

PEASANT AGRICULTURE AND TENANCY IN ORISSA (INDIA):

A STUDY OF THREE VILLAGES

AT DIFFERENT LEVELS OF DEVELOPMENT,
WITH SPECIAL REFERENCE TO SHARE TENANCY

A THESIS

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by

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ABSTRACT

A scrutiny of the theoretical literature on share tenancy reveals that there are two broad approaches to the study of the causes of tenancy, its efficiency implications and its dynamics: i.e. the neoclassical and the Marxist. Neoclassicals consider share tenancy as essentially a contractual arrangement, a rational response to imperfections in rural markets with the aim of improving allocative efficiency in a static setup. The imperfections may arise due to the inherent characteristics of rural markets such as risk, uncertainty, indivisibility, information asymmetry and moral hazard problems. By contrast, Marxists view share tenancy as essentially a production or class relation and a method of surplus appropriation, and a cause of agrarian stagnation in a dynamic context. The applicability of these two approaches to share tenancy is examined with primary data collected from three villages in Orissa in Eastern India. It is concluded that the Marxist approach is more powerful in studying share tenancy, in its addressing the problem in the context of a differentiated class society. Our study lends support to certain aspects of the Marxist approach, while some others are rejected.

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DEDICATED TO MY PARENTS

Late Kshetramohan Swain

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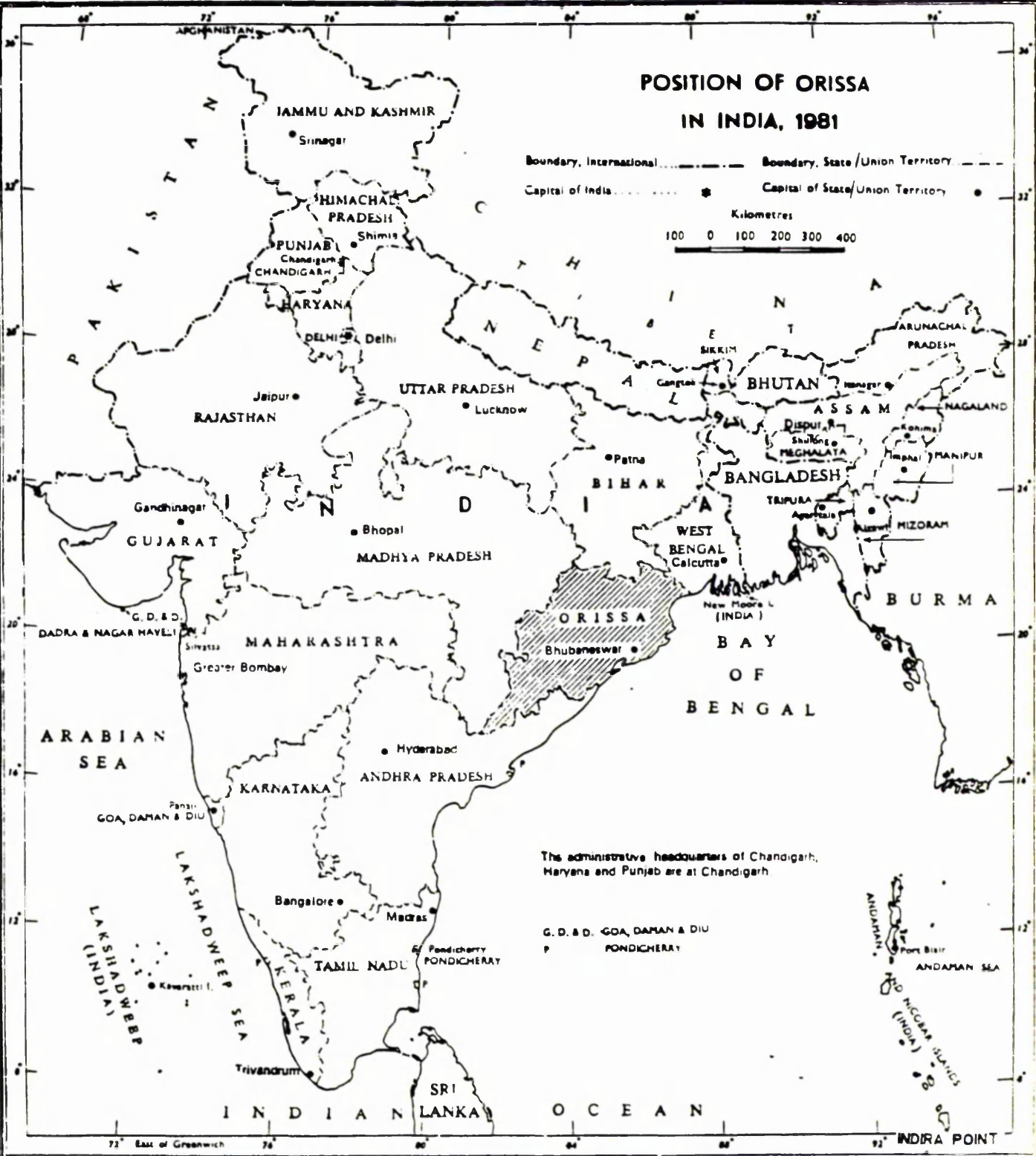
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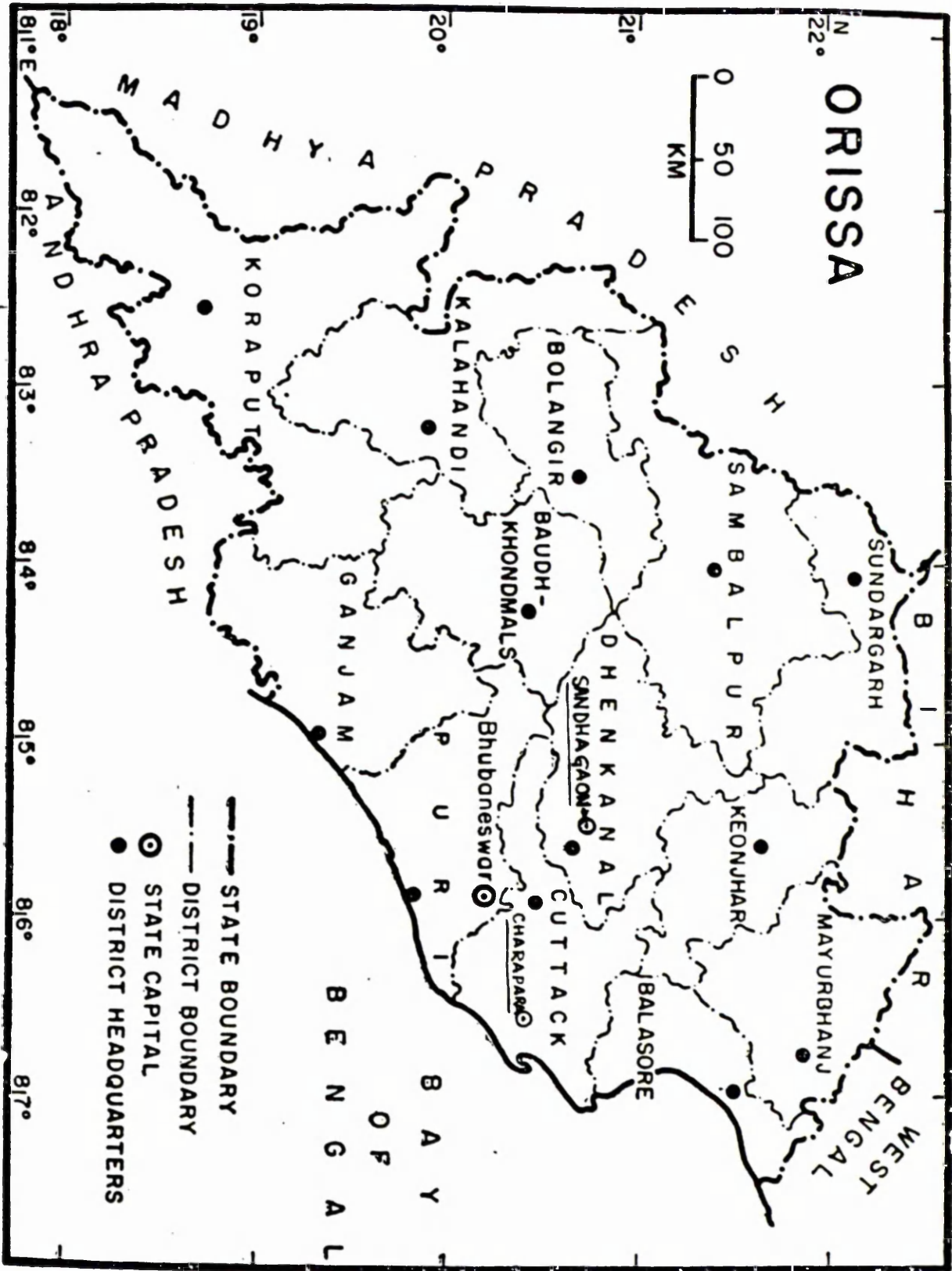
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POSITION OF ORISSA IN INDIA, 1981



Map 4.2



CHAPTER I
INTRODUCTION

1.1 INTRODUCTION

In less developed agrarian economies agriculture plays a key role in accelerating the tempo of development by providing employment, generating income and creating demand, supplying raw materials and wage goods to the industrial sector and promoting exports. In India agriculture is the mainstay of livelihood¹ for about seventy percent of the working force. Due to the slow pace of industrialisation, agriculture continues to be over crowded without any significant transfer of unemployed surplus labour from the rural sector to the industrial sector. Agriculture is confronted with the peculiar feature of its primary factor of production, i.e. land, being fixed in amount. On the other hand, the population growth rate is high² worsening the adverse land-man ratio further. Moreover, land is concentrated in few hands of large farmers and medium farmers.³ As a result, a significant proportion of village households belong to the category of

¹ According to 1971 Census the proportion of work force in agriculture was 72 per cent (Laxminarayan and Tyagi, 1982: 7).

² According to Census of India 1991, Series 1, Paper 1, the annual exponential growth rate of population in 1981-91 is 2.11 per cent and shows a marginal decline from that of 2.22 per cent in 1971-81.

³ According to the Agricultural Census, 1971, the marginal holdings (from 0.002 to 1.00 ha) constituting 51 per cent of total holdings operate only 9 per cent of land, whereas the top group (10.13 ha and above) consisting of 4 per cent of holdings operate 31 per cent of land (Laxminarayan and Tyagi, 1982: 46).

poor peasants and landless labourers. Under these circumstances tenancy or leasing in of land might be seen to play an important role by providing livelihood to the land poor section of the peasantry.

The history of peasant movements all over India confirm the fact that tenants are usually exploited by the landlord class because of their precarious existence at the margin of subsistence. Also, tenancy is considered to be allocatively inefficient leading to sub-optimal resource use and a feature of backward agriculture⁴ which acts as a barrier to the development of capitalist productive forces. Thus, quite apart from problems of 'equity' and 'exploitation' involved in share tenancy, there is also a problem of inefficient allocation (Sen, 1966: 446). That is partly why in the pre and post independence periods and more specifically in the early fifties a spate of tenancy reforms⁵ were undertaken and continue to be amended and extended in scope. But the implementation of these measures has been poor. Tenancy as prohibited by law is underestimated in all official records. There is a significant proportion of concealed tenancy⁶ and tenancy undoubtedly

⁴ It is not tenancy per se, that is inefficient. As tenancy was clearly compatible with agrarian transition to capitalism by imbibing particular forms of capitalist tenancy, for example in 18th and 19th century England and in Japan in late 19th century.

⁵ In India the enunciation of land reform programme and its implementation reflect clear class bias (Griffin, 1974). There was a radical land reform ideology without a radical land reform programme (Joshi, 1974).

⁶ As per Sawant's (1991, p.20, Table 3) estimate, at the all India level the percentage of non-reported tenancy to total tenancy among rural households was 37.17 % in 1981.

continues to play a major role in the rural arena. Therefore, a study of tenancy will help in exploring the causes, consequences and persistence of tenancy.

According to the mode of rent payment, tenancy can mainly be divided into three types viz. share tenancy, fixed kind and fixed cash tenancy.⁷ In the case of share tenancy the cultivator pays the landlord a fixed proportion of gross output whereas in fixed tenancy the direct producer pays a fixed quantity of crop or cash as the case may be. Among the three types of tenancy, share tenancy is more prevalent⁸ and it manifests itself in complex forms, and that is why it is of more academic interest. More than seventy years ago Alfred Marshall wrote: "There is much to be gained from a study of the many various plans on which the share contract is based (1961, p.643, Footnote 2)." This same statement can be reiterated today.

