi (5.7%), Palamu (13.2%) and Gaya (24.5%) show positive change.

4.4e. Change in operational holdings and operated area under large size (>10 hectare)

The operational holdings under large size indicates negative change for all the districts except one district Singhbhum (4.2%). The highest negative change is seen in Patna (-89.5%) Nalanda (-87.8%) and Nawadha (-86.8%). While the lowest negative change is seen in Gaya (17.9%) followed by Ranchi (14.5%) and Palamu (30.3%).

The operated area under the large size group indicates negative change for all the districts except one i.e. Singhbhum (10.3%). The highest negative change under area is for the district Saran (-98.9%), followed by Patna (-90.0%), and Nawada (-89.5%). This may be due to the division of family holdings and a shift of this area towards the marginal and small holdings.

4.5 INTER CLASS CONCENTRATION RATIO OF LAND HOLDINGS IN BIHAR

Inter Class Concentration Ratio gives us the idea of a holdings, in term of, more than or less than of its share under conditions of equal distribution of land. A value greater than hundred gives us the idea that distribution of land is greater than its share on that group. On the other hand less than hundred suggests the opposite.

The I.C.C.R. for the Bihar shows that in 1970-71 marginal (24.98) and small size group has lower extent of land than its share while semi-medium (182.98) medium (385.52) and large (1153.04) size have high proportion of land than its share. For 1980-81, the marginal group (35.15) is below its share, while small (137.27), semi-medium (276.71), medium (582.68), and large (1735.32) size has more than its share.

The value of the I.C.C.R. for the districts as a whole in relation to state as a whole (all size) reveals, that in 1970-71, eleven districts have greater proportion of land when compared to equal distribution. These districts are Singhbhum (105), Bhagalpur (106), Kaithar (107), Rohtas (126), Giridih (127), Purnial (128), Hazaribagh (131), Dhanbad (135.6) Santhal Pargana (161), Ranchi (207), and Palamu (289). In all these districts the concentration of large holdings are found in a greater amount. While the remaining districts have less share under equal distribution. In

most of these districts proportion of small and marginal holdings, with small share of operated area is prevailing (Table 4.13).

In 1980-81 in the 12 districts namely – Bhojpur (107), Purnia (111), Aurangabad (115), Katihar (124), Dhanbad (134), Hazaribag (140), Giridih (144), Rohtas (144), Singhbhum (167), Palamu (169), Santhal Pargana (187), and W. Champaran (268) greater proportion of land than its share under equal distribution exists.

In the remaining districts its share is below hundred which reflects the dominance of small and marginal operated area with little extent of land. The lowest I.C.C.R. value is for Muzuffarpur (39) for 1980-81.

4.6. DISTRICT WISE PATTERN OF I.C.C.R. IN BIHAR UNDER DIFFERENT SIZE CLASSES

According to the I.C.C.R. value for all the districts for the time periods 1970-71 and 1980-81, marginal size group of land has low proportion than its equal share, while the semi medium, medium, and large size of holdings have land greater than its share under the condition of equal distribution of land.

For both the year 1970-71 and 1980-81, Bhojpur, Rohtas, Aurangabad, West Champaran, Santhal Pargana, Palamu, and Singhbhum have less amount of share in small class. Only in the year 1970-71, small size group has low share of land under the condition of equal distribution in the following districts – Saharsha, Purnia, Kathiar, Munger, Bhagalpur, Hazaribag, Giridih and Dhanbad (Table 4.14).

Table 4.13
Inter Class Concentration Ratio of all size holdings in the districts of Bihar
(1970-71 and 1980-81)

| Value of ICCR | States and Districts | Value of ICCR 1970-71 | States and Districts | Value of ICCR 1980-81 |
|---------------|----------------------|--------------------------|-------------------------|--------------------------|
| 100< | Darbhanga | 53.7 | Muzuffarpur | 39.3 |
| | Vaishali | 60.1 | Vaishali | 43.6 |
| | Madhubani | 63.6 | Gopalganj | 47.5 |
| | Samastipur | 64.4 | Sitamarhi | 55.8 |
| | Saran | 65.8 | Darbhanga | 57.6 |
| | Nalanda | 66.2 | Madhubani | 58.7 |
| | Muzuffarpur | 67.3 | Ranchi | 64.4 |
| | Gaya | 67.4 | Saran | 65.5 |
| | Sitamarhi | 69.3 | Samastipur | 67.3 |
| | Patna | 76.2 | Nalanda | 70.3 |
| | Nawada | 78.2 | Bagusarai | 71.6 |
| | Siwan | 79.1 | E Champaran | 77.4 |
| | Gopalganj | 80.1 | Patna | 77.8 |
| | E Champaran | 83.4 | Nawada | 81.1 |
| | Bagusarai | 84.8 | Sahasra | 82.2 |
| | Munger | 86.1 | Siwan | 82.9 |
| | Auragabad | 93.1 | Munger | 84.1 |
| | Bhojpur | 96.7 | Gaya | 91.8 |
| | W Champaran | 97.5 | Bhagalpur | 93.0 |
| Sahasra | 99.3 | | | |
| 100> | Singhbhum | 105.7 | Bhojpur | 107.2 |
| | Bhagalpur | 106.8 | Purnia | 111.5 |
| | Katihar | 107.2 | Auragabad | 115.7 |
| | Rohtas | 126.6 | Katihar | 124.6 |
| | Giridih | 127.5 | Dhanbad | 134.7 |
| | Purnia | 128.4 | Hazaribagh | 140.6 |
| | Hazaribagh | 131.9 | Giridih | 144.9 |
| | Dhanbad | 135.7 | Rohtas | 144.9 |
| | Santhal pargan | 161.2 | Singhbhum | 167.1 |
| | Ranchi | 207.3 | Palamu | 169.4 |
| | Palamu | 290.0 | Santhal pargan | 187.0 |
| | | | W Champaran | 268.1 |

Source: Agricultural Census of Bihar (1970-71 and 1980-81).

Table 4.14
Inter Class Concentration Ratio of holdings under different size class in the districts of Bihar (1970-71 and 1980-81)

| | Marginal | | Small | | Semi - medium | | Medium | | Large | |
|----------------|----------|---------|---------|---------|---------------|---------|---------|---------|---------|---------|
| | 1970-71 | 1980-81 | 1970-71 | 1980-81 | 1970-71 | 1980-81 | 1970-71 | 1980-81 | 1970-71 | 1980-81 |
| Bihar | 24.98 | 35.15 | 93.00 | 137.27 | 182.98 | 276.71 | 385.52 | 582.68 | 1153.04 | 1735.52 |
| Patna | 33.30 | 50.50 | 120.89 | 174.09 | 239.21 | 346.71 | 489.63 | 675.90 | 1310.46 | 1871.69 |
| Nalanda | 33.39 | 49.77 | 140.51 | 191.07 | 270.70 | 365.36 | 555.05 | 736.26 | 1518.68 | 2070.93 |
| Bhojpur | 25.29 | 34.26 | 96.83 | 123.88 | 187.02 | 256.64 | 402.60 | 535.57 | 1050.32 | 1438.59 |
| Rohtas | 20.40 | 27.94 | 75.60 | 98.26 | 147.27 | 193.87 | 312.75 | 384.83 | 846.51 | 1137.96 |
| Gaya | 33.70 | 42.62 | 138.37 | 146.09 | 267.80 | 287.62 | 533.28 | 594.09 | 1605.67 | 1779.37 |
| Nawada | 32.47 | 52.31 | 131.23 | 169.57 | 252.98 | 340.37 | 518.17 | 642.18 | 1798.17 | 1934.64 |
| Auragabad | 26.40 | 34.98 | 99.63 | 117.37 | 191.88 | 235.41 | 385.93 | 476.54 | 1104.49 | 2411.89 |
| Saran | 38.92 | 120.91 | 138.87 | 366.76 | 270.00 | 822.33 | 564.34 | 1554.62 | 1583.01 | 4559.53 |
| Siwan | 31.91 | 45.60 | 117.68 | 156.06 | 230.66 | 304.87 | 472.22 | 673.42 | 1341.90 | 1874.25 |
| Gopalganj | 34.37 | 40.44 | 112.99 | 256.87 | 226.48 | 517.48 | 449.60 | 1024.79 | 1338.03 | 4682.52 |
| W Champaran | 28.56 | 209.92 | 96.40 | 142.01 | 186.66 | 290.80 | 403.26 | 569.67 | 1342.75 | 2218.52 |
| E Champaran | 30.36 | 33.01 | 111.67 | 119.79 | 219.24 | 267.06 | 459.34 | 539.62 | 1430.68 | 1968.76 |
| Muzuffarpur | 31.78 | 52.56 | 135.67 | 331.79 | 269.75 | 676.58 | 559.38 | 1395.09 | 1465.84 | 4269.86 |
| Sitamarhi | 30.12 | 48.44 | 160.53 | 236.39 | 266.73 | 489.17 | 568.16 | 1037.58 | 1566.24 | 3053.18 |
| Vaishali | 37.44 | 58.10 | 152.15 | 301.87 | 298.99 | 623.55 | 631.81 | 1325.19 | 1828.95 | 3516.51 |
| Darbhanga | 44.53 | 55.55 | 161.39 | 225.36 | 327.41 | 467.08 | 645.13 | 968.51 | 1967.62 | 2688.68 |
| Madhubani | 40.07 | 53.19 | 140.52 | 213.59 | 285.25 | 459.42 | 569.79 | 918.21 | 1947.82 | 2801.69 |
| Samastipur | 37.82 | 50.59 | 143.98 | 199.30 | 281.87 | 408.59 | 586.33 | 833.57 | 1889.45 | 2544.39 |
| Bagusarai | 32.61 | 51.21 | 109.03 | 192.99 | 219.11 | 362.12 | 472.50 | 783.51 | 1595.52 | 2829.54 |
| Saharasa | 28.08 | 33.82 | 90.93 | 166.71 | 177.82 | 305.57 | 372.71 | 693.95 | 1171.20 | 2117.56 |
| Purnia | 19.51 | 34.36 | 25.26 | 121.45 | 131.48 | 247.40 | 282.13 | 508.69 | 930.57 | 1387.99 |
| Katihar | 26.32 | 35.37 | 84.39 | 112.89 | 169.05 | 236.30 | 346.12 | 469.24 | 1136.65 | 1640.85 |
| Munger | 26.55 | 45.68 | 62.37 | 164.17 | 198.46 | 327.27 | 426.68 | 675.17 | 1453.62 | 2304.31 |
| Bhagalpur | 23.55 | 40.28 | 86.70 | 152.43 | 172.16 | 289.64 | 368.62 | 648.19 | 1250.78 | 2019.22 |
| Santhal pargan | 17.12 | 25.21 | 60.13 | 78.03 | 117.56 | 154.08 | 244.46 | 321.74 | 670.62 | 871.09 |
| Hazaribagh | 20.56 | 29.66 | 72.28 | 104.13 | 137.91 | 202.63 | 295.19 | 421.63 | 876.94 | 1172.99 |
| Giridih | 22.45 | 35.68 | 72.68 | 105.38 | 142.62 | 198.70 | 301.93 | 389.41 | 880.60 | 1265.92 |
| Dhanbad | 18.22 | 34.31 | 70.66 | 108.61 | 137.22 | 207.76 | 294.41 | 432.54 | 785.95 | 1103.33 |
| Ranchi | 129.90 | 151.93 | 433.11 | 545.19 | 860.96 | 105.34 | 1837.62 | 1991.54 | 5111.75 | 6472.71 |
| Palamu | 147.90 | 23.08 | 56.55 | 83.12 | 133.67 | 166.68 | 238.21 | 363.31 | 701.95 | 1047.26 |
| Singhbhum | 20.95 | 21.72 | 89.11 | 85.49 | 175.70 | 170.06 | 363.17 | 356.65 | 933.07 | 961.02 |

Source: Agricultural Census of Bihar (1970-71 and 1980-81).