Share tenancy is a type of land tenancy or land lease, and more specifically it can be defined as a contractual arrangement between a landowner and a tenant for a specified period of time, in which the tenant leases in

⁷ There is a fourth type of rent payment in terms of labour which was prevalent in the manorial economy of Western Europe until the end of 14th century in the form of serf's unpaid labour on manor's land and also as Corvee labour in Russia. In the present era, in backward agriculture, it is also observed that in tenancy contracts, the landlords usually stipulate some labour services to be rendered by the tenant for the landlord in addition to the customary rent payment. And in most cases the tenants are unpaid or underpaid for these labour services to the landlord.

⁸ According to NSS Report No.331, 37th Round, in 1982 in India the percentage of leased-in operated area for share product was 42%, whereas for fixed produce and for fixed money it was 6% and 11% respectively (Parthasarathy, 1991: A35).

land from the landowner with an agreement to pay rent for the use of land in terms of a contracted proportion of the physical output produced during the period. Historically, it is an age-old institution and a system of production organisation; and it has been extremely widespread geographically (Byres, 1983:32). It has shown dogged persistence in its reluctance to disappear because of its extreme adaptability and flexibility. It is observed in quite diversified circumstances like thickly populated and land scarce regions like South Asia and South East Asia and also in relatively labour scarce and land abundant Sub-Saharan Africa and Latin American countries. It is prevalent both in backward as well as advanced agriculture (Robertson, 1987: 2). Also, share tenancy manifests itself in varied forms to cater to the necessity of circumstances depending on differing socio-economic, cultural, demographic and ecological conditions. In its most complicated form, it is an interaction with multiple levels of contractual obligations between households involving land, labour, credit transactions, consumption loans, input sharing and output marketing and so on.

1.2 IMPORTANCE OF THE STUDY

The geographically pervasive and historically tenacious institution of sharecropping has drawn the attention of social scientists belonging to varied disciplines like history, social anthropology, sociology and economics and has been a source of heated controversy.

As a result, there is a sizeable volume of literature on share tenancy which can broadly be divided into three schools of thought viz. classical, neoclassical and Marxist. In the classical and Marxist approach the dynamics of the share contract have been emphasized whereas in the neoclassical approach the efficiency implications of share tenancy have been analysed in a static allocative framework by constructing mainly theoretical models based on differing assumptions and under different market structures.⁹

It is useful to begin with Adam Smith who is considered to be the chief architect of the classical paradigm on share tenancy.¹⁰ According to Smith share tenancy provides some incentive to work as the tenant knows that a proportion of the proceeds due to his increased effort will accrue to him. And therefore, share tenancy is deemed progressive in comparison to the system of serfdom which it replaced in the post-feudal estates of Western Europe. Smith in his *Wealth of Nations* argued that European *metayers* (share tenants) succeeded landed slaves (serfs) as the primary tenants in Europe: "Such tenants, being free men, are capable of acquiring property, and having a certain proportion of the produce of land, they have a plain interest that the whole produce should be as great as

⁹ See Quibria and Rashid (1984), Koo (1973) and Otsuka and Hayami (1988) for different models of tenancy constructed under different market structures.

¹⁰ Adam Smith's treatment of sharecropping was brief but quite influential. In the *Wealth of Nations* (1969: 489-91), Adam Smith devoted only three paragraphs to discussing *Metayers*.

possible..... A slave, on the contrary, who can acquire nothing but his maintenance, consults his own ease (1969: 490)." But the ultimate disadvantage of share tenancy lay in its lack of stimulus towards investment on the part of cultivators, since a proportion of the returns accrue to the landowner who invests nothing. Thus Smith viewed *metayage* as inefficient but pointed out that the source of inefficiency differs from that of slavery or labour rents. The slave shirks his labour supply, while the share tenant has an incentive to work hard but not to invest his own stock.

Smith points out that: "To this species of tenancy succeeded,..... farmers properly so called, who cultivated the land with their own stock, paying a rent certain to the landlord (1969: 491)." And under long term leases of fixed tenancy, the tenants are motivated to invest in further improvement of the farm as there is the possibility of recovering it. Thus to the classical economists share tenancy was of considerable interest due to its location in the evolution of land tenure systems. The classical position is that the appearance and adoption of various land tenure systems is an historical-evolutionary process that has been conditioned by the development of monetized market capitalism and affected by efficiency improving changes in the organisation of agricultural production (Jaynes, 1984: 44). This viewpoint has been expounded more or less explicitly by a number of economists, including

A.Turgot, Richard Jones, and J.S.Mill.¹¹

The first formal statement concerning the allocative implication of sharecropping is presented by Marshall¹² which is known as the traditional neoclassical view. According to Marshall the tenant will not invest resources beyond the level where the marginal cost of output is equal to half of the value of the marginal product. Similarly the landlord will not invest unless the marginal product of such investment is equal to a minimum of twice the marginal cost (Johnson, 1950:259). Thus if the landowner and the tenant view their interests independently of each other, production will be sub-optimal as the marginal conditions of efficiency are not satisfied. Marshall like Smith, Jones, and Mill attempted to rank various land tenure arrangements according to economic efficiency. But whereas Smith and Jones viewed a share lease, though wasteful, as transitional, Mill and Marshall laid the blame on 'custom'. According to Mill and Marshall the metayage system in Europe was regulated by custom and not by competition and was a repository of inefficiency.

In contrast to this line of thinking Marxists

¹¹ Of course Mill was more sympathetic to sharecropping than Adam Smith. Mill claimed "that the unmeasured vituperation lavished upon the system by English writers, is grounded on an extremely narrow view of the subject (Quoted from Cheung, 1969:39)." Mill, however, argued that insecurity of tenure was the major defect of Metayage in France. Under security of tenure, as was prevalent in Italy, share tenancy was perfectly compatible with agricultural improvement (Johnson, 1950: 262).

¹² Marshall's treatment of sharecropping or *Metayage* is relatively brief covering only three pages in his *Principles of Economics* (1961:643-45). Yet it was deeply influential.

consider share tenancy as an intermediate method of surplus appropriation which is conditioned by the prevailing power relations and the nature of production process. Marx devotes only one paragraph on Metayage in his *Capital* (Vol.3, 1974: 803) and views share tenancy as a transitory form of rent from pre-capitalist ground rent to capitalist rent. Thus, share tenancy is considered to be transitory in nature and it will tend to disappear with capitalist accumulation. Marxists argue that it is not the business of the landowner to introduce efficiency improving changes but his primary objective is to extract surplus to the point just consistent with the reproduction of the peasant households. This concept of reproduction in the Marxist sense provides an essential causal link between past and present and is the social constraint on the objective function of surplus appropriation by the dominant class. Thus both classicals and Marxists consider share tenancy as the hall-mark of pre-capitalist and backward agriculture and it was presumed that with the development of commerce and penetration of market forces and with the spread of cash economy share tenancy would disappear being inconsistent with the changed scenario. But certain empirical evidence proved contrary.¹³ Byres in his

¹³ Recently the reemergence of land-leasing (informal) in Kuttand district of Kerala has drawn the attention of economists (Eswaran, 1990; Kumar, 1991). In Kerala, after the implementation of land reforms in 1970s, land leasing was virtually extinct. But due to increasing cost of cultivation, declining profitability of paddy, land management problem, unemployment and land hunger of the landless agricultural labourers tenancy is reappearing in a concealed form.

'Historical Perspectives on Sharecropping' has succinctly summed this up:

Sharecropping has existed since remarkably early times; has been extremely widespread geographically; has shown an often astonishing historical continuity and tenacity; has, in some pre-capitalist/pre-socialist societies, such as China and Turkey, displayed a capacity to disappear and re-appear. It continues to exist pervasively in the so-called Third World.

(Byres, 1983: 32)

Thus the persistence of share tenancy continues to be a puzzle to economists and in their attempts to solve the puzzle there has been an explosion of literature on share tenancy in the last three decades. A scrutiny of the recent literature reveals that most of the theoretical and empirical work have been set in a static allocative framework with the aim (i) to explore the causes of share tenancy i.e. why does share tenancy exist?, (ii) to examine the efficiency implications of share tenancy as an institution in comparison to fixed tenancy and owner cultivation, (iii) to examine share tenancy as a feature of pre-capitalist or capitalist agriculture; in other words to associate sharecropping with a particular mode of production because of its tremendous versatility. The views of economists on these issues differ remarkably due in part to differing theoretical orientations of economists but also to the divergent conditions under which share tenancy is observed.

The dynamic implications of tenancy have been very sparingly dealt with or have been relegated to the background. It is surprising how the problem of share

tenancy that attracted the attention of classical economists from Adam Smith to Mill as an institution in evolution i.e. an improvement upon the serf economy, was lost sight of and only the Marshallian geometrical display of allocational inefficiency (depicted in a foot-note, 1961, p.644) of sharecropping was highlighted and provided the foundation for further research work. Curiously, Marshall himself was abundantly aware of sharecropping's diverging historical past in different contexts.

Few studies have been undertaken to explore the dynamics of tenancy contracts. Studies by Pearce (1983) and Gupta (1980) are attempts to apply Marxist ideas to contemporary reality in limited directions. These studies are at a theoretical level trying to universalise Marx's notion of labour process and formal subsumption of labour. What is required is concrete case studies intensively undertaken to unfold the emerging production relations and concomitant system of production organisation due to changes in productive forces. Srivastava's (1989a) fairly intensive case study of three villages in Uttar Pradesh is revealing in this regard. But his study of tenancy relations is more or less an intra village study without taking into account the macro variables and the historical past which affect the tenancy relation to a significant extent. Moreover, while he points out the transition in tenancy contracts, he does not explain adequately why they change, and the reasons for leasing in and leasing out have not been explored. A holistic approach is necessary to

study the factors that impinge upon a peasant urging him to enter into a specific type of production relation. The factors that affect an individual's decision can be represented as a spiral like structure where the family comes at the core, then comes the village, the state, the nation and the rest of the world consecutively. All these levels as well as the past historical developments, affect the peasants' behaviour in their present state.

There have been few studies of the dynamics of the tenancy relationship in the Chayanovian demographic family cycle framework where tenancy is considered as a rung in the ladder which a young family has to climb starting from doing unpaid labour on home farm at the bottom of the ladder at the early stage to owner-operate at the top when the family gains farming experience.¹⁴ Robertson's (1987) study of the dynamics of productive relationship in Africa is a pioneering work embracing a broader framework which he terms the ontogenetic and phylogenetic development of contracts. Ontogenetic development takes place in response to the gradual growth and decline of the family. Phylogenetic change is necessarily slow, responding to major changes in structure of the economy, for example technical development, the expansion of markets, changes in

¹⁴ This idea is formulated by historians from their observations in American South. According to Spillman (1919: 170): "The first rung on the ladder is represented by the period during which the embryo farmer is learning the rudiments of his trade. In the majority of cases this period is spent as an unpaid labourer on the home farm. The hired hand stands on the second rung, the tenant on the third, while the farm owner has attained the fourth or the final rung of the ladder." Quoted from Hallagan (1978: 335, Footnote No.3)

land-labour ratios, or world recession (Robertson, 1987: 18). He sees no justification in regarding tenancy either as a casualty of evolution or as an obstacle to progress. Likewise Lehman (1985: 34) in his study of tenancy relationship in the Highlands of Ecuador (1985: 34) applying Robertson's methodology holds the view that in contrast to much contemporary thinking, tenancy instead of imprisoning the tenants in their poverty, seems to offer at least an escape route from it. Winters (1978), a strong supporter of the agricultural ladder hypothesis on the basis of his study of agricultural tenancy in nineteenth century Iowa also concludes that "Tenancy did not undermine agricultural development and slow economic growth; in fact, by placing land in the hands of those who would put it to productive use, it probably enhanced both (p.107)."

But the findings of such studies are based on specificity of the social settings of their study areas. The agricultural ladder hypothesis is based on the observation that a family (by a newly married couple) is set up by leasing in land from its parents; it then prospers and purchases land and starts self-cultivating its own land; and when it grows old fission of the family takes place and the old parents lease out land to their offspring and the process continues. In the case of India the family ideology is totally different from what is observed in Africa. In India the joint family structure is followed where the head of the household shoulders all responsibility and the resources of all the family members

are pooled together for the development of the family. So after marriage the son with his wife does not move out to have a house of his own and arrange his own source of livelihood by leasing in land. Rather, all his liabilities are integrated to the parental family. Therefore tenancy plays different roles in different social settings.