4.7 CO-EFFICIENT OF VARIATION OF LAND HOLDING UNDER DIFFERENT SIZE CLASSES IN BIHAR

Table 4.15 reveals that co-efficient of variance for the number of land holdings for different size groups across the districts of Bihar has increased for the period 1970-71 to 1980-81. The higher size group shows higher value of C.V. for the same years (1970-71 and 1980-81). So, the table shows that large size group of holding has higher change while the smaller size group has low change and inequality. This is perhaps due to the fact that the number of large holders are numerically very small in most of the districts and any fluctuation in it changes the value of C.V. While the smaller size, i.e. marginal and small groups are numerically strong, (Approximately 50 percent of the number of operational holdings comes under marginal class in all districts). The fact that C.V. is very low for it means that this smaller size group has high amount of consistency in both the period. The change in the value of C.V. is very high in large groups when compared to other small groups. For the large group 108.88 (1970-71) to 162.95 (1980-81), for medium size group 77.29 (1970-71) to 96.88 (1980-81) for semi medium 51.03 (1970-71) to 58.02 (1980-81), for small 37.76 (1970-71) to 43.73 (1980-81), for marginal 34.27 to 45.69. The high and low amount of change is explained through above mentioned reason that lower size group has higher amount of numerical strength and large size has low numerical strength of number of holdings, any change in lower value effects the C.V. at a greater rate and change in high values is reflected in a smaller amount.

Table 4.15
Co-efficient of variation of land holdings across the districts under different size class in Bihar (1970-71 to 1980-81)

| Size class | | Number of Operational Holding 1970-71 | Area Under Operational Holding 1970- 71 | Number of Operational Holding 1980-81 | Area Under Operational Holding 1980-81 |
|----------------------|------------|---------------------------------------|---|---------------------------------------|--|
| Marginal | Mean | 157237.74 | 69076.03 | 261664.03 | 88850.48 |
| | Std. Dev | 53879.67 | 51932.54 | 119549.82 | 32498.45 |
| | C.V | 34.27 | 75.18 | 45.69 | 36.58 |
| Small | Mean | 35649.03 | 47833.10 | 38148.68 | 50747.58 |
| | Std. Dev | 13319.57 | 17708.76 | 16680.09 | 24959.35 |
| | C.V | 37.36 | 37.02 | 43.72 | 49.18 |
| Semi - medium | Mean | 29357.13 | 81831.65 | 29847.61 | 74465.00 |
| | Std. Dev | 14982.28 | 42894.77 | 17317.17 | 47085.28 |
| | C.V | 51.03 | 52.42 | 58.02 | 63.23 |
| Medium | Mean | 17517.90 | 102428.94 | 14793.42 | 72825.84 |
| | Std. Dev | 13540.15 | 82553.42 | 14331.39 | 65209.68 |
| | C.V | 77.29 | 80.60 | 96.88 | 89.54 |
| Large | Mean | 4358.22 | 76167.55 | 2150.52 | 27783.45 |
| | Std. Dev | 4745.27 | 82735.77 | 3504.35 | 31862.83 |
| | C.V | 108.88 | 108.62 | 162.95 | 114.68 |
| Total | Mean | 244121.19 | 377304.94 | 346607.48 | 314671.06 |
| | Std. Dev | 81301.18 | 230945.13 | 132468.74 | 176781.82 |
| | C.V | 33.30 | 61.21 | 38.22 | 56.18 |

Source: Agricultural Census of Bihar (1970-71 and 1980-81).

Area under operational holding shows that in 1971 except the marginal class, in all the increasing classes (marginal to large) has increasing value of C.V. and the pattern is same for 1980-81, including marginal class also. The trend of C.V. shows an increase for all the size groups except marginal class for the time period 1970-71 to 1980-81. It means the inequality among the size groups has increased over the time period, it may be due to the unevenness of area in some of the districts.

In the case of marginal size class it may be due to the fact that fragmentation in marginal holding has taken place in most of the districts with a greater rate in this duration and pattern of land distribution got homogenized in this size group.

CHAPTER 5

CONCLUSIONS

This study has examined the changes in various aspects of land distribution in rural India by using the state level data (N.S.S.) for 1971-72 to 1991-92. The discussion is mainly focused on the issues of landlessness, size distribution of operational holdings and land concentration in operated area, and changes in it over time.

A general feature of size distribution of operational holdings is that the percentage of holding decreases as the holding size increases. The percentage distribution of operational holdings reveals that, the decline is getting progressively steeper with each decade. The percentage of large medium and semi-medium holdings have been declining steadily since 1971-72. The decline is steepest for large holdings from 2.2 percent to 1.3 percent. The percentage of small holdings has also been declining since 1971-72. At the other end, one witnesses a great concentration of holdings in marginal category (including landless). It is 60.2 percent in 1971, and 62.9 percent in 1991-92.

The pressure of growing population on the limited land resources and the consequent division of holdings is clearly reflected in the percentage distribution of operational holdings in different size classes. It has been observed that the proportion of operational holdings in different size categories is not changing at the same rate or even in the same direction over time.

The percentage share of marginal (including landless) operational holdings in total operated area has increased from 9.26 percent to 15.6 percent during 1971-72 to 1991-92. The share of small holdings has also registered growth at a slower pace, and there is some growth in the share of semi medium holdings as well. At the other end, one sees a significant decline in the share of large holdings from 22.8 percent in 1970-71, to 15.2 percent in 1991-92.

The proportion of the marginal holdings (excluding landless) to total number of holdings has increased in nearly all the states. The increasing trend in the percentage of area operated by marginal households is also observed in most of the states. The factor contributing to these changes could be: –

- (1) Increase in the rural population coupled with breakdown of joint family system occurring mainly due to the operation of law of inheritance and development on individualistic feelings, and
- (2) Land reform measures, such as ceiling on land holdings tenancy reforms, Bhoodan movement etc.

The decline in the shares of the top two classes (medium and large) in both holdings and area operated, is noticeable in all the major states with varying rates. In all the major states, the pressure of population growth on the limited land is reflected in the progressive downward shift in the distribution of operational holdings over two decades. It is observed that, in general, there was a rise in the percentage of marginal (excluding landless) holdings and a decline in percentage of holdings in the semi-medium category upwards. Only in respect of small holdings some amount of interstate variations, both in magnitude and direction can be observed during the period 1971-72 to 1991-92. Contrary to the general declining trend, the percentage of

small holders underwent a steady rise in almost all the states except, Bihar, Himachal Pradesh, Jammu and Kashmir, Karnataka, Uttar Pradesh and West Bengal since, 1971-72 to 1991-92.

For the country as a whole, the level of inequality measured by the concentration ratio has increased during the past two decades. Over the states, however, the ratio has shown varying trends. In ten out of fifteen states there has been an upward trend in the concentration ratio since 1971-72. The rise was more pronounced for two most agriculturally developed states i.e. Punjab and Haryana. The ratio rose substantially in both the states in past two decades. It may be noticed that the concentration ratio in these two states were much higher than the national ratio in 1991-92. The only major state which has not registered a rise in the ratio during either of the two decades was Andhra Pradesh.

Historical perspective of land reforms in Bihar reflects that, it was the first state in independent India which came forward to implement the land reform measures. Bill for land reform was introduced in 1948 and finally passed in 1950. Between 1950-51 to 1960-61, a series of land reform laws were passed in Bihar to abolish the zamindari system and to give the right of property to the tiller. Some of these were: –

- (1) The Land Reform Act of 1950
- (2) The Tenancy Act of 1885 (Second Amendment 1955)
- (3) The Consolidation of Holding Act
- (4) The Fixation of Land Ceiling and Acquisition of Surplus Land Act

Besides, these two separate Acts, Chotanagpur Tenancy Act and Santhal Pargana Tenancy Act were also passed. These laws has special clauses applicable to

tribal zones of Chotanagpur and Santhal Pargana. All of the above mentioned laws were amended many times to protect the rights of tenants and to bring all the intermediaries under the purview of this act. Out of these Acts most important was the Abolition of Zamindari Act 1948 with the main objectives to get rid of middlemen and to bring government in to the direct touch of rayots. These Acts were challenged by some of the land lords.

In 1949, government of Bihar introduced more comprehensive Bill having adequate provisions for land reforms called Bihar Land Reform Bill, 1949. This Bill was also opposed by landlords who were members of legislature. But the Act was finally passed in May 1950, and was published as the Bihar Land Reform Act 1950. The main provisions of this Act were abolition of intermediary, and payment of compensation to intermediaries. Abolition of zamindari started from May 1952, but failed to bring the structural change in land distribution. There still existed many big land holders. Thus, there was a need to impose ceiling on land holdings. First Land Ceiling Bill was introduced in 1955 which was withdrawn in 1956. A second Ceiling Bill was introduced in 1959. The ceiling was laid between 20 acres to 60 acres depending upon the quality of land. But due to certain loopholes in the Bill the ceiling on landholdings could not release as much land as it was expected.

Even after the introduction of these measures to break the monopoly of land among a few hands there are still a few people who control most of the land. It is mainly due to various weaknesses among laws. Although Bihar was the first states in the country to pass the land reform legislation as early as 1950 but it became last states in enforcement of these laws. Also, the lack of political will (since most of the political leaders were themselves landlords) made the land reforms in Bihar a farce.

The distribution pattern of number of operational holdings under small size class (<2 hectare) reflects that in northern part of Bihar it has high concentration. It is due to the fertile alluvial soil, with availability of irrigation facilities, high concentration of population and high growth rate of population. All these phenomenon results into the fragmentation of family holdings and its number is increasing, while South Bihar (Chotanagpur region) has very low concentration of small size of holdings. It is due to the lack of above mentioned phenomenon in the southern part.

Operated area under small size class is highly concentrated in the districts of North Bihar Plain. It is due to the high fertility of soil, and fragmentation of family holdings. The southern districts of Bihar have low extent of area under small size class.

Distribution of number of operational holdings under medium size class is highly concentrated in the southern districts of Bihar. In the Northern districts of Bihar less number is under this size class. Distribution of area of operational holding under medium size class is highly concentrated in the southern districts of Bihar, while the area is less concentrated in the Northern districts of Bihar.

Distribution of number of operational holdings under large size class is highly concentrated in the districts of southern Bihar, while, the less concentration is found in the districts of North Bihar. In terms of area, high concentration is found in the southern districts of Bihar and less concentrated in the northern districts of Bihar.

The average size of holdings in all the size classes is continuously decreasing due to the high population pressure on the limited land. Decreasing trend of average size of holding is an indication of high dependency of economy upon agriculture.

Average size of holding is proportionately large in size for all size classes, mainly in the southern districts of Bihar due to the vast geographical area and low concentration of population. In northern districts of Bihar it is small for all the size groups compare to southern districts.

The variation of operational holdings and operated area under marginal size class has been increasing in a positive direction for the time period 1970-71 to 1980-81. Small size class of operational holdings and operated area have also been increasing in Bihar but the rate of increase is low in this group as compared to marginal size class. Semi medium size class also reflects positive growth for both area and holdings for the same period. Medium and large size of holdings indicates negative growth rate for both area and number of holdings for the same period. The rate of decline is very high in large size class for both, number and area.

Concentration pattern of land holdings through Gini's co-efficient, indicates that it has a decreasing trend. In 1970-71 it is 0.605 which has reduced to 0.557 for 1980-81. It means inequality in land holding is decreasing over the years. The districts wise pattern of Gini's coefficient has a decreasing trend for most of the districts. The southern districts of Bihar along with some north districts – Purnea (0.661), Bhagalpur (0.626), Sharasa (0.612) and Munger (0.618) have high concentration of land holdings. It is basically due to the fact that these districts have high proportion of operated area under large size class and the number of operational holdings is very low in this class, which results into high value of Gini's co-efficient. In the northern districts of Bihar (except above district) the concentration of area under large group is very small. In these districts marginal and small size of operational holdings constitutes the major proportion of the holdings. The proportion of area under these groups is very small.

The Inter Class Concentration Ratio for the districts shows that in 1970-71, marginal (24.98) and small (93) size group had lower extent of land than its share (as it is less than 100), while the semi-medium (182.98), medium(385.52), and large (1153.04) size had high proportion of land, under the condition of equal distribution. In 1980-81 the concentration of holdings among the size class changed. Only the marginal size group (35.15) is lower than its share. In the case of small (137.27) semi-medium (276.71), medium (582.68) and large (1735.32) size has more than its share.

The district wise pattern of I.C.C.R. value indicates that in all the districts the value is greater than hundred for semi-medium, medium, and large size of holdings for both the period 1970-71 and 1980-81. In marginal size of holdings it is less than hundred for all the districts for the same time period. In most of the districts the small size class has less amount of share of land in 1970-71, while it has changed a little in 1980-81 for some districts and its share has gone up more than hundred. It means its share indicates an increasing trend.

The co-efficient of variation for the number of operational holdings has increased for all the size groups from 1970-71 to 1980-81. The increasing size classes (marginal to large) has increasing value of C.V. It means, large size group has higher variation in terms of number of operational holdings.

To sum up, one observes very little success in the implementation of land reforms. It has been largely due to the over bearing sway of large landlords over rural society and their dominant influence over the states policies and administration.

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APPENDIX I

Concept and Definitions of Land Holdings

Explanations of the major concepts and definitions of important terms used relevant to this study are explained below:

Household:

A household was a group of persons normally living together and taking food from a common kitchen. However, a boarding house, a hotel or a hostel was treated as a cluster of households, where each individual boarder formed a separate household. If, however, a group of persons among them normally pooled their income for spending, they together were treated as forming a single household. Barracks of military and paramilitary forces, orphanages and vagrant houses were excluded from the scope of the survey.

Household Size:

The number of normally resident members of a household was its size. It included temporary stay-aways but excluded temporary visitors and guests.

Ownership of Land:

- (i) A plot of land was considered to be owned by the household if permanent heritable possession, with or without the right to transfer the title was vested in a member or members of the household. Land held in ownerlike possession under long term lease or assignment was also considered as land owned. Thus, in determining the ownership of a plot of land two basic concepts were involved, namely;
 - (a) Land owned by the household, i.e. land on which the household had the right of permanent heritable possession with or without the right to transfer the title, e.g. Pattadars, Bhumidars, Jenmons, Bhumiswamis, Rayat Sithibans, etc. A plot of land may be leased out to others by the owner without losing the right of permanent heritable possession.
 - (b) Land held under special conditions such that the holder did not possess the title of ownership but the right for long term possession of the land (for example, land possessed under perpetual lease, hereditary tenure and long term lease for 30 years or more) was considered as being held under ownerlike possession. In the states where land reform legislations have provided for full proprietorship to erstwhile tenants, they were considered as having ownerlike possession, even if they had not paid the full compensation.
- (ii) Sometimes a plot may be possessed by a tribal in accordance with traditional tribal rights from local chieftains or village/district council. Again, a plot may be occupied by a tenant for which the right of ownership vests in the community. In both the cases, the tribal or other individual (tenant) was taken as owner, for in all such cases, the holder had the owner like possession of land in question.

Lease of Land:

- (i) Land given to others on rent or free by owner of the land without surrendering the rights of permanent heritable title is defined as land leased out. It is defined as land leased in if it is taken by a household on rent or free without any right of permanent or heritable possession. The lease contract may be written or oral.
- (ii) Sometimes orchards and plantations are given to others for harvesting the produce for which the owner receives a payment in cash or kind. Such transactions were not treated as 'lease' for the purpose of the survey.

Otherwise Possessed Land:

This was understood to mean all public/institutional land possessed by the household without title of ownership or occupancy right. The possession was without the consent of the owner. Private land (i.e. land owned by the household sector) possessed by the household without title of ownership and occupancy right was not included in this category. All private land encroached upon by the household was treated as leased-in land.

Homestead Land:

- (i) Homestead of a household was defined as the dwelling house of the household together with the courtyard, compound, garden, out-house, place of worship, family graveyard, guest house, shop, workshop and offices for running household enterprises, tanks, wells, latrines, drains and boundary walls annexed to the dwelling house. All land coming under homestead was defined as homestead land.
- (ii) Homestead may constitute only a part of a plot. Sometimes, gardens, orchards or plantation, though adjacent to the homestead and lying within the boundary walls, may be located on a clearly distinct piece of land. In such cases, land under garden, orchard or plantation was not considered as homestead land.

Type of Land:

The classification by type of land was based on the usual status of the land and was meant for classifying land owned and land leased-in as on date of survey. The definitions of various classes of land relevant for the study are given below:

1. **Forest:** This included all area actually under forest or land so classed under any legal enactment or administered as forest, whether state owned or private. If any portion of such land was not actually wooded but put to raising of field crops, it was treated under net sown area and not under forest. All area under social and farm forestry will be included in this class.
2. **Orchards:** A piece of land put to production of horticulture crops, viz., fruits, nuts, dates, grapes etc. (other than those treated as plantation crops), was regarded as an orchard, if it was at least 0.10 hectare in size or had at least 12 trees planted on it. In the case of such fruit trees where distance between the trees was quite large, say more than six metres, as in the case of mangoes, the orchard was defined according to the minimum number of 12 trees planted in it. In cases where the distance was less than six metres as in the case of bananas,

papayas, grape vines etc., the orchard was defined on the basis of the minimum area of 1/10th of an hectare.

3. Plantations: Area devoted to production of plantation crops, viz., tea, coffee, cashewnut, pepper, coconut, cardamom, rubber, cocoa, arecanut, oil palm, clove and nutmeg, was treated as area under plantation. The size restriction given for orchards was also applicable for plantation for the purpose of the study.

4. Area Under Seasonal Crop: All land under net sown area not coming under orchards or plantations was taken as area under seasonal crops. Sometimes, net sown area consists of a piece of land put to a combination of the above three uses. In such cases, the use to which the major area of the piece of land was put was treated as the 'use' of the piece of land.

5. Land put to Non-Agricultural Uses: This included all land occupied by buildings, path etc. or under water (tanks, wells, canals etc.) and land put to uses other than agricultural uses. For the purpose of this study this class of land was further divided into two classes:

(a) **Water Bodies:** All land which are perennially under water was defined as water bodies, provided that no crop was raised on them.

(b) **Other Non-Agricultural Uses:** All land put to other non-agricultural uses, viz., buildings, roads, railways, paths etc., were classified under land put to other non-agricultural uses.

6. Other Uses: This included all land coming under rest of the classes of standard nine-fold classification, viz., "culturable waste", "miscellaneous tree crops and groves not included in net-sown area", "permanent pastures and other grazing land" and "barren and unculturable waste".

7. Irrigation: Irrigation was considered as a device of purposively providing land with water, other than rain water, by artificial means for crop production.

8. Terms of Lease: The various terms of lease on which the area was leased out to the lessee households were:

1. for fixed money
2. for fixed produce
3. for share of produce
4. for service contract
5. for share of produce together with other terms
6. under usufructuary mortgage
7. from relatives under no specified terms and
8. under other terms.

It may be noted here that leasehold under crop-sharing basis meant that the owner of land received a stipulated share of the produce but he did not participate in the work nor did

he manage or direct or organises the agricultural operations on the plot of land which he had leased out. Leasehold under service contract meant that an employer gave some land to an employee for cultivation in lieu of the services provided by him under the condition that the land could be retained so long as the employee continued to serve the employer and no other specific terms of lease was contracted. The term by which the mortgagor retained the ownership of land till the foreclosure of the deed but the possession of the land was transferred to the mortgagee would be considered as leasing-out under usufructuary mortgage. Sometimes land owned by a household is looked after and used by a close relative. For example, a person staying away from his village may own a piece of land in the village which is looked after and used by his brother's household. All such land owned by the household but looked after and used by some relative's household, under no contract of payment of any kind to the owner, was treated as leasing-out to 'relatives under no specified terms'. Lease on terms other than those specified for types (1) to (7) stated above was treated as 'under other terms'. All rent free leases, other than to (or from) 'relatives under no specified terms', was treated as lease 'under other terms'.

Operational Holdings

An operational holding is defined as a techno-economic unit used wholly or partly for agricultural production (defined below) and operated (directed/managed) by one person alone or with the assistance of others, without regard to title, size or location. The holding might consist of one or more parcels of land, provided they are located within the country and form part of the same technical unit. In the context of agricultural operations, a technical unit is a unit with more or less independent technical resources covering items like land, agricultural equipments and machinery, draught animals etc. Holdings used exclusively for livestock and poultry raising and for production of livestock and poultry products (primary) and/or pisciculture are considered as operational holdings whereas holdings put exclusively to uses other than agricultural production are not considered as operational holdings. Holdings operated by cooperative farms are also not considered as operational holdings.

Agricultural Production

The extended definition of agricultural production, as adopted in the survey, includes growing of field crops, fruits, grapes, nuts, seeds, tree nurseries (except those of forest trees), bulbs, vegetables and flower both in the open and in glass houses; production of coffee, tea, cocoa, rubber, forest production in parcels of land which form part of the enumeration holding and production of livestock and livestock products, poultry and poultry products, fish, honey, rabbits, fur-bearing animals, and silk-worm cocoons.

Individual and Joint Holdings

An operational holding managed by the members of a single household is taken as an individual holding and a holding managed by members of different households jointly is considered a joint holding.

Parcel

A parcel of an operational holding is a piece of land entirely surrounded by other operational holdings or by land not forming part of any operational holding. It might consist of one or more plots.