To understand tenancy, intensive studies must be undertaken in different socio-economic, demographic and ecological contexts. The neoclassical and Marxist approaches attempt to develop a universally applicable theory of share tenancy, whereas the exponents of the agricultural ladder hypothesis put forward some anthropological explanations specific to certain economic environments.

Moreover, a close examination of the recent literature on share tenancy reveals that almost all of the studies have been framed in a narrow framework which can broadly be divided into three categories. The first category includes the studies by Bhaduri(1983a), Scott(1976) which consider share tenancy as an intra village phenomenon and explain it in terms of prevailing relations of production which are exploitative in Bhaduri's framework, and are based on 'village subsistence ethic' in Scott's analysis. The second category consists of historical studies (Bagchi,1982; Djurfeldt and Lindberg,1975) where sharecropping is analysed in an historical perspective as a consequence of imperialist domination i.e. as an offshoot of colonial exploitative policy which deindustrialized the colonial

economy and created a large unemployed reserve army which led to the creation of an absentee landlord class and a varied layered tenant class. The third category of studies, which are more numerous, explain share tenancy at the individual household level in terms of rational behaviour either in a competitive, monopolistic, game theoretic or principal agent framework¹⁵. They try to explore the causes of tenancy in a static functionalist framework. In order to probe the causes of tenancy, what they actually do is to study its functions or roles which may be considered as immediate causes whereas the crux of the problem remains untouched. Thus three categories of studies approach the problem from three levels i.e. the village in the first, historical developments in the second, the individual household in the third approach. These studies are partial in their analysis. What is required is an integrated and holistic approach to the question of share tenancy. So what is happening in a village can be explained in terms of internal conditions and external environment both past and present.

1.3 OBJECTIVES OF THE STUDY

The primary objective of this study is to situate share tenancy in the dynamics of institutional change. Is share tenancy a transitory phenomenon which will disappear with commercialisation of agriculture? Or is it versatile

¹⁵ For an excellent survey of models based on rational peasant behaviour under different market structures, see Quibria and Rashid (1984).

enough to persist by adapting itself to the changing socio-economic conditions? Obviously the dynamics of tenancy relationship are inextricably linked with the causes of its existence and its efficiency implications. Why does tenancy exist and tend to persist? Is it efficient in comparison to fixed tenancy and owner cultivation? If it is inefficient, why doesn't society get rid of it ?

These are some of the questions to which there are no definitive answers as yet from economists. Disagreement over these issues seems to be genuine and cannot simply be discarded by adhering to a particular line of thinking. The diversity of views stems in part from the complicated nature of share tenancy, which as has been suggested differs remarkably in different socio-economic settings.

This study is primarily undertaken to study the dynamics of tenancy relationship with the aim of commenting upon the appropriateness of the two approaches i.e. the neoclassical and the Marxist to, understand the rationale and flexibility of the tenancy relationship. More particularly the objectives of the study are

- (i) to explore the roles of share tenancy contracts
- (ii) to examine the efficiency implications of
share tenancy
- (iii) to study the dynamics of share tenancy
contracts
- (iv) to examine whether tenancy as observed
resembles semi-feudalistic or capitalist
relations of production

(v) to comment on whether the neoclassical or the Marxist approach to share tenancy explains better the causes of its existence, its efficiency implications and its dynamics.

1.4 METHODOLOGY

In order to study the efficiency and the dynamics of share tenancy contracts or more precisely how the terms and conditions of tenancy contracts change with advancement in agriculture, we conducted a census survey of three villages in the state of Orissa in Eastern India, an area which is known for its poverty and backwardness.

The three villages selected as our study area belong to three categories based on a simple notion of the extent of development. The most advanced village is the village Charapara situated in Cuttack district which has perennial canal irrigation and in which the use of H.Y.V. seeds, chemical fertiliser and pesticides is prevalent. The moderately advanced village is Harinababi which is adjacent to Charapara and canal irrigated, but in which the use of yield stimulating inputs is less than in Charapara. The least advanced village or the backward village is the non-irrigated village Sandhagaon, situated in the district of Dhenkanal. Moreover, historically the irrigated villages were located in *Mughalbandi*¹⁶ areas in Pre-British period

¹⁶ The three districts of Orissa (Cuttack, Puri and Balasore) which were under direct administration of Mughal emperors.

and were under *zamindari*¹⁷ settlement during the British rule. On the other hand, the non-irrigated village Sandhagaon was a *Garhjat*¹⁸ in Pre-British period and a *Tributary Mahal*¹⁹ or a feudatory state under British rule.

In this study our aim is to highlight the intervillage and intravillage interclass differences with respect to the modality of tenancy transactions. In this context the following will be examined carefully: production relations among the different strata of the peasantry, the changing class relations, the role of the state and different government policy measures, historical developments and the inter-relation between agriculture and industry. This may be termed an holistic political economy approach.

Our study involves a time dimension inasmuch as we explore the dynamics of tenancy contracts with the advancement in agriculture. We attempt to study it with cross-sectional data across regions. We study different villages at differing stages of agricultural development at a point of time rather than studying a particular village at distinct phases of development over time. To study the dynamics of intricate mechanism of tenancy contracts which often are interlocked with credit, labour and produce markets, one requires exhaustive detailed data encompassing

¹⁷ In the *zamindari* settlement, the *zamindars* or the landlords were the proprietors of land responsible to the Government for collection of land revenue from tenants.

¹⁸ *Garhjats* were the lands belonging to Western Orissa consisting of mountain fortresses.

¹⁹ *Tributary Mahals* were ruled by semi-independent *Rajas* (kings) and British civil laws were not applicable there.

all socio-cultural and economic aspects of the village economy for which no reliable secondary data are available. Moreover, to collect direct information from households over their past for which respondents are required to recall their past from memory is likely to be extremely difficult and will generate faulty data. But to a limited extent the recall method can intelligibly be used to draw overall inferences. While comparing the modality of tenancy arrangements as between advanced and backward agriculture we have also attempted to shed some light on the changes which have come about in individual villages.

Moreover, we deliberately avoided undertaking a large scale survey of tenancy relation by purposively selecting tenant households over a wider area. This is notoriously difficult to do. Rather we chose to focus attention on the dynamics of tenancy contracts in particular study villages as the nature of these contracts vary villagewise and the complexity of tenancy and its location specific features cannot be captured by large scale surveys. Bardhan and Rudra's (1980a) study of tenancy is a survey of 334 villages in four states in Eastern India and because of its large scale nature the findings are problematic. As tenancy contracts after all involve decisions at the micro level which take place in a specific socio-economic context within a village boundary, the studies by Bardhan (1976) designed to explore the economic factors that explain the variations in tenancy at the state level are also of dubious usefulness. Thus we may use an analogy: in order to

study the characteristics of fish, it is not necessary to catch the fish in the pond by spreading the net over different sections and bring them outside and classify, compare, analyse and interpret the results. This only touches the fringe of the problem, as what you will be able to identify are only the physical features in terms of size, shape and colour etc. But what an investigator is really interested is in the life process of the fish in its natural habitat. In order to do that one has to dive deep into the water and observe the play and the prey-predatory relationship under water. Therefore, participative observation in a natural setting is much more revealing in the study of complex tenancy relationship than the large scale surveys undertaken to draw some valid statistical generalisations.

As tenancy is very often interlinked with other markets like credit, labour and produce; to understand tenancy one must try to understand the intricate rural market mechanisms and the complicated multiplex exchange relationships that exist.²⁰ For this sort of intensive study one requires detailed information which can broadly be divided into four categories:

- (i) Village specific information: Ecological and infrastructural

²⁰ Some studies for example, Singh's (1989) study in Punjab, in Gujarat by Vyas (1970), in Orissa by Bharadwaj and Das (1975) have been undertaken to explore the rationale of share tenancy and its dynamics. But these studies attempt to analyse tenancy as an isolated phenomenon without paying attention to its interlinkage with other markets like credit, labour and output.

- (ii) Household information which includes landholding pattern, demographic characteristics of households in terms of caste, family size, level of education and employment status
- (iii) Characteristics of the farm economy i.e. cropping pattern, cropping intensity, crop yield, cost of cultivation, farm income, input use and labour use
- (iv) Economic status of households which comprises sources of household income, consumption and investment expenditure, extent of indebtedness, sources of finance, purpose of borrowing and purchase and sale of asset and sale of crops

Again, detailed information has to be collected from specific type of respondents like tenants, attached labourers, casual labourers and farm servants to extract information regarding their terms and conditions of contract. For this purpose a village questionnaire and specific questionnaires for specific types of respondents were framed and information was collected by direct personal interview.²¹ All the households in all the three villages were included in the study.

Tenancy is legally prohibited in the state of Orissa except under certain unusual circumstances. Therefore, the study of the existence and persistence of an institution

²¹ See Appendix 1.1 for a copy of the questionnaire which we used (an Oriya version) to collect information from village respondents.

which is forbidden by law is troublesome and beset with risk. As the types of information required for our analysis were sensitive ones, utmost care was taken in extracting information by cross examining and winning over their trust that the information would be kept confidential and the purpose of the survey was to understand their problems and to suggest some policy measures for their upliftment.

1.5 LIMITATIONS OF THE STUDY

Our study is restricted to three villages in Orissa. Therefore, the findings cannot be generalised for the state as a whole. As the number of tenant households was not large enough to allow us to apply parametric tests like t-test and anova, we have tried some of the non-parametric tests, which are of course less powerful but do not require the strict assumptions on sample distributions as the parametric tests demand.

The purpose of our study is not to supply conclusive evidence with respect to the questions that perplex economists. Rather our study is more poised to identify certain aspects of tenancy which have hitherto been left ignored.

1.6 PRESENTATION OF THE STUDY

To begin with, a brief survey of the theoretical literature on share tenancy is given in Chapter II. This includes the causes of tenancy in general and share tenancy in particular, the efficiency implications of share

tenancy, share tenancy as a theory of stagnation, and dynamics of share tenancy contracts. All these issues are discussed by encapsulating the different views under two approaches i.e. the neoclassical and the Marxist. Different views on compatibility of share tenancy with differing mode of production are also discussed.

Chapter III contains a treatment of the salient features of share tenancy in post-independent Orissa.

In chapter IV a profile of the study villages is given and the socio-economic and demographic characteristics of the households in relation to ownership, tenancy and 'degree of tenancy' are analyzed.

Chapter V contains a statement of the characteristics of farm economy of study villages in terms of cropping pattern, seed variety, crop yield, input use, farm income and so on. These characteristics are studied with respect to ownership, tenancy and 'degree of tenancy'.

Chapter VI includes the main findings of the survey with respect to basic features of share tenancy, for example, the incidence of sharecropping, who leases in and why, who leases out and why, and the terms and conditions of share tenancy.

In chapter VII certain hypotheses are carefully selected from the existing theory on the efficiency of share tenancy and those hypotheses are tested with the primary data collected from our three study villages. Also, changes in tenancy relations as observed in sample villages are discussed. An attempt is made to explain its

persistence and to examine whether it resembles semi-feudalistic or capitalist relations of production.

Chapter VIII deals with the findings of the survey with regard to tenancy being interlinked with other markets.

Chapter IX is the concluding chapter, incorporating a brief summary of the findings, a package of policy proposals and the possible directions in which the study might be extended.

CHAPTER - II
TENANCY AND THEORY

2.1 INTRODUCTION

There is a plethora of theoretical literature on share tenancy most of which attempts to explore the causes, delineate the consequences and examine the persistence of tenancy. Economists' views on these issues differ remarkably and the divergent views put forward by them can broadly be divided into two strands of thought i.e. neoclassical¹ and Marxist. The views of neoclassicals and Marxists differ significantly: on the very definition of share tenancy, on its causes, its efficiency implications, and on the more complicated issue of tenancy in transition. In this chapter we will discuss different definitions of share tenancy, different perceptions of its roles and different views on the efficiency implications of share tenancy. We will try to examine share tenancy in terms of a theory of stagnation. The dynamics of tenancy contracts with technological change and tenancy and mode of production will be explored.

2.2 DEFINITION OF SHARE TENANCY

The difference in theoretical orientation of economists in explaining share tenancy can very easily be inferred from the way share tenancy is defined by different

¹ We join together the classical and the neoclassical viewpoint as their analytical framework is common.

economists.

Adam Smith in his *Wealth of Nations* defines Metayers² (share tenants) who, he suggests, succeeded the slave cultivators of ancient times thus:

The proprietor furnished them with the seed, cattle, and instruments of husbandry, the whole stock, in short, necessary for cultivating the farm. The produce was divided equally between the proprietor and the farmer, after setting aside what was judged necessary for keeping up the stock, which was restored to the proprietor when the farmer either quitted, or was turned out of the farm.

(Smith, 1969: 490)

Marshall in his *Principles of Economics* distinguishes the English system of fixed rental and the system of *Metayage* which was prevalent in the great part of Latin Europe. Marshall tells us that in the case of *Metayage* or holding land on shares "the land is divided into holdings, which the tenant cultivates by the labour of himself and his family, and sometimes, though rarely, that of a few hired labourers, and for which the landlord supplies buildings, cattle, and, sometimes even, farm implements (Marshall, 1961: 643)." Thus share tenancy is according to Marshall an adjustment mechanism between the labour of the tenant and the land and other implements of the landlord.

It is to be noted that in the Smithian and Marshallian notions of share tenant, the tenant is a poor and impoverished tenant who lacks sufficient means of production to undertake cultivation and here the share of

² The share tenants in France were known as *Metayers*. Smith writes that "they have been so long in disuse in England that at present I know no English name for them (1969: 489-90)."

the tenant resembles wages paid in kind.

But a more comprehensive definition has been given by Cheung, a noted proponent of the neoclassical approach belonging to the 'new school', those who embrace the so-called private rights doctrine. Cheung defines share tenancy thus:

Share tenancy is a land lease under which the rent paid by the tenant is a contracted percentage of the output yield per period of time. As a rule, the land owner provides land and the tenant provides labor; other inputs may be provided by either party. Share tenancy is thus share contracting, defined here as two or more individual parties combining privately owned resources for the production of certain mutually agreed outputs, the actual outputs to be shared according to certain mutually accepted percentages as returns to the contracting parties for their productive resources forsaken.

(Cheung, 1969: 3)

Thus, share tenancy is here viewed as a method of resource adjustment between two parties who have unequal resource endowments, and thereby makes production feasible. Here the conflict between the interests of the landowner and the tenant is assumed away. The dominance of the landowner class over the tenants i.e. the economic power relations necessary for the enforcement of contracts is ignored.

There is another variant of the neoclassical approach where share tenancy is explained as a device to stabilise family income which is popularly known as the agricultural ladder hypothesis. This approach seems to have developed in the United States as a way of explaining share tenancy there (Winters, 1978). A strong adherent of this

hypothesis, Robertson, following the Chayanovian³ line of thought argues that share tenancy is an arrangement to mitigate against the instability of the family as a productive unit and he defines:

Sharecropping is a means by which the process of production can be extended at a season's notice beyond the limits of the household, without violating its **integrity** as a unit of property holding and a consumption.

(Robertson, 1987: 1, emphasis added)

Thus, the neoclassicists define share tenancy as a rational endeavour on the part of each of the parties involved to improve upon their initial welfare conditions. Here the socio-economic contexts in which the tenancy contracts are agreed upon are not taken into account. Economic rationality is isolated from the class dimension of a differentiated peasantry.

In contrast to this, Marx proceeds as follows:

As a **transitory** form from the original form of rent to capitalist rent, we may consider the metayer system, or share-cropping, under which the manager (farmer) furnishes labour (his own or another's), and also a portion of working capital, and the landlord furnishes, aside from land, another portion of working capital (e.g., cattle), and the product is divided between tenant and landlord in definite proportions which vary from country to country. On the one hand, the farmer here lacks sufficient capital required for complete capitalist management. On the other hand, the share here appropriated by the landlord does not bear the pure form of rent. It may actually include interest on the capital advanced by him and an excess rent. It may also **absorb** practically the entire **surplus labour** of the farmer, or leave him a greater or smaller portion of this surplus labour. But, essentially, rent no longer appears here as the normal form of surplus value in general. On the one hand, the

³ The theory of peasant economy put forward by Chayanov in the 1920s emphasises the influence of family size and structure on household economic behaviour.



sharecropper, whether he employs his own or another's labour, is to lay claim to a portion of the product not in his capacity as labourer, but as possessor of part of the instruments of labour, as his own capitalist. On the other hand, the landlord claims his share not exclusively on the basis of his landownership, but also as lender of capital.

(Marx, 1974: 803, emphasis added)

Here Marx considers sharecropping as a form of transitory rent and a method of surplus appropriation. Thus share tenancy is viewed as an intermediate form of rent between pre-capitalist ground rent in its pure form and capitalist rent. In contrast to the neoclassical definition of tenancy as an arrangement to increase static allocative efficiency, Marx considers tenancy in a dynamic context. Moreover, the terms and conditions of the contract are not determined at the individual level and on mutual agreement. Rather sharecropping is a class relation between landlord as the dominant class and the farmer as the subservient class. And sharecropping is not a technical arrangement to increase land productivity but a means of appropriating surplus. Thus neoclassicals consider tenancy as essentially a contractual arrangement, whereas Marxists view it as essentially a production or class relation and a method of surplus appropriation.

Neoclassical analysis proceeds in terms of individual rationality whereas Marxists take into account the socio-economic matrix in which an individual is embedded. What neoclassicals explain is choice after a feasible set has been determined. But, what is important and what they abstract from is how the feasible set is determined and who

determines it? In other words who sets the rules of the game? While making a choice an individual has to see where he is and his position in the class hierarchy and what options are open to him out of which he has to choose. And here the prevailing power relation comes into play which restricts the feasible choices of the weaker party in the transaction.

Bhaduri, an eminent Marxist theoretician, argues that class relations embody market relations and that exchange is a surface phenomenon of economic life, reflecting the underlying economic and social organization of production. His main contention is that in backward agriculture market forces are incipient and not adequately developed and that this inadequately developed market forms the basis for precapitalist and feudalistic exploitation. Thus, in this schema the involvement of peasants in market transactions is not triggered by the motive of gains from trade, but under compulsion of subsistence consumption needs which are to be met by entering into loan transactions with the dominant party. And this involuntary involvement in the market results in a cumulative process of forced commerce and unequal exchange by interlinking transactions in other markets like tenancy, produce, assets, labour and so on. Bhaduri emphasizes that in backward agriculture, surplus extraction is in the nature of commercial exploitation and lies in the sphere of exchange rather than in production.

Bhaduri explains share tenancy as a form of labour process and argues that the main intention of such a labour

contract is to extract maximum amounts of man-hours of labour per acre leased out at a minimum of supervision cost under the threat of survival(1983: 88).

In the same vein Pearce (1983) argues:

Sharecropping is one mechanism through which owners of means of production acquire access to others' labour (p.53). Sharecropping as a form of **labour organisation** can be viewed as intermediate between forms of agrestic servitude and the full commoditisation of rural labour itself (p.45).

(Pearce, 1983, Emphasis added)

Thus the neoclassical definition of tenancy is contractual, while the Marxist interpretation of tenancy is one of surplus appropriation. One notes of the Marxist approach that it lacks a macro framework which clearly emphasizes the macro variables that create favourable conditions for the landowning class, which this class then takes advantage of. The contingencies upon which the Marxist superstructure is to be built need to be carefully pointed out. More accurately, the macro variables which limit the feasible choice set of the landowning class or influence their enforcement device need to be recognised.

2.3 ROLES OF TENANCY

Why does tenancy take place? What are the functions or roles of tenancy for which tenancy is so widespread in spite of various government legislation to curb it? From the point of view of the tenant, a tenancy transaction may at one extreme be a voluntary independent decision by a rational individual to enter into a contract with the aim of maximising profit. At the other end of the spectrum, it

may be a compulsive involvement in the production relationship under the threat of survival, even though the returns from it are hardly commensurate to the effort that the tenant puts in. Neoclassicals seek the rationale for tenancy at the first level whereas Marxists explain it from the second perspective. Thus the neoclassical view is that the peasant acts independently in an impersonalised atmosphere under a market structure, whereas the Marxists emphasize that the farmer interacts in a social setting under compulsion, instead of acting atomistically.

2.3.1 Neoclassical Explanation of Existence of Tenancy

The exponents of the neoclassical approach view tenancy as a method of resource adjustment under imperfect market conditions (Bliss and Stern, 1982; Jodha, 1981; Sharma and Dreze, 1990). The imperfections in the markets may arise due to the existence of transaction costs caused by the inherent characteristics of rural markets such as risk, uncertainty, indivisibility, information asymmetry and moral hazard problems.

Transaction costs include information, negotiation, monitoring, coordination and enforcement of contract costs. Kenneth Arrow (1969, 48) has defined transaction costs as the 'costs of running the economic system'. Transaction costs are the equivalent of friction in physical systems. The role of transaction costs in production and contractual choice is increasingly recognised by neoclassical economists (Alston, Dutta and Nugent, 1984; Higgs, 1972).

Therefore, the characteristics of rural markets are to be studied in order to identify the specific features which give rise to transaction costs and thereby necessitate the leasing of land and interlinked contracts as an adjustment mechanism.

2.3.1.1 The Land Market

In backward agriculture, the market for buying and selling of land is quite inactive (Bardhan and Rudra, 1978; Jodha, 1981). Unless forced by extremely adverse circumstances, a cultivator hardly sells his land (Bailey, 1971a). Farmers are reluctant to part with a secured real asset for cash as there exists no alternative profitable investment avenue for the sale proceeds. The markets for stocks and securities are not developed and the financial market is not integrated. Due to significant appreciation in land value, land continues to be both secured and to be a profitable investment. Besides, the ownership of land elevates the status of the owner in the village community. It is often observed that even emigrants from the village, who are settled in urban areas for a long period of time hesitate to sell land as they seek their primordial identity in their native villages. Moreover, existence of high rent provides some assured income to land owner. For all these reasons, land is hardly sold and the market for land exists in tenancy (Bardhan and Rudra, 1978; Jodha, 1981).

It is often argued that the enterprising well-to-do

farmers prefer to lease in land to enlarge their operational holding instead of purchasing land, as the capital equivalent to the purchase value of land gets blocked and thereby expanded production becomes difficult.

2.3.1.2 The Labour Market

As tenancy is primarily a contractual arrangement between land and labour, the market for labour is also worth examining. The market for labour can be studied from the viewpoint of the landless or near landless labourer on the one side and the landlord on the other.

In labour surplus and land scarce backward agriculture, tenancy turns out to be an occupation and a source of livelihood for the land poor households: those who do not have any secured alternative job opportunity (Singh, 1988b). Due to seasonality in agricultural operations it is very difficult for the small holders and landless agricultural labourers to get employment throughout the year. Therefore, poor peasants and landless labourers may prefer to lease in land to depending on uncertain wage employment. Thus to insure against the risk of not getting employment and to avoid the search cost of getting it, landless households rent land.

Sharecropping has become important in a different context in, say, Sub Saharan Africa (Robertson, 1987), and in, say, nineteenth century Iowa (Winters, 1978) both of which have attracted attention. In such contexts, migrant labourers searching for a permanent foothold in the rural

economy prefer to lease in land; or newly married young couples lease in land from their parents to earn their livelihood, as a means of getting on to the bottom rung in the farming ladder. In this context share tenancy is viewed as a cooperative endeavour on part of the landowner and tenant in co-joining their factors of production which leads to an efficient outcome.

If we consider from the point of view of the landowner, at the peak period of agricultural operations, it is very difficult for the landowner to get labour when the demand for labour is very high. Therefore, the landowner may prefer to lease out land. Moreover, even if labour is available, it is very difficult to supervise labour as the outcome of labour input depends on the time that the labourer expends and the effort that he puts in (Akerlof, 1976). Whereas the time element is observable, effort cannot be observed. Thus, there is asymmetry in information about the intensity of effort between the landowner and the labourer. It is very difficult on the part of the landowner to know whether the low yield is due to inadequate effort or due to bad weather. As a result, the labourer can shirk to the detriment of the landowner. This is the problem of moral hazard encountered in owner cultivation with hired labour.

Therefore, tenancy may be construed as a mechanism to reduce transaction costs, with the aim of increasing allocative efficiency due to information asymmetry and moral hazard problems (Braverman and Stiglitz, 1982).

In this context, neoclassicals emphasize imperfect information, risk and uncertainty factors in agricultural operations which give rise to tenancy, whereas classical writers stressed the incentive aspects of share tenancy. Smith viewed sharecropping as progressive, since relative to the serfdom that it replaced, it provided more incentive for greater or more careful application of labour, since a portion of the incremental proceeds due to increased effort accrued to labour. Thus Smith saw the emergence of share contracts on the post-feudal estates of Western Europe as a consequence of the desire to increase labour productivity. Likewise J.S.Mill argued that the tenant "... has a much stronger motive than the day labourer, who has no other interest in the result than not to be dismissed."⁴ Thus it is to be noted that the classical economists instead of condemning share-tenancy for under supply of labour as implied in the Marshallian schema, recognised the positive labour supply effects of share tenancy. Among the neoclassicals Stiglitz (1974) argues that sharecropping is adopted because of its incentive effects (when direct supervision is costly or ineffective) and because of its risk-sharing features.