APPENDIX II

Table A.1: Distribution of Land Holdings in Bihar, 1970-71

| | No. of operational holdings 1970-71 | Percentage No. of operational holdings 1970-71 | Area under operational holding 1970-71 | Percentage Area under operational holding 1970-71 | Average size of holding Hect/Household 1970-71 | ICCR value |
|----------------|-------------------------------------|--|--|---|--|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Bihar | | | | | | |
| Marginal | 4874320 | 64.3 | 1844957 | 16.1 | 0.38 | 24.98 |
| Small | 1109122 | 14.6 | 1562826 | 13.6 | 1.41 | 93.00 |
| Semi - medium | 915069 | 12.1 | 2536781 | 22.1 | 2.77 | 182.98 |
| Medium | 543635 | 7.2 | 3175297 | 27.7 | 5.84 | 385.52 |
| Large | 135105 | 1.8 | 2360192 | 20.6 | 17.47 | 1153.04 |
| Total | 7577251 | 100.0 | 11480053 | 100.0 | 1.52 | 100.00 |
| Patna | | | | | | |
| Marginal | 158781 | 68.4 | 61001 | 22.8 | 0.38 | 33.30 |
| Small | 34644 | 14.9 | 48324 | 18.0 | 1.39 | 120.89 |
| Semi - medium | 25481 | 11.0 | 70332 | 26.3 | 2.76 | 239.21 |
| Medium | 11677 | 5.0 | 65972 | 24.6 | 5.65 | 489.63 |
| Large | 1463 | 0.6 | 22122 | 8.3 | 15.12 | 1310.46 |
| Total | 232046 | 100.0 | 267751 | 100.0 | 1.15 | 100.00 |
| Nalanda | | | | | | |
| Marginal | 137836 | 70.3 | 46155 | 23.5 | 0.33 | 33.39 |
| Small | 29447 | 15.0 | 41499 | 21.1 | 1.41 | 140.51 |
| Semi - medium | 20424 | 10.4 | 55451 | 28.2 | 2.71 | 270.70 |
| Medium | 7792 | 4.0 | 43377 | 22.0 | 5.57 | 555.05 |
| Large | 674 | 0.3 | 10266 | 5.2 | 15.23 | 1518.68 |
| Total | 196171 | 100.0 | 196748 | 100.0 | 1.00 | 100.00 |
| Bhojpur | | | | | | |
| Marginal | 149242 | 63.0 | 55316 | 15.9 | 0.37 | 25.29 |
| Small | 36792 | 15.5 | 52221 | 15.0 | 1.42 | 96.83 |
| Semi - medium | 29264 | 12.4 | 80224 | 23.1 | 2.74 | 187.02 |
| Medium | 18100 | 7.6 | 106814 | 30.8 | 5.90 | 402.60 |
| Large | 3413 | 1.4 | 52545 | 15.1 | 15.40 | 1050.32 |
| Total | 236813 | 100.0 | 347120 | 100.0 | 1.47 | 100.00 |
| Rohtas | | | | | | |
| Marginal | 123576 | 55.6 | 48366 | 11.3 | 0.39 | 20.40 |
| Small | 37157 | 16.7 | 53880 | 12.6 | 1.45 | 75.60 |
| Semi - medium | 32654 | 14.7 | 92243 | 21.6 | 2.82 | 147.27 |
| Medium | 23039 | 10.4 | 138209 | 32.4 | 6.00 | 312.75 |
| Large | 5757 | 2.6 | 93477 | 21.9 | 16.24 | 846.51 |
| Total | 222183 | 100.0 | 426175 | 100.0 | 1.92 | 100.00 |
| Gaya | | | | | | |
| Marginal | 212855 | 70.0 | 73295 | 23.6 | 0.34 | 33.70 |
| Small | 45923 | 15.1 | 64922 | 20.9 | 1.41 | 138.37 |
| Semi - medium | 31891 | 10.5 | 87253 | 28.1 | 2.74 | 267.80 |
| Medium | 12259 | 4.0 | 66791 | 21.5 | 5.45 | 533.28 |
| Large | 1120 | 0.4 | 18373 | 5.9 | 16.40 | 1605.67 |
| Total | 304048 | 100.0 | 310634 | 100.0 | 1.02 | 100.00 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------|--------|-------|--------|-------|-------|---------|
| Nawada | | | | | | |
| Marginal | 133883 | 65.8 | 46906 | 19.5 | 0.35 | 32.47 |
| Small | 32979 | 16.2 | 46689 | 19.4 | 1.42 | 131.23 |
| Semi - medium | 25080 | 12.3 | 68449 | 28.4 | 2.73 | 252.98 |
| Medium | 10277 | 5.1 | 57451 | 23.9 | 5.59 | 518.17 |
| Large | 1102 | 0.5 | 21378 | 8.9 | 19.40 | 1798.17 |
| Total | 203321 | 100.0 | 240873 | 100.0 | 1.18 | 100.00 |
| Auragabad | | | | | | |
| Marginal | 132919 | 60.4 | 49479 | 15.9 | 0.37 | 26.40 |
| Small | 35753 | 16.2 | 50223 | 16.2 | 1.40 | 99.63 |
| Semi - medium | 32626 | 14.8 | 88266 | 28.4 | 2.71 | 191.88 |
| Medium | 16622 | 7.6 | 90446 | 29.1 | 5.44 | 385.93 |
| Large | 2111 | 1.0 | 32874 | 10.6 | 15.57 | 1104.49 |
| Total | 220071 | 100.0 | 310288 | 100.0 | 1.41 | 100.00 |
| Saran | | | | | | |
| Marginal | 164397 | 72.6 | 63760 | 28.3 | 0.39 | 38.92 |
| Small | 30678 | 13.6 | 42453 | 18.8 | 1.38 | 138.87 |
| Semi - medium | 22370 | 9.9 | 60188 | 26.7 | 2.69 | 270.00 |
| Medium | 8070 | 3.6 | 45384 | 20.1 | 5.62 | 564.34 |
| Large | 876 | 0.4 | 13819 | 6.1 | 15.78 | 1583.01 |
| Total | 226391 | 100.0 | 225604 | 100.0 | 1.00 | 100.00 |
| Siwan | | | | | | |
| Marginal | 103378 | 65.8 | 39534 | 21.0 | 0.38 | 31.91 |
| Small | 27128 | 17.3 | 38258 | 20.3 | 1.41 | 117.68 |
| Semi - medium | 17606 | 11.2 | 48669 | 25.9 | 2.76 | 230.66 |
| Medium | 7892 | 5.0 | 44663 | 23.7 | 5.66 | 472.22 |
| Large | 1064 | 0.7 | 17111 | 9.1 | 16.08 | 1341.90 |
| Total | 157068 | 100.0 | 188235 | 100.0 | 1.20 | 100.00 |
| Gopalganj | | | | | | |
| Marginal | 95764 | 65.9 | 39919 | 22.6 | 0.42 | 34.37 |
| Small | 23571 | 16.2 | 32306 | 18.3 | 1.37 | 112.99 |
| Semi - medium | 17813 | 12.3 | 48936 | 27.8 | 2.75 | 226.48 |
| Medium | 7227 | 5.0 | 39413 | 22.4 | 5.45 | 449.60 |
| Large | 969 | 0.7 | 15727 | 8.9 | 16.23 | 1338.03 |
| Total | 145344 | 100.0 | 176301 | 100.0 | 1.21 | 100.00 |
| W Champan | | | | | | |
| Marginal | 155103 | 66.9 | 65400 | 19.1 | 0.42 | 28.56 |
| Small | 35224 | 15.2 | 50136 | 14.6 | 1.42 | 96.40 |
| Semi - medium | 23890 | 10.3 | 65841 | 19.2 | 2.76 | 186.66 |
| Medium | 13545 | 5.8 | 80646 | 23.6 | 5.95 | 403.26 |
| Large | 4047 | 1.7 | 80232 | 23.4 | 19.83 | 1342.75 |
| Total | 231809 | 100.0 | 342255 | 100.0 | 1.48 | 100.00 |
| E .Champan | | | | | | |
| Marginal | 188272 | 69.0 | 72228 | 21.0 | 0.38 | 30.36 |
| Small | 39776 | 14.6 | 56125 | 16.3 | 1.41 | 111.67 |
| Semi - medium | 27553 | 10.1 | 76330 | 22.1 | 2.77 | 219.24 |
| Medium | 13839 | 5.1 | 80324 | 23.3 | 5.80 | 459.34 |
| Large | 3298 | 1.2 | 59621 | 17.3 | 18.08 | 1430.68 |
| Total | 272738 | 100.0 | 344628 | 100.0 | 1.26 | 100.00 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------------|--------|-------|--------|-------|-------|---------|
| Muzuffarpur | | | | | | |
| Marginal | 208261 | 74.3 | 67524 | 23.6 | 0.32 | 31.78 |
| Small | 32764 | 11.7 | 45354 | 15.9 | 1.38 | 135.67 |
| Semi - medium | 24214 | 8.6 | 66647 | 23.3 | 2.75 | 269.75 |
| Medium | 12730 | 4.5 | 72658 | 25.4 | 5.71 | 559.38 |
| Large | 2256 | 0.8 | 33742 | 11.8 | 14.96 | 1465.84 |
| Total | 280225 | 100.0 | 285925 | 100.0 | 1.02 | 100.00 |
| Sitamarhi | | | | | | |
| Marginal | 177854 | 76.4 | 55319 | 22.6 | 0.31 | 30.12 |
| Small | 22668 | 9.7 | 37574 | 15.4 | 1.66 | 160.53 |
| Semi - medium | 19292 | 8.3 | 53132 | 21.7 | 2.75 | 266.73 |
| Medium | 10800 | 4.6 | 63359 | 25.9 | 5.87 | 568.16 |
| Large | 2171 | 0.9 | 35110 | 14.4 | 16.17 | 1566.24 |
| Total | 232785 | 100.0 | 244494 | 100.0 | 1.05 | 100.00 |
| | 232785 | | | | | |
| Vaishali | | | | | | |
| Marginal | 148182 | 76.5 | 50542 | 28.7 | 0.34 | 37.44 |
| Small | 22777 | 11.8 | 31568 | 17.9 | 1.39 | 152.15 |
| Semi - medium | 15354 | 7.9 | 41818 | 23.7 | 2.72 | 298.99 |
| Medium | 6338 | 3.3 | 36478 | 20.7 | 5.76 | 631.81 |
| Large | 958 | 0.5 | 15961 | 9.0 | 16.66 | 1828.95 |
| Total | 193609 | 100.0 | 176367 | 100.0 | 0.91 | 100.00 |
| Darbhanga | | | | | | |
| Marginal | 199977 | 81.0 | 72512 | 36.1 | 0.36 | 44.53 |
| Small | 22430 | 9.1 | 29478 | 14.7 | 1.31 | 161.39 |
| Semi - medium | 16034 | 6.5 | 42749 | 21.3 | 2.67 | 327.41 |
| Medium | 7318 | 3.0 | 38444 | 19.1 | 5.25 | 645.13 |
| Large | 1114 | 0.5 | 17849 | 8.9 | 16.02 | 1967.62 |
| Total | 246873 | 100.0 | 201030 | 100.0 | 0.81 | 100.00 |
| Madhubani | | | | | | |
| Marginal | 257476 | 77.5 | 99391 | 31.0 | 0.39 | 40.07 |
| Small | 34935 | 10.5 | 47293 | 14.8 | 1.35 | 140.52 |
| Semi - medium | 26823 | 8.1 | 73708 | 23.0 | 2.75 | 285.25 |
| Medium | 11137 | 3.4 | 61133 | 19.1 | 5.49 | 569.79 |
| Large | 2064 | 0.6 | 38730 | 12.1 | 18.76 | 1947.82 |
| Total | 332435 | 100.0 | 320255 | 100.0 | 0.96 | 100.00 |
| Samastipur | | | | | | |
| Marginal | 219166 | 78.1 | 80872 | 29.5 | 0.37 | 37.82 |
| Small | 29377 | 10.5 | 41273 | 15.1 | 1.40 | 143.98 |
| Semi - medium | 20054 | 7.1 | 55158 | 20.1 | 2.75 | 281.87 |
| Medium | 9802 | 3.5 | 56081 | 20.5 | 5.72 | 586.33 |
| Large | 2192 | 0.8 | 40414 | 14.8 | 18.44 | 1889.45 |
| Total | 280591 | 100.0 | 273798 | 100.0 | 0.98 | 100.00 |
| Bagusarai | | | | | | |
| Marginal | 95983 | 70.6 | 40213 | 23.0 | 0.42 | 32.61 |
| Small | 17999 | 13.2 | 25209 | 14.4 | 1.40 | 109.03 |
| Semi - medium | 14042 | 10.3 | 39524 | 22.6 | 2.81 | 219.11 |
| Medium | 6455 | 4.7 | 39180 | 22.4 | 6.07 | 472.50 |
| Large | 1490 | 1.1 | 30539 | 17.5 | 20.50 | 1595.52 |
| Total | 135969 | 100.0 | 174665 | 100.0 | 1.28 | 100.00 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------|--------|-------|--------|-------|-------|---------|
| Sahasra | | | | | | |
| Marginal | 231855 | 64.1 | 97900 | 18.0 | 0.42 | 28.08 |
| Small | 51653 | 14.3 | 70638 | 13.0 | 1.37 | 90.93 |
| Semi - medium | 46468 | 12.9 | 124272 | 22.9 | 2.67 | 177.82 |
| Medium | 25331 | 7.0 | 141990 | 26.1 | 5.61 | 372.71 |
| Large | 6180 | 1.7 | 108856 | 20.0 | 17.61 | 1171.20 |
| Total | 361487 | 100.0 | 543656 | 100.0 | 1.50 | 100.00 |
| Purnia | | | | | | |
| Marginal | 185484 | 56.1 | 75864 | 11.8 | 0.41 | 19.51 |
| Small | 56979 | 17.2 | 30173 | 4.7 | 0.53 | 25.26 |
| Semi - medium | 46106 | 13.9 | 127062 | 19.7 | 2.76 | 131.48 |
| Medium | 30497 | 9.2 | 180341 | 28.0 | 5.91 | 282.13 |
| Large | 11794 | 3.6 | 230037 | 35.7 | 19.50 | 930.57 |
| Total | 330860 | 100.0 | 643477 | 100.0 | 1.94 | 100.00 |
| Katihar | | | | | | |
| Marginal | 95910 | 61.2 | 40990 | 16.1 | 0.43 | 26.32 |
| Small | 27564 | 17.6 | 37775 | 14.8 | 1.37 | 84.39 |
| Semi - medium | 19143 | 12.2 | 52551 | 20.6 | 2.75 | 169.05 |
| Medium | 10714 | 6.8 | 60218 | 23.7 | 5.62 | 346.12 |
| Large | 3413 | 2.2 | 62996 | 24.7 | 18.46 | 1136.65 |
| Total | 156744 | 100.0 | 254530 | 100.0 | 1.62 | 100.00 |
| Marginal | | | | | | |
| Marginal | 252950 | 67.2 | 92952 | 18.9 | 0.37 | 26.55 |
| Small | 57228 | 15.2 | 49407 | 10.1 | 0.86 | 62.37 |
| Semi - medium | 39158 | 10.4 | 107573 | 21.9 | 2.75 | 198.46 |
| Medium | 21186 | 5.6 | 125132 | 25.5 | 5.91 | 426.68 |
| Large | 5755 | 1.5 | 115801 | 23.6 | 20.12 | 1453.62 |
| Total | 376277 | 100.0 | 490865 | 100.0 | 1.30 | 100.00 |
| Bhagalpur | | | | | | |
| Marginal | 166764 | 63.6 | 63531 | 15.0 | 0.38 | 23.55 |
| Small | 41780 | 15.9 | 58602 | 13.8 | 1.40 | 86.70 |
| Semi - medium | 30128 | 11.5 | 83912 | 19.8 | 2.79 | 172.16 |
| Medium | 17828 | 6.8 | 106318 | 25.1 | 5.96 | 368.62 |
| Large | 5511 | 2.1 | 111515 | 26.3 | 20.23 | 1250.78 |
| Total | 262011 | 100.0 | 423878 | 100.0 | 1.62 | 100.00 |
| Santhal pargana | | | | | | |
| Marginal | 177778 | 44.9 | 74311 | 7.7 | 0.42 | 17.12 |
| Small | 68122 | 17.2 | 100035 | 10.3 | 1.47 | 60.13 |
| Semi - medium | 77635 | 19.6 | 222894 | 23.1 | 2.87 | 117.56 |
| Medium | 59157 | 14.9 | 353178 | 36.5 | 5.97 | 244.46 |
| Large | 13217 | 3.3 | 216467 | 22.4 | 16.38 | 670.62 |
| Total | 395905 | 100.0 | 966885 | 100.0 | 2.44 | 100.00 |
| Hazaribagh | | | | | | |
| Marginal | 102389 | 54.6 | 42078 | 11.2 | 0.41 | 20.56 |
| Small | 30046 | 16.0 | 43410 | 11.6 | 1.44 | 72.28 |
| Semi - medium | 30616 | 16.3 | 84398 | 22.5 | 2.76 | 137.91 |
| Medium | 19218 | 10.3 | 113395 | 30.3 | 5.90 | 295.19 |
| Large | 5219 | 2.8 | 91484 | 24.4 | 17.53 | 876.94 |
| Total | 187488 | 100.0 | 374765 | 100.0 | 2.00 | 100.00 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------|--------|-------|---------|-------|-------|---------|
| Giridih | | | | | | |
| Marginal | 87337 | 56.5 | 37873 | 12.7 | 0.43 | 22.45 |
| Small | 24339 | 15.8 | 34170 | 11.5 | 1.40 | 72.68 |
| Semi - medium | 22902 | 14.8 | 63092 | 21.1 | 2.75 | 142.62 |
| Medium | 15675 | 10.1 | 91419 | 30.6 | 5.83 | 301.93 |
| Large | 4223 | 2.7 | 71832 | 24.1 | 17.01 | 880.60 |
| Total | 154476 | 100.0 | 298386 | 100.0 | 1.93 | 100.00 |
| Dhanbad | | | | | | |
| Marginal | 43819 | 54.5 | 16409 | 9.9 | 0.37 | 18.22 |
| Small | 12601 | 15.7 | 18304 | 11.1 | 1.45 | 70.66 |
| Semi - medium | 12382 | 15.4 | 34930 | 21.1 | 2.82 | 137.22 |
| Medium | 9021 | 11.2 | 54600 | 33.1 | 6.05 | 294.41 |
| Large | 2535 | 3.2 | 40960 | 24.8 | 16.16 | 785.95 |
| Total | 80358 | 100.0 | 165203 | 100.0 | 2.06 | 100.00 |
| Ranchi | | | | | | |
| Marginal | 149637 | 42.0 | 64916 | 5.8 | 0.43 | 129.90 |
| Small | 54488 | 15.3 | 78812 | 7.0 | 1.45 | 433.11 |
| Semi - medium | 66377 | 18.6 | 190852 | 17.1 | 2.88 | 860.96 |
| Medium | 62268 | 17.5 | 382134 | 34.1 | 6.14 | 1837.62 |
| Large | 23576 | 6.6 | 402472 | 36.0 | 17.07 | 5111.75 |
| Total | 356346 | 100.0 | 1119186 | 100.0 | 3.14 | 100.00 |
| Palamu | | | | | | |
| Marginal | 86685 | 51.1 | 329339 | 44.2 | 3.80 | 147.90 |
| Small | 28127 | 16.6 | 40858 | 5.5 | 1.45 | 56.55 |
| Semi - medium | 23475 | 13.8 | 80606 | 10.8 | 3.43 | 133.67 |
| Medium | 22619 | 13.3 | 138413 | 18.6 | 6.12 | 238.21 |
| Large | 8625 | 5.1 | 155524 | 20.9 | 18.03 | 701.95 |
| Total | 169531 | 100.0 | 744740 | 100.0 | 4.39 | 100.00 |
| Singhbhum | | | | | | |
| Marginal | 230857 | 59.8 | 77462 | 12.5 | 0.34 | 20.95 |
| Small | 60171 | 15.6 | 85857 | 13.9 | 1.43 | 89.11 |
| Semi - medium | 53216 | 13.8 | 149721 | 24.2 | 2.81 | 175.70 |
| Medium | 34622 | 9.0 | 201336 | 32.6 | 5.82 | 363.17 |
| Large | 6918 | 1.8 | 103360 | 16.7 | 14.94 | 933.07 |
| Total | 385784 | 100.0 | 617736 | 100.0 | 1.60 | 100.00 |