According to Cheung (1969), a noted neoclassical economist, the choice of contractual arrangement is made so as to maximise the gain from risk dispersion subject to the constraint of transaction costs. Cheung (1969: 67) asserts that 'contracting on a share basis appears to involve

⁴ Quoted from Singh (1988b: 30).

higher transaction costs as a whole-----than a fixed-rent or wage contract.' Transaction costs include supervision and enforcement cost. The principal reasons for the higher costs of supervision are that the landowner must assess the yield and also monitor the tenant's input to prevent shirking. Production risk, on the other hand, is entirely borne by landowners in the case of wage contracts and by tenants under fixed rents, with sharecropping distributing risk to the same extent as product. Thus, Cheung's risk sharing argument provides a positive view of share contracts. Cheung citing some evidence from Taiwanese agriculture argues that sharecropping is associated with more risky crops to facilitate risk spreading in a world with no dependable insurance markets.

Reid (1974) in his study of the United States post-Bellum South distinguishes point and sequential uncertainty. He argues that the former, when 'the product of land and labour' is randomly and immutably affected cannot be reduced but can only be dispersed and that in contrast to Cheung, sharecropping is negatively associated with crops most subject to such uncertainty. Sequential uncertainty, on the other hand, implies the possibility of risk reduction. It implies an ability to take advantage of unforeseen circumstances. Thus, where contracts are flexible, adjustments can be made to ensure the best possible outcome for all concerned. Sharecropping, possessing such flexibility, is therefore preferred for its risk reducing rather than risk dispersing potential.

Hallagan (1978) also does not agree with the risk-spreading argument for the selection of share tenancy as certain empirical evidence does not confirm to it. Rao (1971) found that in South India, it was rice which was sharecropped in assured irrigation areas, while the more risky tobacco crop tended to be rented. In tobacco growing regions the risk averse small holders preferred to lease out land to large operators who are more enterprising; as cultivation of tobacco requires complex decision making due to uncertainty in production and price. Thus if entrepreneurial and management skills are perfectly divisible and if market exists for these skills, those possessing them can obtain returns from them without entering into tenancy contracts. Rao suggested that the choice between sharecropping and renting in agriculture is more closely tied to the provision of entrepreneurial ability⁵ than to the allocation of risk between landlords and tenants. Hallagan goes further and argues that even if all individuals are risk neutral, a system of wage, share, and rent contracts can represent a response to the failure of markets for entrepreneurial inputs to supply the landowner with "just the kind of labor he wants all the while and have it just as he wants it." Due to the information costs in screening of workers of different quality, tenancy can be construed as a screening device by

⁵ Rao (1971: 580) defines entrepreneurial skill thus: "the existence of entrepreneurial function is indicated not by the existence of uncertainty as such but by the scope of decision-making in the face of uncertainty."

which the most efficient and entrepreneurial labourers will self-select themselves by entering into fixed rent contracts and the moderately efficient ones will prefer sharecropping and the least efficient will opt for hiring out labour (Hallagan,1978). Thus in the screening model differences in the allocation of output under the three contracts reflect differences in the provision of entrepreneurial ability rather than differences in preferences towards bearing risk. But, let us stress, in a cohesive, closely knit village economy, the landowner may have good knowledge of the entrepreneurial ability of the farmers and the role of share tenancy as a screening device would then be of far less relevance. This we will discuss in the context of village studies in Orissa.

Reid (1974) sees sharecropping as a preferred contractual arrangement when the labour force though having the productive skills necessary to cultivate, lacks managerial expertise, and the landowner can provide detailed supervision. As such it provides a step on the farming ladder between wage-labour and fixed-rent contracts and eventual owner occupation, whereby the sharecropper can gain valuable managerial experience plus access to capital inputs.

The contexts in which fixed rent contracts may be preferred for crops requiring entrepreneurial skills are nicely summarised by Newbery (1975b) i.e. where (i) tenants have special skills they do not wish to share with land owners, (ii) landowners are more risk averse than tenants,

(iii) landowners face the problem of 'moral hazard' i.e. they cannot determine whether shortfalls in output are the tenant's fault, (iv) landowners may not be able to measure the entrepreneurial skill of a prospective tenant at the time of contract negotiation.

But a pertinent question arises. If the fixed rent contracts provide more incentives than share tenancy then why not move from pure labour contracts directly to fixed rents? Why is share tenancy preferred? One important explanation for this is that share tenancy acts as a credit system for the resource poor tenant.

2.3.1.3 The Credit Market

It is very often observed that formal credit markets are not developed in backward agriculture. This, it is postulated is because, the information costs necessary to establish the creditworthiness of small farms are too large for formal financial institutions to become involved. The risks of default are too high and farmers are unable to provide sufficient collateral to offset such risks. As a result, the small farmer enters into tenancy transactions with a large-holder who can advance production as well as consumption loans at the time of his need. The role of tenancy as a credit system has been emphasized by the classical writers including Smith and Turgot⁶. Smith (1969: 490) writes that "a villein enfranchised, ... having no stock of his own, could cultivate only by means of what the

⁶ For a detailed discussion see Jaynes (1984).

landlord advanced to him, and must, therefore, have been what the French call a metayer." Turgot considered poverty a cause of metayage and not vice versa (Jaynes, 1984: 49). Also Marx viewed share tenancy as a credit system and he explicitly mentions this in his definition of sharecropping "the landlord furnishes, aside from land, another portion of working capital". But Marshall more explicitly and emphatically argues that

This plan (share renting) enables a man who has next to no capital of his own to obtain the use of it at a lower charge than he could in any other way, and to have more freedom and responsibility than he would as a hired labourer; and thus the plan has many of the advantages of the three modern systems of co-operation, profit sharing, and payment by piece-work.

(Marshall, 1961: 644)

Thus the tenant receives capital through the landlord at lower credit terms than he could elsewhere. This statement implies that credit markets are not perfect. Thus this interlinkage between rental and credit contracts can be construed as a mechanism for internalising the externalities generated by moral hazard considerations when production uncertainty and information asymmetries between agents prevail (Braverman and Stiglitz, 1982; Braverman and Srinivasan, 1981).⁷

Sometimes a tenant may advance loans to the landowner and cultivate the land until the landowner repays the loan. This is often termed as usufructuary right over land. The tenant takes the entire produce of land as interest due

⁷ See Taslim (1988) and section 2.5.1.1 for a detailed discussion on this issue.

on loan advanced. This type of land pawning or mortgaging is usually observed in backward and non-irrigated agriculture (Jodha, 1981; Srivastava, 1989a) where returns to land are small.

The role of share tenancy in providing consumption loans or acting as an insurance against hunger has been clearly depicted by Scott (1976: 46) in his moral economy approach:

sharecroppers who can count on interest-free food loans prior to harvest, who are allowed more than their nominal share of the crop in a bad year, who get help in case of illness, who enjoy perpetual tenure, and who can count on petty favours from the landowner have a substantially stronger subsistence insurance than one would infer from the usual division of the crop.

(Scott, 1976: 46)

But most empirical studies reveal, to the contrary, that landlords are not so much moved by charitable impulse shaped by the village subsistence ethic. Rather, their pious gestures are poised to serve self-interest in a concealed manner.

The classical economists mainly emphasised share tenancy as an incentive and credit system whereas the neoclassicals stress share tenancy as a method of spreading and sharing risk to avoid transaction costs in the world of imperfect information and uncertainty.

2.3.1.4 The Capital Market

Interlinkage of land and labour may be a response to solve the problem of indivisibility or to gain economies of scale. Thus, sharecropping may serve the purpose of

enabling a fuller utilisation of the non-marketable resources (like family labour, female and child labour, draft animal labour) possessed by the tenant family. The absence of market in which the farmer can sell the services of his indivisible factors like his bullocks or his own managerial skills in his spare time prompts him to lease in land and reap the scale economies arising out of such indivisibilities.

In backward agriculture, for a peasant household next to land a pair of bullocks is a necessary requirement to undertake cultivation.⁸ As the bullock market and the rental market for bullocks are not developed, those who have an amount of land that is less than what is required for the optimum utilisation of a pair of bullocks lease in land. Therefore, some economists view tenancy as a bullock adjustment mechanism (Bliss and Stern, 1982; Jodha, 1981). Moreover, in comparatively advanced agriculture, for the utilisation of pumpsets to irrigate land in a compact block and to use a tractor in an extensive field i.e. to reap economies of scale due to indivisibility of factors, large capitalist farmers lease in land.

Likewise to reap economies of scale or to have the landholding in a compact block, the large farmers may lease in land and some times lease out to organise cultivation

⁸ In fact the bullock is a multipurpose good for the cultivator. It is the major source of draught power used for different operations like ploughing, threshing, irrigation and transport. It is a capital asset to the cultivator, determining his social status and creditworthiness. It is a source of supply of manure to the farm. See Bharadwaj (1974: 32) for a detailed account.

without running into enormous supervision costs.

To sum up, the neoclassicals view tenancy in general and sharecropping in particular as a method of resource adjustment, an interlinked transaction between land and labour and other factors of production to minimise transaction costs which arise due to the existence of risk, uncertainty and moral hazard problems in rural market transactions. Bardhan(1984a: 95) writes "If there were a complete set of perfect markets, tenancy would have been theoretically uninteresting or insignificant. Its rationale lies more in the imperfections and inadequacies of the various input markets in agriculture." Thus the neoclassicals study tenancy in the exchange sphere emphasising the role of transaction costs due to market imperfections whereas Marxists view it as a production relation based on surplus appropriation.

I.Singh in a concise way summarises the neoclassical position on tenancy by noting the conditions under which share tenancy promotes efficiency:

Tenancy arrangements in general, and sharecropping contracts in particular, can serve a variety of useful purposes in an environment in which markets for land, labor, credit, information, and entrepreneurial and managerial skills are underdeveloped and imperfect, and in which risk is endemic, transaction costs are high, and indivisibilities and fragmentation of holdings present major problems. Under these circumstances, sharecropping, which appears economically inefficient in a 'perfect' world, becomes a realistic second best solution.

(Singh, 1988b: 37)

There is another variant of neoclassical explanation which emphasizes the equilibrating role of share tenancy in stabilising family earnings in a world of uncertainty. Each

family passes through a cycle of growth, fission and decline and as a result its needs and capacities change, necessitating adjustment behaviour. Robertson(1987: 14) argues that

Domestic groups are inherently unstable, and in dealing with the pressures which this causes in the short and medium term, **cooperative arrangements** like sharecropping play a vital role: they allow households to barter surplus resources by establishing complementary relationships, which need not violate the long-term integrity of the family as a unit of reproduction, consumption and property-holding. The balance of exchanges can be sustained within the household only in the long run (children 'repay' their subsistence loan by supporting their parents later, or transferring the credit to a rising generation) (p.14). Sharecropping implies a greater degree of collusion, an active concern for the combination of resources throughout the crop season, than is ever likely to be the case with other agrarian arrangements like fixed rents and wage labour (p.15).

(Robertson, 1987: 14-15, emphasis added)

We note that this sort of explanation of share tenancy in terms of a stabilising mechanism in the domestic cycle of a family is location specific, usually observed in Sub-Saharan Africa, Ecuador and Malaysia. It may be relevant in these regions, but does not necessarily fit the South Asian context. As family ethic and values are different, then such explanation will not hold. A father advancing a loan to his offspring which is to be paid back may be unlikely in these contexts.

2.3.2 Marxist Explanation of Existence of Tenancy

The analytical framework of Marxists differs fundamentally from that of the neoclassicals. The neoclassicals consider share tenancy as a response to imperfections in markets, whereas Marxists view it as a

transitory form of rent (Marx, 1974), a labour process (Bhaduri, 1983b), a mechanism of labour mobilisation and an intermediate method of surplus appropriation (Pearce, 1983) or a kind of formal subsumption of labour under capital characterised by absorption of absolute surplus value (Gupta, 1980) in the context of a dominant and dependent class structured society. All the Marxist writers explain share tenancy in a dynamic context in the evolution of society from feudalism, or a pre-capitalist mode of production to capitalism, whereas the neoclassicals consider it in a static ahistorical framework. Thus the neoclassical explanation of share tenancy is allocative at the micro level whereas the Marxist interpretation is an exploitative mechanism in a class society in a macro context.

Sharecropping involves interaction between households which differ in their command over land and other means of production. Thus, in the Marxist framework inequality in resource endowment is the prime reason for share tenancy to take place. Therefore, to explain share tenancy one has to probe into the causes of inequality in property ownership which is not a once and for all phenomenon in a society. It is given for individuals in the society into which they are born. It is the outcome of the behaviour of their ancestors which they inherit and in their own behaviour they modify it and leave it for their descendants. Therefore, what is observed today is nothing but an essential link between past and future. Past history as well as a coming future

are important in explaining the relevant phenomena in the present world. Thus, sharecropping can be best understood in terms of the motion of the society and its dynamics.

2.3.2.1 Share Tenancy as Transitory Form of Rent

Marx considered sharecropping "As a transitory form of rent from the original form of rent to capitalist rent and rent no longer appears here as the normal form of surplus-value in general and the share here appropriated by the landlord does not bear the pure form of rent, may actually include interest on the capital advanced by him and an excess rent." Here by original form of rent Marx refers to precapitalist ground rent which can be labour rent, rent in kind, or money rent where unpaid surplus labour passes directly to the hands of the feudal lord/landlord/state in the form of corvee labour/tribute /tax. And in this case of ground rent in its pure form, the entire surplus labour is absorbed in rent. In contrast to this, in the case of sharecropping rent what we see is not the pure form of ground rent. It may include the entire surplus value or part of it and very important, interest on capital advanced by the landowner to the sharecropper. Thus Marx emphasises that in share tenancy land, labour and credit markets become interlinked.

Sharecropping is viewed as intermediate between pre-capitalist ground rent and capitalist rent. So what is capitalist rent and how does it differ from pre-capitalist rent? According to Patnaik (1983:): "Pre-capitalist rent

represents the surplus of output value over production costs including customary consumption of the petty producer, while capitalist rent represents the surplus of output value over the price of production (which includes average profit)". In the case of capitalist farming, profit instead of rent becomes the normal form of surplus value and rent still exists solely as a form, not of surplus-value in general, but one of its offshoots, surplus-profit. The average rate of profit is determined outside the country-side and in the urban trade and manufacturing sector. That is why size of the profit does not determine rent, but on the contrary it is determined by the rent as its limit.

2.3.2.2 Share Tenancy as Labour Mobilisation

However, Marx did not deal with sharecropping in greater detail. He gave only brief attention to it in his Chapter XLVII 'Genesis of Capitalist Ground-Rent' (1974: 782-813). An elaborate Marxist formulation of sharecropping is given by Pearce (1983) where he discusses sharecropping as a means of labour mobilisation to extract surplus.

According to Pearce the choice of contract depends on i) the level of class dominance and ii) the nature of the labour process. The labour process describes the manner in which direct labour is combined with means of production in productive activity i.e. it includes the technique of production, cropping pattern adopted and organisation of labour itself. When labour processes are characterised by

uncertainty, the extent to which one class can extract surplus labour from another increases, because the resource poor are not able to take risk or cope with uncertainty. Consequently, the bargaining power of the rich is enhanced. The landowner's motive is to increase the produce from his land, and the smallholder or landless labourer will try to increase the outcome of his labour. The ultimate result will depend on which party will be able to enforce its interest. The landowner faces the cost of supervision if he chooses to cultivate the land with hired labour. The class relations in conjunction with the labour process determine the method of surplus appropriation most consistent with dominant interests. Therefore, he opts for leasing out the land preferably on share contracts which will provide some incentives to the tenants to carry out the requisite tasks carefully. Labour rent will be acceptable to the landowner if the labour process is such that the supervision costs are not excessive. When the economic position of landowners and tenants is more equal the choice of contract will depend upon the labour process. If the uncertainty attached to production is considerable and both parties are risk averse, the likely outcome is share contract.

Likewise Bhaduri (1983b: 91) portrays the share tenancy contract as a labour process which substitutes direct supervision. Under the threat of survival, the landowner can extract the required work effort from the tenant by different enforcement devices like leasing out land in small parcels and preferably to large families.

2.3.2.3 Share Tenancy as Formal Subsumption of Labour

Gupta (1980) explains share tenancy as a transitory phenomenon between feudalism and capitalism. Capitalism is defined as generalised commodity production when products as well as factors of production including labour behave as commodities. To qualify further, capital as a commodity must dominate labour as a commodity. According to Marx capitalism is fully developed when there comes about real subsumption of labour under capital. Its foundation is laid by formal subsumption of labour under capital. In the case of formal subsumption of labour under capital, the technology remains the same and surplus value is extracted by lengthening the working day i.e. appropriating absolute surplus value. Appropriation of absolute surplus value always precedes the extraction of relative surplus value when real subsumption of capital takes place. Marx stressed the necessity for the minimum amount of capital for the real subsumption of capital to come about. Therefore, under the formal subsumption of labour accumulation takes place which revolutionises the technology and ultimately labour is really subsumed under capital.

Thus formal subsumption of labour is transitory and Gupta argues that sharecropping is nothing but a form of formal subsumption of labour under capital. As in the case of sharecropping, the tenant lacks the means of production and his labour becomes subsumed under the capital i.e. land and other means of production provided by the landowner to make his reproduction feasible. But empirically it is

observed that part tenants i.e. who cultivate their own land as well as leased-in land are more numerous than landless tenants. The small farmers lease in land to utilise indivisible resources optimally. Therefore, Gupta's argument that tenants are alienated from the means of production is not tenable. Rather the possession of means of production enables the tenants to lease in land. Marx (1974: 803) stresses this in his definition of sharecropping: "The sharecropper whether he employs his own or another's labour, is to lay claim to a portion of the product not in his capacity as labourer, but as possessor of part of the instruments of labour, as his own capitalist."

In this context Pearce's argument (1983) is more convincing. According to him sharecropping can be consistent with capitalist relations but only in a transitional sense in so far as it is associated with labour processes typical of non-capitalist modes of production, but subsumed under capitalist relations. Sharecropping is a method of surplus appropriation to the extent that it provides incentives for increased effort from direct producers where supervision costs are high. But with substantial intervention of capital into the labour process, supervision itself becomes part of the production process and becomes unnecessary. Therefore, sharecropping is an intermediate method of surplus appropriation and it will tend to disappear with capitalist accumulation.

The Marxist position on share tenancy can be

summarised thus:

- (i) Tenants are not voluntary participants in the tenancy contracts and are compulsively involved in the enforced transaction because of their vulnerability to adverse conditions due to a poor resource base.
- (ii) The function of exchange is not to clear the market at an equilibrium price, but to give advantage to one party at the expense of the other party. It is, thus unequal exchange

2.4 TENANCY AND EFFICIENCY

Share tenancy is often considered as a feature of feudalistic or pre-capitalist backward agriculture and is seen to be inefficient. Most of the early writers on share tenancy in the eighteenth and nineteenth centuries strongly condemned it. Thus to the Marquis of Mirabeau share tenancy was a "deplorable method of cultivation, the daughter of necessity and mother of misery."⁹ Arthur Young, in his Travels, described the metayer system in France and strongly condemned it: "There is not one word in favour of the practice, and a thousand arguments that might be used against it."¹⁰ Likewise McCulloch wrote "and wherever it has been adopted, it has put a stop to all improvements, and has reduced the cultivators to the most abject

⁹ Quoted from Basu (1984a: 125)

¹⁰ Quoted from Johnson (1950: 260).

poverty."¹¹

But recently there has been a spurt of empirical work which claims that share tenancy can be efficient¹² and that it is a response to an imperfect world. Reid (1976: 576) claims that "sharecropping is chosen for its efficiency, not in spite of its inefficiency." With regard to the efficiency implication of tenancy the classicals, neoclassicals and Marxian writers hold different views. To avoid unnecessary sub-categories we join together the classical and neoclassical view under one head as their analytical framework is common.

2.4.1 Neoclassical View on Efficiency of Share Tenancy

Any discussion of the efficiency implication of sharecropping as an institution conveniently begins with Adam Smith. His interest lay in two central issues: the impact of product sharing on intensity of labour effort, and its implication for capital accumulation and on-farm investment. Smith argued that share tenancy provides some incentives to effort and that as a result labour productivity will increase as the labourer knows that part of the proceeds from the increased effort will accrue to him. But the tenant would be extremely reluctant to employ his own capital on the farm as the landlord would receive a large part of the resultant product. In the words of Adam

¹¹ Quoted from Johnson (1950: 261).

¹² see Vyas (1970), Rao (1971), Parthasarathy and Prasad (1978), Bliss and Stern (1982) and Sharma and Dreze (1990) and others.

Smith "It could never, however be in the interest of (the metayer) to lay out, in the further improvement of the land, any part of the little stock which they might save from their own share of the produce, because the lord, who laid out nothing, was to get one-half of whatever is produced (1969: 491)."

The attitude of the classical economists towards share tenancy was of disapproval and strong condemnation because of it acting as an effectual bar to agricultural progress by undermining investment. The exceptions were J.S. Mill and Sismondi who did not disapprove of share tenancy per se but attributed the widespread insecurity of tenure which existed, particularly in France, as the root cause of poverty and lack of investment. They were impressed by the example of Tuscany where sharecropping was deemed compatible with a prosperous agriculture as security of tenure existed. Sismondi himself was a resident landlord of that area.

The first formal statement concerning the allocative implication of sharecropping is presented by Marshall which is known as the traditional, neoclassical, or tax-equivalent approach. It is curious to note that until the time of Alfred Marshall it was not clearly recognised that the argument which showed that the share-tenant would under-invest capital also sufficed to show that he would under supply work effort. In Marshall's words

For, when the cultivator has to give to his landlord half of the returns to each dose of capital and labour that he applies to the land, it will not be to his interest to apply any doses the total return to which

is less than twice enough to reward him. If, then, he is **free to cultivate as he chooses**, he will cultivate **far less intensively than on the English plan**; he will apply only so much capital and labour as will give him returns more than twice enough to repay himself: so that his landlord will get a smaller share even of those returns than he would have on the plan of a fixed payment.

(Marshall, 1961: 644, emphasis added)

Marshall illustrates this with the help of a diagram¹³. Thus according to Marshall under sharecropping total per hectare product and total per hectare land rent accruing to the landlord will be less than optimal. Though Marshall is often quoted as the chief architect of the inefficiency argument of sharecropping, he himself very well knew that if the landowner possessed the opportunity to determine the inputs which the tenant applies, then an efficient solution would result. This is quite clear when he writes (in his side notes): "if the control of the landlord is slight the cultivation is poor; but if it is effective the results may not be very different from those on the English plan (1961, 644-45)." Marshall also eulogises sharecropping by suggesting that "this plan has many of the advantages of the three modern systems of co-operation, profit sharing, and payment by piece-work (p.644)."

But what worried Marshall was that under fixity of tenure as it existed in many parts of Europe, an efficient outcome depended on constant supervision and interference by the landlord. Marshall specifies the situations where share tenancy may be more efficient "the advantages of the

¹³ That will be displayed in Chapter VII.

metayer system are considerable when the holdings are very small, the tenants poor, and the landlords not averse to taking much trouble about small things: but that it is not suitable for holdings large enough to give scope to the enterprise of an able and responsible tenant (p.645)." Thus Marshall was aware of the fact that most of the defects of share tenancy were a function of how it was practised in a given context, and that there were conditions¹⁴ under which it could operate efficiently.

Thus Marshall is erroneously associated with the inefficiency argument on share tenancy. The diagram based on excise tax analogy which was discussed in a footnote(p.614) cannot be considered as his central argument as the intention was only to show why the landlord must supervise to keep the tenant to his work (Jaynes, 1984: 53).

Johnson (1950: 271) identified three techniques by which the landlord may enforce the desired intensity of cultivation by the tenant:

- (i) By specifying in great detail what the tenant is required to do: cropping pattern, cultivation technique, labour input, fertiliser application and other input use
- (ii) By sharing input costs in the same ratio as the crop share i.e. cost sharing

¹⁴ Conditions for efficiency as implied from Marshall's writings are if (i) there is no fixity of tenure and the contract is flexible (ii) if the landlord can supervise and monitor the tenant's use of inputs and (iii) share in input costs.

(iii) By granting short-term leases which makes possible periodic review of the performance of the tenant

To this there is an additional point that by leasing out land in small parcels to many poor tenants the landlord can impose an increased intensity of effort . on the tenants who crucially depend on the meagre plot of leased land to earn their livelihood. Among these alternatives Johnson stresses the third technique i.e. limiting the duration of leases to bring about efficient utilisation of land. Cheung accepted the first technique of enforcing the desired intensity of cultivation on the tenant and formalized it in his model. Newbery (1975b) incorporated the second mechanism in his model and Adams and Rask (1968) favoured the second technique in modelling the efficiency of tenancy contracts.