Source: Agricultural Census of Bihar, (1970-71).

Marginal: <1 hectare.

Small: 1-2 hectare.

Semi-Medium: 2-4 hectare.

Medium: 4-10 hectare.

Large: >10 hectare.

Table A.2: Distribution of Land Holdings in Bihar, 1980-81

| States and Districts | No. of operational holdings 1980-81 | Percentage No. of operational holdings 1980-81 | Area under operational holding 1980-81 | Percentage Area under operational holding 1980-81 | Average size of holding Hect/House hold 1980-81 | ICCR value |
|----------------------|-------------------------------------|--|--|---|---|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Bihar | | | | | | |
| Marginal | 8520649 | 75.9 | 2951718 | 26.7 | 0.35 | 35.15 |
| Small | 1217881 | 10.8 | 1647634 | 14.9 | 1.35 | 137.27 |
| Semi - medium | 951198 | 8.5 | 2594104 | 23.4 | 2.73 | 100.00 |
| Medium | 471770 | 4.2 | 2709240 | 24.5 | 5.74 | 276.71 |
| Large | 68104 | 0.6 | 1164911 | 10.5 | 17.10 | 582.68 |
| Total | 11229602 | 100.0 | 11067607 | 100.0 | 0.99 | 1735.52 |
| Patna | | | | | | |
| Marginal | 250048 | 78.7 | 96776 | 39.7 | 0.39 | 50.50 |
| Small | 38093 | 12.0 | 50824 | 20.9 | 1.33 | 100.00 |
| Semi - medium | 23544 | 7.4 | 62559 | 25.7 | 2.66 | 174.09 |
| Medium | 6031 | 1.9 | 31240 | 12.8 | 5.18 | 346.71 |
| Large | 154 | 0.0 | 2209 | 0.9 | 14.34 | 675.90 |
| Total | 317870 | 100.0 | 243608 | 100.0 | 0.77 | 1871.69 |
| Nalanda | | | | | | |
| Marginal | 214115 | 78.9 | 73813 | 39.3 | 0.34 | 49.77 |
| Small | 34901 | 12.9 | 46193 | 24.6 | 1.32 | 100.00 |
| Semi - medium | 18195 | 6.7 | 46049 | 24.5 | 2.53 | 191.07 |
| Medium | 4059 | 1.5 | 20701 | 11.0 | 5.10 | 365.36 |
| Large | 84 | 0.0 | 1205 | 0.6 | 14.35 | 736.26 |
| Total | 271354 | 100.0 | 187966 | 100.0 | 0.69 | 2070.93 |
| Bhojpur | | | | | | |
| Marginal | 226941 | 71.7 | 82124 | 24.5 | 0.36 | 34.26 |
| Small | 40642 | 12.8 | 53187 | 15.9 | 1.31 | 123.88 |
| Semi - medium | 31955 | 10.1 | 86632 | 25.9 | 2.71 | 100.00 |
| Medium | 15551 | 4.9 | 87982 | 26.3 | 5.66 | 256.64 |
| Large | 1620 | 0.5 | 24619 | 7.4 | 15.20 | 535.57 |
| Total | 316709 | 100.0 | 334563 | 100.0 | 1.06 | 1438.59 |
| Rohtas | | | | | | |
| Marginal | 194663 | 63.7 | 77689 | 17.8 | 0.40 | 27.94 |
| Small | 43493 | 14.2 | 61045 | 14.0 | 1.40 | 98.26 |
| Semi - medium | 39765 | 13.0 | 110122 | 25.2 | 2.77 | 100.00 |
| Medium | 24430 | 8.0 | 134294 | 30.8 | 5.50 | 193.87 |
| Large | 3294 | 1.1 | 53544 | 12.3 | 16.26 | 384.83 |
| Total | 305645 | 100.0 | 436594 | 100.0 | 1.43 | 1137.96 |
| Gaya | | | | | | |
| Marginal | 378831 | 73.5 | 146121 | 31.3 | 0.39 | 42.62 |
| Small | 70492 | 13.7 | 93193 | 20.0 | 1.32 | 100.00 |
| Semi - medium | 49581 | 9.6 | 129051 | 27.7 | 2.60 | 146.09 |
| Medium | 15465 | 3.0 | 83143 | 17.8 | 5.38 | 287.62 |
| Large | 919 | 0.2 | 14798 | 3.2 | 16.10 | 594.09 |
| Total | 515288 | 100.0 | 466306 | 100.0 | 0.90 | 1779.37 |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------------|---|--------|-------|--------|-------|-------|---------|
| Nawada | | | | | | | |
| Marginal | | 149063 | 76.7 | 54283 | 35.0 | 0.36 | 52.31 |
| Small | | 25905 | 13.3 | 35107 | 22.6 | 1.36 | 100.00 |
| Semi - medium | | 14320 | 7.4 | 38955 | 25.1 | 2.72 | 169.57 |
| Medium | | 4803 | 2.5 | 24651 | 15.9 | 5.13 | 340.37 |
| Large | | 145 | 0.1 | 2242 | 1.4 | 15.46 | 642.18 |
| Total | | 194236 | 100.0 | 155238 | 100.0 | 0.80 | 1934.64 |
| | | | | | | | |
| Auragabad | | | | | | | |
| Marginal | | 155766 | 67.4 | 62149 | 23.6 | 0.40 | 34.98 |
| Small | | 34789 | 15.1 | 46573 | 17.7 | 1.34 | 117.37 |
| Semi - medium | | 28485 | 12.3 | 76484 | 29.0 | 2.69 | 100.00 |
| Medium | | 11451 | 5.0 | 62242 | 23.6 | 5.44 | 235.41 |
| Large | | 586 | 0.3 | 16121 | 6.1 | 27.51 | 476.54 |
| Total | | 231077 | 100.0 | 263569 | 100.0 | 1.14 | 2411.89 |
| | | | | | | | |
| Saran | | | | | | | |
| Marginal | | 271047 | 85.1 | 10747 | 53.0 | 0.04 | 120.91 |
| Small | | 27838 | 8.7 | 3348 | 16.5 | 0.12 | 100.00 |
| Semi - medium | | 16243 | 5.1 | 4380 | 21.6 | 0.27 | 366.76 |
| Medium | | 3219 | 1.0 | 1641 | 8.1 | 0.51 | 822.33 |
| Large | | 103 | 0.0 | 154 | 0.8 | 1.50 | 1554.62 |
| Total | | 318450 | 100.0 | 20280 | 100.0 | 0.06 | 4559.53 |
| | | | | | | | |
| Siwan | | | | | | | |
| Marginal | | 181440 | 77.3 | 67628 | 35.2 | 0.37 | 45.60 |
| Small | | 27673 | 11.8 | 35298 | 18.4 | 1.28 | 100.00 |
| Semi - medium | | 18999 | 8.1 | 47343 | 24.7 | 2.49 | 156.06 |
| Medium | | 6274 | 2.7 | 34533 | 18.0 | 5.50 | 304.87 |
| Large | | 467 | 0.2 | 7154 | 3.7 | 15.32 | 673.42 |
| Total | | 234853 | 100.0 | 191956 | 100.0 | 0.82 | 1874.25 |
| | | | | | | | |
| Gopalganj | | | | | | | |
| Marginal | | 308339 | 88.7 | 65531 | 40.3 | 0.21 | 40.44 |
| Small | | 22169 | 6.4 | 29930 | 18.4 | 1.35 | 100.00 |
| Semi - medium | | 13054 | 3.8 | 35505 | 21.8 | 2.72 | 256.87 |
| Medium | | 3772 | 1.1 | 20317 | 12.5 | 5.39 | 517.48 |
| Large | | 468 | 0.1 | 11518 | 7.1 | 24.61 | 1024.79 |
| Total | | 347802 | 100.0 | 162801 | 100.0 | 0.47 | 4682.52 |
| | | | | | | | |
| W. Champaran | | | | | | | |
| Marginal | | 48650 | 40.8 | 100730 | 32.0 | 2.07 | 209.92 |
| Small | | 32961 | 27.7 | 46169 | 14.7 | 1.40 | 142.01 |
| Semi - medium | | 25060 | 21.0 | 71877 | 22.8 | 2.87 | 100.00 |
| Medium | | 10824 | 9.1 | 60817 | 19.3 | 5.62 | 290.80 |
| Large | | 1606 | 1.3 | 35142 | 11.2 | 21.88 | 569.67 |
| Total | | 119101 | 100.0 | 314735 | 100.0 | 2.64 | 2218.52 |
| | | | | | | | |
| E. Champaran | | | | | | | |
| Marginal | | 354059 | 81.0 | 116858 | 35.0 | 0.33 | 33.01 |
| Small | | 41104 | 9.4 | 49239 | 14.8 | 1.20 | 76.31 |
| Semi - medium | | 27737 | 6.3 | 74074 | 22.2 | 2.67 | 119.79 |
| Medium | | 12942 | 3.0 | 69837 | 20.9 | 5.40 | 267.06 |
| Large | | 1194 | 0.3 | 23507 | 7.0 | 19.69 | 539.62 |
| Total | | 437036 | 100.0 | 333515 | 100.0 | 0.76 | 1968.76 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------------|--------|-------|--------|-------|-------|---------|
| Muzuffarpur | | | | | | |
| Marginal | 647163 | 91.0 | 131660 | 47.9 | 0.20 | 52.56 |
| Small | 35774 | 5.0 | 45939 | 16.7 | 1.28 | 100.00 |
| Semi - medium | 20888 | 2.9 | 54697 | 19.9 | 2.62 | 331.79 |
| Medium | 6619 | 0.9 | 35739 | 13.0 | 5.40 | 676.58 |
| Large | 426 | 0.1 | 7040 | 2.6 | 16.53 | 1395.09 |
| Total | 710870 | 100.0 | 275131 | 100.0 | 0.39 | 4269.86 |
| Sitamarhi | | | | | | |
| Marginal | 383043 | 87.8 | 102009 | 42.5 | 0.27 | 48.44 |
| Small | 27094 | 6.2 | 35215 | 14.7 | 1.30 | 100.00 |
| Semi - medium | 18119 | 4.2 | 48732 | 20.3 | 2.69 | 236.39 |
| Medium | 7490 | 1.7 | 42729 | 17.8 | 5.70 | 489.17 |
| Large | 671 | 0.2 | 11264 | 4.7 | 16.79 | 1037.58 |