However, Cheung (1969) was first formally to outline not only how sharecropping might be as productive as other forms of contract, but also the contexts in which it might be the preferred contract. Cheung (1969: 4) argues that "The implied resource allocation under private property rights is the same whether the landowner cultivates the land himself, hires farm hands to do the tilling, leases his holdings on a fixed rent basis, or shares the actual yield with his tenant." Cheung's model is often referred to as the "private property rights approach".

Cheung develops a model to demonstrate that with well-defined private property rights and free markets, resource

allocation must be efficient, regardless of the choice of tenancy¹⁵. In his model the landowner's objective function is to maximise his wealth given his total land holdings subject to the constraint that the tenant gets his alternative earnings i.e. his wage income. The control variables in the landlord's hand are the number of tenants among whom the given land holding will be parcelled out, the rental percentage and the tenant inputs. Thus in Cheung's model the rental ratio is endogenously determined whereas the wage is given that will be achieved in a competitive wage labor market. Thus by assuming free and competitive market Cheung completely ignored the overwhelming evidence that the choice of share tenancy is founded on the existence of fundamental market imperfections. Cheung treats rental share as the outcome of the landlord's profit maximisation exercise. In Cheung's model transaction cost is zero, therefore the landowner can monitor the tenant input level whereas in Marshall's model transaction cost is infinite as it is left to the tenant to decide its own input intensity.

The pertinent question arises that if all forms of tenure lead to optimal allocation of resources characterised by Pareto-efficient competitive equilibrium results as propounded by Cheung; what determines the choice of contract? Cheung suggests that the choice of contractual arrangement is made so as to maximise the gains from risk

¹⁵ Cheung's model will be discussed in detail with the help of geometry and algebra in Chapter VII.

dispersion subject to the constraint of transaction costs. Cheung's model has been subjected to scathing criticism for his unrealistic assumptions.¹⁶ The assumption of perfect competition and full employment is questioned. As share tenancy is pervasive in over populated and land scarce economies where unemployment is the stark reality. Jaynes (1984) argues that the existence of risk and transaction costs implies that markets are incomplete or imperfect. Therefore a Pareto-efficient outcome in the first best sense cannot be achieved. Jaynes (1984) concludes that "the use of share contracts must be understood as an imperfect response to incomplete and imperfect markets caused by fundamental imperfections of information and the resulting transaction costs."

2.4.2 The Marxist View: Share Tenancy as a Theory of Stagnation

Marxists consider the efficiency implication of share tenancy in a dynamic context. They argue that share tenancy is a remnant of feudalism and its persistence inhibits productive investment by diverting reinvestible surplus into unproductive channels like rack renting, usury, trading etc.. Thus share tenancy being a feature of agricultural backwardness also perpetuates underdevelopment and thus causes stagnation in agriculture. Views of eminent Marxists on this issue are discussed below.

¹⁶ See Bardhan and Srinivasan (1971), Koo (1973), Mazumdar (1975), Bell (1976), Chandra (1974), Jaynes (1984), Basu (1984a) and others.

2.4.2.1 Bhaduri's Model of Agricultural Backwardness

A distinguishing feature of the Smith-Marshall model of sharecropping is that the decision as to whether or not to invest or innovate is taken by the tenant, not by the landowner. In that model the landlord is passive, a sleeping partner, a pure rentier, while the tenant exercises the role of a decision maker. Recently an alternative model has been presented by Bhaduri (1973) in which the roles played by the sharecropper and landlord are reversed: the landlord is the active agent, in the sense that it is he who decides whether or not to innovate, while the tenant remains passive, becoming little more than an agricultural labourer paid in kind (Griffin, 1974:85).

In Bhaduri's model the semi-feudal landowner derives his income both from property right to land and usury. That is the landowner has two sources of income: (i) the rental income that he gets from the leased out land and (ii) the interest that he charges for the loan advanced to tenants. If the landowner adopts technological innovation, the productivity will increase and consequently the crop income of the tenant will increase in absolute amount even if the share remains the same. Therefore the tenant will borrow less to meet his consumption needs and the landowner will suffer losses in interest income. Therefore, the landlord will be discouraged from introducing any technological improvement so long as his gain in rental income from increased productivity brought by technological change falls short of his loss in income from usury due to a

reduction in the level of consumption loan required by the farmer.

Bhaduri even argues that the semi-feudal land-owner will resist big investments as it makes the tenant free from perpetual debt and destroys the political and economic control of the land-owner on the tenant, even though on an exclusively economic grounds it may be profitable to him. Thus technological backwardness may be used as a control variable to reinforce existing asymmetry of economic power relations. A land-owner may be inclined to adopt innovation, if he is benefited by it. But in order to promote his class efficiency and to maintain his economic power over time, he will prefer not to invest. Thus, here maintenance of class efficiency in a dynamic context will distract him from adopting technical innovation (Bhaduri, 1990). In this schema production relations act as a fetter on development of forces of production.

But it has been argued by Ghose and Saith (1976), Griffin (1974) and Newbery (1975a) that if the landlord has sufficient power to withhold innovation, then he can extract the extra gain from the innovation by manipulating the rental share, the interest rate and other terms and conditions of the contract. Bhaduri's assumption of exogenously given rental shares and interest rates is questioned in the context of power relations that exist in backward agriculture as Bhaduri portrays them to be. Ghose and Saith (1976) have developed a model of accumulating debt and their conclusion is diametrically opposite to that

of Bhaduri. They stress that the stronger the domination of landlord the more readily he accepts the technological improvement. Bhaduri does not adequately explain the mechanism of the debt trap on which his theory rests squarely (Basu, 1984a: 116). That is, how does the indebtedness of the tenant persist and how is it an ongoing process in the village? Newbery (1975a) clearly points out that the trap exists without the exercise of any power by the landlord. The peasant could free himself through his endeavour. A good year with a slightly better than usual harvest could set the peasant on his way to freedom. Therefore, the foundation of Bhaduri's thesis as a theory of stagnation is quite flimsy.

Basu (1988) argues that several economists in their insistence that interlinkage results in inefficiency have partly exonerated the exploitative character of rural moneylenders. The reason is that if in a group, one agent is perfectly exploitative, then it is in the agent's interest to enlarge the cake as much as feasible, i.e. to extract all consumers' surplus from whoever deals with him by giving him only the subsistence requirements. If the monopoly moneylender happens to be the landlord then it is very easy for him to extract all consumers' surplus from the borrowers and the outcome is efficient. Basu cautions that his view should not be interpreted that rural markets are efficient but what he emphasizes is that inefficiency cannot be explained by interlinkage as some of the early writers in this area had believed.

Newbery (1975a) argues that economic circumstances which lead to sharecropping may make some innovations which increase moral hazard unattractive. But to treat this as a hypothesis of non-innovation one must first adduce good reasons or evidence as to why innovation would increase moral hazard problem (Basu, 1984a: 120). But many studies reveal that the single most powerful obstacle to the adoption of improved technology is the lack of finance and scarcity of credit (Byres, 1981; Griffin, 1974; Newbery, 1975b). Therefore, unlike in Bhaduri's model, the absence of innovation may be due not to the landowners' reluctance but to an inability to innovate.

Moreover, the axioms of Bhaduri's model are suspect as certain empirical evidence prove the contrary (Bardhan and Rudra, 1978, 1980; Bharadwaj and Das, 1975; Khasnabis and Chakravarty, 1982 and others). Usury as the main mode of exploitation was found to be very rare and no strong interlinkage between tenancy and credit contracts was observed. The landlord was found to take a lot of interest in productive investment by sharing in input costs and participating in decision making. Bharadwaj and Das's study of some villages in Orissa revealed that new technologies were absorbed while the exploitative hold was retained through appropriate changes in tenurial systems.

2.4.2.2 Patnaik's Argument: Existence of Pre-capitalist rent as barrier to investment

Patnaik (1983), a leading exponent of Marxist ideas,

argues that investing a given sum of money in direct capitalist cultivation in agriculture is conditional upon that sum of money yielding a surplus profit at least equal to the existing level of pre-capitalist rent over and above the average profit. Thus in a situation where capitalist production is confronted by existence of high level of pre-capitalist ground rent as a historically given conditions (as in India), this must also constitute a barrier to investment.

Patnaik's argument can be explained as follows. Suppose that a landlord has one acre of land which he has leased out and that his rental income from that acre of land is Rs.R and if he decides to self-cultivate the land he has to invest Rs.M in fixed and working capital. Here his opportunity cost of investing that sum of money in agriculture is the average profit say, Rs.P that he could have earned in alternative uses like trade, industry or depositing in bank and on top of that the rental income of Rs.R which he foregoes now. Thus he will be willing to invest Rs.M in cultivation if he expects a profit of Rs. $P+R$. In short, direct cultivation requires that a given capital earns surplus profit equal to pre-capitalist rent, over and above average profit. Thus a discrete rise in profits from agriculture is a precondition for the onset of capitalist farming.

2.4.2.3 Bharadwaj's View: Diversion of Reinvestible Surplus

Bharadwaj (1985) has a broader framework than Patnaik as she takes into consideration the widespread existence of interlinked transactions where the landlord's income is not restricted to only rent. He also advances loans at exorbitant interest rates to his tenants, and gets labour at less than the prevailing wage rate and buys crop produce at a pre-determined lower price at the time of harvest. Therefore, the landlord's income is from a variety of sources and the aim is to extract maximum surplus from the deficit households.

Bharadwaj argues that the greater the predominance of chronically deficit households in the rural communities, the greater the diversion of re-investible resources into unproductive channels like usury, trading, labour attachment and tie-in-sales etc. . Rural underdevelopment is thus attributed mainly to the existence of precapitalist mode of exchange which acts as a fetter on the development of productive forces and thereby reinforces the existing production relations. If the forces of productive accumulation, nurtured by a set of favourable initial conditions, generate a minimum pace, then they can succeed in breaking through the fetters of precapitalist remnants. In certain pockets like Punjab and Haryana where this has been achieved, there has come about capitalist accumulation and investment.

On the other hand, several economists argue that

interlinkage cannot explain the rural backwardness as exists in today's South Asia, the reason to be sought somewhere else. Khasnabis and Chakravarty's (1982) survey of tenurial arrangements in Nadia district of West Bengal reveals that no strong interlinkage could be found between tenancy contract and credit contract. A model of agrarian backwardness should therefore to be based on some explanatory factors other than the interlinkage between credit conditions and tenurial arrangements. A non-legalised sharecropping arrangement that assures a high share of produce for the landowners wielding semi-feudal authority over the tenants in a near stagnant agrarian economy, is the typical reality with respect to the observed households. No neat model on the lines of differential risk aversion, or varying bargaining power of individual lessors or lessees (Bharadwaj and Das, 1975b) seems to be applicable to such an economy. An alternative analysis, mainly socio-political in nature, which discusses the process of interaction between the semi-feudal authority and the rural masses, might give a better insight into the problem.

But Lehman (1985) in his study of Ecuador argues that there does not seem to be any inherent incompatibility between sharecropping and capitalist development. Taslim's (1988) study of Bangladesh agriculture also reveals that land, labour and credit markets were not interlinked to any significant extent.

The increasing evidence of big farmers leasing in land

and small farmers leasing out land in agriculturally advanced regions of India¹⁷ suggest that sharecropping does not in itself denote an exploitative relationship in which the lessor inevitably has the upper hand: he may be the impoverished victim of the contract and the tenant the prosperous capitalist. A detailed discussion of interlinked transaction follows in the next section.

2.5 SHARE TENANCY AND INTERLINKAGE

In underdeveloped agrarian economies it is very often observed that transactions in several markets are intertwined in a significant way in the sense that a transaction in one market becomes contingent upon a transaction in another market. A landlord and his tenant enter into several transactions at the same time; in leasing out land, in hiring labour, in providing credit, in sharing of input costs, in marketing of output etc. all as part of a comprehensive interlinked contract encompassing several markets. Thus interlinkage of factor markets is said to take place when contracts regarding several interdependent market transactions are simultaneously agreed upon between the same parties.

The fundamental difference between the neoclassical and Marxist analysis of share tenancy is that the neoclassicals view it as a transaction or as an exchange mechanism caused by market imperfections; while Marxists,

¹⁷ See Nadkarni (1976: A141), Vyas (1970: A75), Singh (1989: A88), Jodha (1981) and Srivastava (1989a).

consider it as a production relation as it is not simply an interlinked deal between land and labour, but rather makes production feasible and share tenancy is a system of production organisation.