| Total | 436417 | 100.0 | 239949 | 100.0 | 0.55 | 3053.18 |
| Vaishali | | | | | | |
| Marginal | 330560 | 90.9 | 82549 | 52.8 | 0.25 | 58.10 |
| Small | 19661 | 5.4 | 25509 | 16.3 | 1.30 | 100.00 |
| Semi - medium | 10145 | 2.8 | 27189 | 17.4 | 2.68 | 301.87 |
| Medium | 3010 | 0.8 | 17144 | 11.0 | 5.70 | 623.55 |
| Large | 263 | 0.1 | 3975 | 2.5 | 15.11 | 1325.19 |
| Total | 363739 | 100.0 | 156336 | 100.0 | 0.43 | 3516.51 |
| Darbhanga | | | | | | |
| Marginal | 321790 | 87.9 | 101551 | 48.8 | 0.32 | 55.55 |
| Small | 23082 | 6.3 | 29550 | 14.2 | 1.28 | 100.00 |
| Semi - medium | 15496 | 4.2 | 41117 | 19.8 | 2.65 | 225.36 |
| Medium | 5130 | 1.4 | 28225 | 13.6 | 5.50 | 467.08 |
| Large | 489 | 0.1 | 7469 | 3.6 | 15.27 | 968.51 |
| Total | 365987 | 100.0 | 207912 | 100.0 | 0.57 | 2688.68 |
| Madhubani | | | | | | |
| Marginal | 379082 | 86.2 | 116737 | 45.9 | 0.31 | 53.19 |
| Small | 32145 | 7.3 | 39752 | 15.6 | 1.24 | 100.00 |
| Semi - medium | 21408 | 4.9 | 56944 | 22.4 | 2.66 | 213.59 |
| Medium | 6537 | 1.5 | 34752 | 13.7 | 5.32 | 459.42 |
| Large | 389 | 0.1 | 6310 | 2.5 | 16.22 | 918.21 |
| Total | 439561 | 100.0 | 254495 | 100.0 | 0.58 | 2801.69 |
| Samastipur | | | | | | |
| Marginal | 275905 | 84.7 | 92540 | 42.8 | 0.34 | 50.59 |
| Small | 26056 | 8.0 | 34428 | 15.9 | 1.32 | 100.00 |
| Semi - medium | 16794 | 5.2 | 45493 | 21.1 | 2.71 | 199.30 |
| Medium | 6672 | 2.0 | 36872 | 17.1 | 5.53 | 408.59 |
| Large | 396 | 0.1 | 6680 | 3.1 | 16.87 | 833.57 |
| Total | 325823 | 100.0 | 216013 | 100.0 | 0.66 | 2544.39 |
| Bagusarai | | | | | | |
| Marginal | 187645 | 84.9 | 67770 | 43.5 | 0.36 | 51.21 |
| Small | 16334 | 7.4 | 22233 | 14.3 | 1.36 | 100.00 |
| Semi - medium | 11798 | 5.3 | 30133 | 19.3 | 2.55 | 192.99 |
| Medium | 4704 | 2.1 | 25995 | 16.7 | 5.53 | 362.12 |
| Large | 487 | 0.2 | 9719 | 6.2 | 19.96 | 783.51 |
| Total | 220968 | 100.0 | 155850 | 100.0 | 0.71 | 2829.54 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------|--------|-------|--------|-------|-------|---------|
| Saharasa | | | | | | |
| Marginal | 327135 | 78.5 | 89671 | 26.5 | 0.27 | 33.82 |
| Small | 37675 | 9.0 | 50908 | 15.1 | 1.35 | 166.71 |
| Semi - medium | 35190 | 8.4 | 87158 | 25.8 | 2.48 | 100.00 |
| Medium | 15540 | 3.7 | 87409 | 25.9 | 5.62 | 305.57 |
| Large | 1325 | 0.3 | 22742 | 6.7 | 17.16 | 693.95 |
| Total | 416865 | 100.0 | 337888 | 100.0 | 0.81 | 2117.56 |
| Purnia | | | | | | |
| Marginal | 435493 | 70.6 | 164379 | 24.3 | 0.38 | 34.36 |
| Small | 82991 | 13.5 | 110714 | 16.3 | 1.33 | 121.45 |
| Semi - medium | 62425 | 10.1 | 169646 | 25.0 | 2.72 | 100.00 |
| Medium | 32864 | 5.3 | 183633 | 27.1 | 5.59 | 247.40 |
| Large | 3239 | 0.5 | 49383 | 7.3 | 15.25 | 508.69 |
| Total | 617012 | 100.0 | 677755 | 100.0 | 1.10 | 1387.99 |
| Katihar | | | | | | |
| Marginal | 141991 | 71.7 | 61666 | 25.4 | 0.43 | 35.37 |
| Small | 23917 | 12.1 | 33151 | 13.6 | 1.39 | 112.89 |
| Semi - medium | 19890 | 10.0 | 57708 | 23.7 | 2.90 | 236.30 |
| Medium | 10675 | 5.4 | 61504 | 25.3 | 5.76 | 469.24 |
| Large | 1438 | 0.7 | 28971 | 11.9 | 20.15 | 1640.85 |
| Total | 197911 | 100.0 | 243000 | 100.0 | 1.23 | 100.00 |
| Muzaffarpur | | | | | | |
| Marginal | 359116 | 79.7 | 136041 | 36.4 | 0.38 | 45.68 |
| Small | 47151 | 10.5 | 64188 | 17.2 | 1.36 | 164.17 |
| Semi - medium | 32047 | 7.1 | 86970 | 23.3 | 2.71 | 100.00 |
| Medium | 10701 | 2.4 | 59912 | 16.0 | 5.60 | 327.27 |
| Large | 1380 | 0.3 | 26369 | 7.1 | 19.11 | 675.17 |
| Total | 450395 | 100.0 | 373480 | 100.0 | 0.83 | 2304.31 |
| Bhagalpur | | | | | | |
| Marginal | 320918 | 78.3 | 118537 | 31.5 | 0.37 | 40.28 |
| Small | 41839 | 10.2 | 58479 | 15.6 | 1.40 | 152.43 |
| Semi - medium | 31521 | 7.7 | 83718 | 22.3 | 2.66 | 100.00 |
| Medium | 13865 | 3.4 | 82410 | 21.9 | 5.94 | 289.64 |
| Large | 1768 | 0.4 | 32736 | 8.7 | 18.52 | 648.19 |
| Total | 409911 | 100.0 | 375880 | 100.0 | 0.92 | 2019.22 |
| Santhal Pargana | | | | | | |
| Marginal | 263407 | 54.8 | 122421 | 13.8 | 0.46 | 25.21 |
| Small | 78448 | 16.3 | 112836 | 12.7 | 1.44 | 78.03 |
| Semi - medium | 80307 | 16.7 | 228090 | 25.7 | 2.84 | 100.00 |
| Medium | 50918 | 10.6 | 301982 | 34.1 | 5.93 | 154.08 |
| Large | 7508 | 1.6 | 120557 | 13.6 | 16.06 | 321.74 |
| Total | 480588 | 100.0 | 885886 | 100.0 | 1.84 | 871.09 |
| Hazaribagh | | | | | | |
| Marginal | 178498 | 65.9 | 73576 | 19.6 | 0.41 | 29.66 |
| Small | 38435 | 14.2 | 55621 | 14.8 | 1.45 | 104.13 |
| Semi - medium | 32767 | 12.1 | 92271 | 24.6 | 2.82 | 100.00 |
| Medium | 18469 | 6.8 | 108218 | 28.8 | 5.86 | 202.63 |
| Large | 2816 | 1.0 | 45904 | 12.2 | 16.30 | 421.63 |
| Total | 270985 | 100.0 | 375590 | 100.0 | 1.39 | 1172.99 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------|--------|-------|--------|-------|-------|---------|
| Giridih | | | | | | |
| Marginal | 140506 | 61.8 | 71585 | 22.0 | 0.51 | 35.68 |
| Small | 37184 | 16.3 | 55954 | 17.2 | 1.50 | 105.38 |
| Semi - medium | 35324 | 15.5 | 100227 | 30.9 | 2.84 | 100.00 |
| Medium | 13095 | 5.8 | 72817 | 22.4 | 5.56 | 198.70 |
| Large | 1339 | 0.6 | 24205 | 7.5 | 18.08 | 389.41 |
| Total | 227448 | 100.0 | 324788 | 100.0 | 1.43 | 1265.92 |
| Dhanbad | | | | | | |
| Marginal | 76709 | 66.6 | 34931 | 22.8 | 0.46 | 34.31 |
| Small | 16351 | 14.2 | 23567 | 15.4 | 1.44 | 108.61 |
| Semi - medium | 14235 | 12.4 | 39248 | 25.7 | 2.76 | 100.00 |
| Medium | 6834 | 5.9 | 39229 | 25.7 | 5.74 | 207.76 |
| Large | 1088 | 0.9 | 15931 | 10.4 | 14.64 | 432.54 |
| Total | 115217 | 100.0 | 152906 | 100.0 | 1.33 | 1103.33 |
| Ranchi | | | | | | |
| Marginal | 188982 | 47.3 | 76674 | 30.2 | 0.41 | 98.50 |
| Small | 59501 | 14.9 | 86623 | 34.2 | 1.46 | 100.00 |
| Semi - medium | 67990 | 17.0 | 19125 | 7.5 | 0.28 | 545.19 |
| Medium | 64968 | 16.3 | 40406 | 15.9 | 0.62 | 105.34 |
| Large | 17790 | 4.5 | 30748 | 12.1 | 1.73 | 1991.54 |
| Total | 399231 | 100.0 | 253576 | 100.0 | 0.64 | 6472.71 |
| Palamu | | | | | | |
| Marginal | 187157 | 62.4 | 72094 | 14.4 | 0.39 | 83.12 |
| Small | 41964 | 14.0 | 58227 | 11.6 | 1.39 | 100.00 |
| Semi - medium | 39186 | 13.1 | 109027 | 21.8 | 2.78 | 166.68 |
| Medium | 25829 | 8.6 | 156645 | 31.3 | 6.06 | 23.08 |
| Large | 6008 | 2.0 | 105030 | 21.0 | 17.48 | 363.31 |
| Total | 300144 | 100.0 | 501023 | 100.0 | 1.67 | 1047.26 |
| Singhbhum | | | | | | |
| Marginal | 233523 | 60.4 | 83525 | 13.1 | 0.36 | 21.72 |
| Small | 56947 | 14.7 | 80175 | 12.6 | 1.41 | 85.49 |
| Semi - medium | 52808 | 13.7 | 147891 | 23.2 | 2.80 | 100.00 |
| Medium | 35855 | 9.3 | 210582 | 33.1 | 5.87 | 170.06 |
| Large | 7206 | 1.9 | 114041 | 17.9 | 15.83 | 356.65 |
| Total | 386339 | 100.0 | 636214 | 100.0 | 1.65 | 961.02 |

Source: Agricultural Census of Bihar, (1980-81).

Marginal: <1 hectare.

Small: 1-2 hectare.

Semi-Medium: 2-4 hectare.

Medium: 4-10 hectare.

Large: >10 hectare.

Table A. 3: Distribution of land holding under different categories (small < 2 hectare)

| Districts | 1971 | | | 1981 | | |
|------------------|--|--|---|--|--|---|
| | Percentage number of operational holding | Percentage area of operational holding | Average Size of Holding (hectare/household) | Percentage number of operational holding | Percentage area of operational holding | Average Size of Holding (hectare/household) |
| Aurangabad | 76.6 | 32.1 | 1.77 | 82.5 | 41.3 | 1.74 |
| Begusarai | 83.8 | 37.4 | 1.82 | 92.3 | 57.8 | 1.72 |
| Bhagalpur | 79.5 | 28.8 | 1.78 | 88.5 | 47.1 | 1.77 |
| Bhojpur | 78.5 | 30.9 | 1.79 | 84.5 | 40.4 | 1.67 |
| Darbanga | 90.1 | 50.8 | 1.67 | 94.2 | 63 | 1.6 |
| Dhanbad | 70.2 | 21 | 1.82 | 80.8 | 38.2 | 1.9 |
| E.Champaran | 83.6 | 37.3 | 1.79 | 90.4 | 49.8 | 1.53 |
| Gaya | 85.1 | 44.5 | 1.75 | 87.2 | 51.3 | 1.71 |
| Giridih | 72.3 | 24.2 | 1.83 | 78.1 | 39.2 | 2.01 |
| Gopalganj | 82.1 | 40.9 | 1.79 | 95.1 | 58.7 | 1.56 |
| Hazari Bagh | 70.6 | 22.8 | 1.85 | 80.1 | 34.4 | 1.86 |
| Kathiar | 78.8 | 30.9 | 1.8 | 83.8 | 39 | 1.82 |
| Madhubani | 88 | 45.8 | 1.74 | 93.5 | 61.5 | 1.55 |
| Munger | 82.4 | 29 | 1.23 | 90.2 | 53.6 | 1.74 |
| Muzaffarpur | 86 | 39.5 | 1.7 | 96 | 64.6 | 1.48 |
| Nalanda | 85.3 | 44.6 | 1.74 | 91.8 | 63.9 | 1.66 |
| Navada | 82 | 38.9 | 1.77 | 90 | 57.6 | 1.72 |
| Palamu | 67.7 | 49.7 | 5.25 | 76.4 | 26 | 1.78 |
| Patna | 83.3 | 40.8 | 1.77 | 90.7 | 60.6 | 1.72 |
| Purnia | 73.3 | 16.5 | 0.94 | 84.1 | 40.6 | 1.71 |
| Ranchi | 57.3 | 12.8 | 1.88 | 62.2 | 64.4 | 1.87 |
| Rohtas | 72.3 | 23.9 | 1.84 | 77.9 | 31.8 | 1.8 |
| Saharsa | 78.4 | 31 | 1.79 | 87.5 | 41.6 | 1.62 |
| Samastipur | 88.6 | 44.6 | 1.77 | 92.7 | 58.7 | 1.66 |
| Santhal Paragana | 62.1 | 18 | 1.89 | 71.1 | 26.5 | 1.9 |
| Saran | 86.2 | 47.1 | 1.77 | 93.8 | 69.5 | 0.16 |
| Singhbum | 75.4 | 26.4 | 1.77 | 75.1 | 25.7 | 1.77 |
| Sitamarhi | 86.1 | 38 | 1.97 | 94 | 57.2 | 1.57 |
| Siwan | 83.1 | 41.3 | 1.79 | 89.1 | 53.6 | 1.65 |
| Vaisali | 88.3 | 46.6 | 1.73 | 96.3 | 69.1 | 1.55 |
| W.Champaran | 82.1 | 33.7 | 1.84 | 68.5 | 46.7 | 3.47 |

Source: Agricultural Census of Bihar (1970-71 and 1980-81).

Table A.4: Distribution of land holding under different categories (medium 2-10 hectare)

| Districts | 1970-71 | | | 1980-81 | | |
|------------------|--|--|--|--|--|--|
| | Percentage number of operational holding | Percentage area of operational holding | Average Size of Holding (hectare/ household) | Percentage number of operational holding | Percentage area of operational holding | Average Size of Holding (hectare/ household) |
| Aurangabad | 22.4 | 57.5 | 8.15 | 17.3 | 52.6 | 8.13 |
| Begusarai | 15 | 45 | 8.88 | 7.4 | 36 | 8.08 |
| Bhagalpur | 18.3 | 44.9 | 8.75 | 11.1 | 44.2 | 8.6 |
| Bhojpur | 20 | 53.9 | 8.64 | 15 | 52.2 | 8.37 |
| Darbanga | 9.5 | 40.4 | 7.92 | 5.6 | 33.4 | 8.15 |
| Dhanbad | 26.6 | 54.2 | 8.87 | 18.3 | 51.4 | 8.5 |
| E.Champaran | 15.2 | 45.4 | 8.57 | 9.3 | 43.1 | 8.07 |
| Gaya | 14.5 | 49.6 | 8.19 | 12.6 | 45.5 | 7.98 |
| Giridih | 24.9 | 51.7 | 8.58 | 21.3 | 53.3 | 8.4 |
| Gopalganj | 17.3 | 50.2 | 8.2 | 4.9 | 34.3 | 8.11 |
| Hazari Bagh | 26.6 | 52.8 | 8.66 | 18.9 | 53.4 | 8.68 |
| Kathiar | 19 | 44.3 | 8.37 | 15.4 | 49 | 8.66 |
| Madhubani | 11.5 | 42.1 | 8.24 | 6.4 | 36.1 | 7.98 |
| Munger | 16 | 47.4 | 8.66 | 9.5 | 39.3 | 8.31 |
| Muzaffarpur | 13.1 | 48.7 | 8.46 | 3.8 | 32.9 | 8.02 |
| Nalanda | 14.4 | 50.2 | 8.28 | 8.2 | 35.5 | 7.63 |
| Navada | 17.4 | 52.3 | 8.32 | 9.9 | 41 | 7.85 |
| Palamu | 27.1 | 29.4 | 9.55 | 21.7 | 53.1 | 8.84 |
| Patna | 16 | 50.9 | 8.41 | 9.3 | 38.5 | 7.84 |
| Purnia | 23.1 | 47.7 | 8.67 | 15.4 | 52.1 | 8.31 |
| Ranchi | 36.1 | 51.2 | 9.02 | 33.3 | 23.4 | 0.9 |
| Rohtas | 25.1 | 54 | 8.82 | 21 | 56 | 8.27 |
| Saharsa | 19.9 | 49 | 8.28 | 12.1 | 51.7 | 8.1 |
| Samastipur | 10.6 | 40.6 | 8.47 | 7.2 | 38.2 | 8.24 |
| Santhal Paragana | 34.5 | 59.6 | 8.84 | 27.3 | 59.8 | 8.77 |
| Saran | 13.5 | 46.8 | 8.31 | 6.1 | 29.7 | 0.78 |
| Singhbum | 22.8 | 56.8 | 8.63 | 23 | 56.3 | 8.67 |
| Sitamarhi | 12.9 | 47.6 | 8.62 | 5.9 | 38.1 | 8.39 |
| Siwan | 16.2 | 49.6 | 8.42 | 10.8 | 42.7 | 7.99 |
| Vaisali | 11.2 | 44.4 | 8.48 | 3.6 | 28.4 | 8.38 |
| W.Champaran | 16.1 | 42.8 | 8.71 | 30.1 | 42.1 | 8.49 |

Source: Agricultural Census of Bihar (1970-71 and 1980-81).

Table A.5: Distribution of land holding under different categories (large > 10 hectare)

| Districts | 1970-71 | | | 1980-81 | | |
|------------------|--|--|---|--|--|---|
| | Percentage number of operational holding | Percentage area of operational holding | Average Size of Holding (hectare/household) | Percentage number of operational holding | Percentage area of operational holding | Average Size of Holding (hectare/household) |
| Aurangabad | 1 | 10.6 | 15.57 | 0.3 | 6.1 | 27.51 |
| Begusarai | 1.1 | 17.5 | 20.5 | 0.2 | 6.2 | 19.96 |
| Bhagalpur | 2.1 | 26.3 | 20.23 | 0.4 | 8.7 | 18.52 |
| Bhojpur | 1.4 | 15.1 | 15.4 | 0.5 | 7.4 | 15.2 |
| Darbanga | 0.5 | 8.9 | 16.02 | 0.1 | 3.6 | 15.27 |
| Dhanbad | 3.2 | 24.8 | 16.16 | 0.9 | 10.4 | 14.64 |
| E.Champaran | 1.2 | 17.3 | 18.08 | 0.3 | 7 | 19.69 |
| Gaya | 0.4 | 5.9 | 16.4 | 0.2 | 3.2 | 16.1 |
| Giridih | 2.7 | 24.1 | 17.01 | 0.6 | 7.5 | 18.08 |
| Gopalganj | 0.7 | 8.9 | 16.23 | 0.1 | 7.1 | 24.61 |
| Hazari Bagh | 2.8 | 24.4 | 17.53 | 1 | 12.2 | 16.3 |
| Kathiar | 2.2 | 24.7 | 18.46 | 0.7 | 11.9 | 20.15 |
| Madhubani | 0.6 | 12.1 | 18.76 | 0.1 | 2.5 | 16.22 |
| Munger | 1.5 | 23.6 | 20.12 | 0.3 | 7.1 | 19.11 |
| Muzaffarpur | 0.8 | 11.8 | 14.96 | 0.1 | 2.6 | 16.53 |
| Nalanda | 0.3 | 5.2 | 15.23 | 0 | 0.6 | 14.35 |
| Navada | 0.5 | 8.9 | 19.4 | 0.1 | 1.4 | 15.46 |
| Palamu | 5.1 | 20.9 | 18.03 | 2 | 21 | 17.48 |
| Patna | 0.6 | 8.3 | 15.12 | 0 | 0.9 | 14.34 |
| Purnia | 3.6 | 35.7 | 19.5 | 0.5 | 7.3 | 15.25 |
| Ranchi | 6.6 | 36 | 17.07 | 4.5 | 12.1 | 1.73 |
| Rohtas | 2.6 | 21.9 | 16.24 | 1.1 | 12.3 | 16.26 |
| Saharsa | 1.7 | 20 | 17.61 | 0.3 | 6.7 | 17.16 |
| Samastipur | 0.8 | 14.8 | 18.44 | 0.1 | 3.1 | 16.87 |
| Santhal Paragana | 3.3 | 22.4 | 16.38 | 1.6 | 13.6 | 16.06 |
| Saran | 0.4 | 6.1 | 15.78 | 0 | 0.8 | 1.5 |
| Singhbum | 1.8 | 16.7 | 14.94 | 1.9 | 17.9 | 15.83 |
| Sitamarhi | 0.9 | 14.4 | 16.17 | 0.2 | 4.7 | 16.79 |
| Siwan | 0.7 | 9.1 | 16.08 | 0.2 | 3.7 | 15.32 |
| Vaisali | 0.5 | 9 | 16.66 | 0.1 | 2.5 | 15.11 |
| W.Champaran | 1.7 | 23.4 | 19.83 | 1.3 | 11.2 | 21.88 |

Source: Agricultural Census of Bihar (1970-71 and 1980-81).

Table A.6: Concentration Ratio of holdings in Bihar (1970-71 and 1980-81)

| States & Districts | Gini's co-efficient 1970- 71 | States & Districts | Gini's co-efficient 1980 -81 |
|--------------------|---------------------------------|--------------------|---------------------------------|
| Darbhangha | 0.492 | W Champaran | 0.340 |
| Saran | 0.506 | Saran | 0.340 |
| Gopalganj | 0.521 | Vaishali | 0.394 |
| Madhubani | 0.522 | Darbhangha | 0.410 |
| Gaya | 0.535 | Patna | 0.422 |
| Vaishali | 0.537 | Madhubani | 0.426 |
| Nalanda | 0.538 | Nalanda | 0.427 |
| Patna | 0.539 | Bagusarai | 0.443 |
| Siwan | 0.540 | Muzuffarpur | 0.446 |
| Samastipur | 0.547 | Samastipur | 0.446 |
| Nawada | 0.556 | Nawada | 0.459 |
| Auragabad | 0.556 | Siwan | 0.466 |
| Santhal pargan | 0.569 | Gaya | 0.475 |
| Bagusarai | 0.569 | Munger | 0.476 |
| Muzuffarpur | 0.579 | Sitamarhi | 0.476 |
| E Champaran | 0.579 | Giridih | 0.489 |
| Saharasa | 0.581 | E Champaran | 0.505 |
| Palamu | 0.584 | Gopalganj | 0.507 |
| Bhojpur | 0.589 | Auragabad | 0.520 |
| Katihar | 0.593 | Bhagalpur | 0.521 |
| Ranchi | 0.595 | Dhanbad | 0.526 |
| W Champaran | 0.596 | Ranchi | 0.528 |
| Giridih | 0.596 | Purnia | 0.540 |
| Hazaribagh | 0.600 | Katihar | 0.543 |
| Rohtas | 0.601 | Bhojpur | 0.545 |
| Sitamarhi | 0.602 | Santhal pargan | 0.551 |
| Singhbhum | 0.605 | Bihar | 0.557 |
| Bihar | 0.605 | Hazaribagh | 0.562 |
| Dhanbad | 0.613 | Rohtas | 0.565 |
| Munger | 0.618 | Saharasa | 0.572 |
| Bhagalpur | 0.626 | Singhbhum | 0.606 |
| Purnia | 0.661 | Palamu | 0.612 |

Source: Agricultural Census of Bihar (1970-71 and 1980-81).