2.5.1 Why Interlinkage Takes Place?

The interlinking of markets is interpreted differently by neoclassicals and Marxists. The neoclassicals emphasize that interlinkage is the means by which a profit maximising land-owner overcomes the inefficiencies of incomplete and imperfect markets and which facilitates increased efficiency and higher social welfare. But the Marxists believe that the purported increase in social welfare is experienced entirely, and cumulatively over time by the landowning class while the welfare of the tenant class is continuously forced back to the bare survival level.

This point is clear from the way the neoclassicals and the Marxists define interlinkage. According to Braverman and Srinivasan (1984: 65): "Interlinked contracts may be defined as transactions in more than one commodity or service made between the same pair of individuals and linked in an essential way.....An essential feature of this definition, therefore, is that delinking the contracts would be infeasible or costly for at least one party."¹⁸ By contrast Bharadwaj (1974: 4) argues: "Such interlocking of markets increases the exploitative power of the stronger

¹⁸ Braverman and Srinivasan (1984) also recognise that in the case of forced linking, interlinkage may not be a Pareto-improving move.

sections because, while there could be limits to exploitation in any one market - due to traditions or conventions - or due to economic factors, the interpenetration of markets allows them to disperse exploitation over the different markets and to phase out exploitation over time as well."

2.5.1.1 Neoclassical Explanation of Interlinkage

It is argued by neoclassicals that rural markets are characterised by potential risk and that this generates an inherent tendency for them to get interlocked with each other to reduce the associated risk. Therefore, the most plausible explanation of interlinked deals is that it ensures insurance against risk and moral hazard in a world of uncertainty and information asymmetry.

Bardhan (1984b) argues that "In a world of costly information, an interlinked system of personalised transactions may serve the function of reducing some of the market costs of work monitoring, contract enforcement and of search by making the possible discovery of dishonesty or shirking by an agent in one transaction, too costly for him in terms of its spill over effects threatening other transactions."

Stiglitz (1986) shows why it will be profitable for the landowner to interlink tenancy with the credit market. Clearly, the terms of contract with the landlord will affect the lender and vice versa: if the landlord can, for instance reduce the probability of default by supplying

more fertiliser, the lender is better off. The actions of the borrower (both with respect to effort and choice of technique) may be affected by the individual's indebtedness, so that the landlord's (expected) income may be affected by the amount (and terms) of indebtedness. There appears to be clear and possibly significant externalities between the actions of the landlord and the actions of the lender, a natural market solution is to internalize the externality, and that is precisely what interlinkage of markets does. Jaynes (1982) also notes that "Since the landlord must monitor the terms of the contract with the tenants anyway, it will often be advantageous for him to also be the tenant's direct creditor or an intermediary between the tenant and a credit specialist."

To sum up, interlinked rental and credit contracts may be a device to internalise externalities generated by moral hazard considerations when production uncertainty and information asymmetries between agents prevail---- as in the case when it is difficult to monitor for the landlord if the tenant's low input is the result of inadequate effort or bad luck. The land-owner provides a consumption loan to the tenant to induce him to work harder, advances production loans to enable the tenant to adopt improved package of practice and shares in cost to increase in the input intensity use, all aiming at getting increased yield (Braverman and Stiglitz, 1982). Thus interlinking of land, labour and credit markets can be regarded as an attempt to improve allocative efficiency by reducing transaction costs

in the face of risk and moral hazard in the absence of any insurance market. This is precisely what the neoclassicals argue for the existence of interlinked deals.

2.5.1.2 Marxist Explanation of Interlinkage

Marxists, however, believe that interlinked transactions are devices of the dominant party to subjugate the poor and to increase their economic and political power in the village community. The land-owner is not concerned about increase in productivity. Rather his aim is to extract surplus to swell his coffers even at the cost of social welfare. Bhaduri's model of interlinkage between tenancy and credit as already explained is nothing but a mechanism to keep the tenant perpetually indebted so that he can act as a permanent host for the landlord parasite. The various instruments that are interpreted in the neoclassical analysis as increasing the efficiency of sharecropping are deemed in the Marxist formulation as improving the effectiveness of surplus extraction.

2.6 SHARE TENANCY AND ITS DYNAMICS

Sharecropping is an institutional arrangement and a form of production organisation on terms and conditions which are often structured by norms of behaviour that evolve from repeated human interaction in a closely-knit adhesive village social unit.

Neoclassicals and the Marxists differ on their views on the mechanism of institutional change. Neoclassicals

stress that institutions are transaction cost minimising arrangements which may change and evolve with changes in the nature and sources of transaction costs and the means of minimising them. In most of the neoclassical models the assumption is that competition, actual or potential, among alternative institutions would assure the emergence of efficient institutions at any point of time. Marxists are primarily concerned with the dynamics of share tenancy contracts in the context of changing social formation and its transition from feudalism to capitalism. They emphasize that institutional change is brought about to reinforce the mechanism of surplus extraction by the dominant class from the depressed. Thus enhanced surplus extraction and not promotion of allocative efficiency is the test of institutional change.

Among the neoclassicals Ruttan and Hayami (1984) have explicitly dealt with the changes in share tenancy contracts and among Marxists Lenin has sufficiently discussed on issue of tenancy. Therefore, we have taken up these two opposite views on institutional change for our narration of the dynamics of tenancy contracts.

2.6.1 Ruttan and Hayami's Induced Innovation Model

Ruttan and Hayami's (1984) induced innovation model has the typical neoclassical characteristic that it analyzes institutional innovation or change in a demand and supply framework. On the demand side, the institutional innovation may result from changes in relative factor

endowments and relative factor prices. More specifically, as factor input scarcities change it becomes profitable for entrepreneurs to undertake the costs of institutional innovation. In addition, technical innovation resulting in new income streams can result in demand by certain groups to change the method by which such gains are distributed.

The supply side is, according to Ruttan and Hayami, less well understood. In order to supply institutional innovations, substantial political resources will have to be mobilized by political entrepreneurs and innovators. Thus the costs of mobilizing such resources will play an important role, as well as the expected return (demand), in determining the extent to which innovations will be supplied. These costs would seem to be critically dependent on the power structure or balance among vested interest groups in a society. If those interest groups which will be harmed by institutional innovation are extremely powerful, the costs of carrying out such innovation is likely to be high. Thus the institutional innovation may not be forthcoming even if it is expected to produce a large net gain to society as a whole. Socially undesirable institutional innovations may occur if the returns to the entrepreneur or interest groups are high. Again, cultural endowments, including religion and ideology which are assumed to be exogenously given, also exert a strong influence on the supply of institutional innovations.

Ruttan and Hayami test their model of induced institutional innovation with data on land tenancy

relations in a rice-growing village of the Philippines, East Laguna for the period 1956-76. In the study area rice production per hectare increased by a factor of almost 2.7 due to (1) the availability of irrigation water and (2) the availability of new high yielding varieties of rice, accompanied by the increased use of fertiliser and pesticides, and by the adoption of new cultural practices such as straight-row planting and better weeding. Over the twenty-year period population growth in the area was pronounced while the cultivated area remained rather constant, the number of landless labourer households more than doubled, and the average farm size fell from 2.3 hectares to 2.0 hectares. The vast majority of the land had been farmed by tenants, with the predominant institutional form being one of share tenancy. In 1963 a new land reform code was passed with the purpose of breaking the power of the landlords and providing better incentives to peasant producers of food crops. It permitted tenants to initiate a shift from share tenure to leasehold, with rent under leasehold set at 25% of the average yield for the previous three years. This led to a shift from share tenure to leasehold. But there was a sharp increase in the number of plots farmed under subtenancy arrangements though subtenancy was illegal under the land reform code. The subtenancy arrangements are usually made without the formal consent of the landowner. And, all cases of subtenancy were on land farmed under a leasehold arrangement.

Ruttan and Hayami hypothesize from their model of

institutional innovation that there was an incentive for the development of subtenancy institution since the rent paid to the landlords under the leasehold arrangement was below the equilibrium rent, the level which would reflect both the higher yields of rice obtained with the new technology and the lower wage rates implied by the increase in population pressure against the land.

The major contention of the induced innovation model is that new institutions will evolve when the benefits of a new structure exceed the costs of change; if institutions do not change then the costs of change exceed the benefits. It is a thoroughly circular, or tautological set of propositions.

In this model, resource endowments are defined by institutional arrangements. To say that institutions change in response to new resource or factor endowments is to say that new institutions appear in response to new institutions: not a very interesting prospect (Bromley, 1989: 26). It is incomplete to regard technical change as the primary source of institutional change and regard institutions as constraints on new technology. The technical change itself is a function of the institutional structure.

In this regard Epstein's (1967) observation is quite revealing. Epstein contrasts two alternative systems for organising economic activities in a rural economy: the customary system of rewards and obligations (CSRO) and the contractual system. In the contractual system the parties

to exchange are free to weigh the benefits and costs of the exchange and transaction takes place only if they agree to it. The contracts cover relatively short periods and are therefore responsive to changing supplies and demands. In the CSRO the agreements are given by custom. She shows that the CSRO system is fundamentally inimical to innovation. Typically, for a new technology to be implemented effort is required not only from the landlord, but also from his tenants. To take Epstein's example, the adoption of the Japanese method of paddy cultivation in South India meant the workers would have to undertake a more laborious way of spacing plants properly. But the tenants or workers have neither any customary obligation to provide the additional effort nor any incentive to do so, since under the CSRO the landlord cannot pay them more. Similarly in this system, landlords do not have the incentive to adopt labour-saving innovations since they have to make their customary payments anyway. Epstein compares the villages Wangala and Dalena with customary relations weak in the latter. Dalena was comparatively more receptive to innovations as its inhabitants had the flexibility to work out new arrangements which would reward the increased effort of the agents of change.

Others argue that institutions may not always evolve efficiently. The degree of tautology is great, i.e., "what exists is efficient, therefore it exists" (Basu, Jones and Schlicht; 1987). Often dysfunctional institutions persist for a long period. Basu, Jones and Schlicht cite the

example of continuance of caste system and the extreme abstinence the widows in India have to observe. In such a system, potential members of a splinter coalition fear that it is doomed to failure and failure to challenge the system becomes a self-fulfilling prophecy. Akerlof (1984) has built models to show how economically unprofitable or socially unpleasant customs may persist as a result of a mutually sustaining network of social sanctions when each individual conforms out of fear of bad reputation from disobedience.

Recently Stiglitz (1974) and Jaynes (1982) have explicitly mentioned the conditions under which sharecropping will disappear. They hypothesize that with the development of a credit market and increasing capital intensity of agriculture or technological change share tenancy will tend to disappear. With the development of credit and capital markets, cost-sharing and risk-sharing motives for share-contracts will lose significance. With increasing capital intensity of agriculture either the landlord has to provide strong incentives (the rental system) or has to provide close supervision leading to the wage system (Stiglitz, 1974: 251).

2.6.2 Lenin's Theory of Transition from Corvee to Capitalism

Marxists study the evolution of society in its transition from feudalism to capitalism. According to Marx in response to technological change, institutional change

takes place and the change is rather abrupt and sudden. Class conflict and not inducement is the motor force to bring about institutional change. In the words of Marx, in a famous formulation:

The mode of production in material life determines the general character of the social, political and spiritual processes of life....At a certain stage of their development, the material forces of production in society come into conflict with the existing relations of production, or-what is but a legal expression for the same thing-with the property relations within which they had been at work before. From forms of development of the forces of production these relations turn into their fetters. Then comes the period of social revolution. With the change of the economic foundation the entire immense superstructure is more or less rapidly transformed.

(Quoted from Hayami and Kikuchi, 1981:24-25)

Thus according to Marx when the forces of production come in conflict with the existing production relations and the production relations act as a barrier to its further development, there comes about a rearrangement and a change in the mode of production and the entire superstructure is transformed.

Lenin has devoted one chapter entitled 'The landowners' transition from corvee to capitalist economy' in his book *Development of Capitalism in Russia* to delineating the process of development of capitalism in Russian agriculture with *Zemstov* statistics.

To start with, Lenin describes the characteristics of the corvee economy "the essence of the system was that the entire land of the given unit of agrarian economy, i.e., of the given manor, was divided into the lord's land and the peasant's land; the latter was distributed in allotments among the peasants, who (receiving other means of

production in addition) cultivated it with their own labour and their own implements, and obtained their livelihood from it (1956: 190)." The product of this labour constituted the necessary labour and the surplus labour consisted of their cultivation, with the same implements, of the landlord's land. Lenin interprets the peasants' allotment as wages in kind, or as a means of providing the landlords with hands.

Corvee economy is usually prevalent in conditions of 1) predominance of natural economy, 2) the direct producer being tied to land, 3) personal dependence of the peasant on the land or existence of extra-economic coercion and, 4) primitive and stagnant nature of technology.

The corvee economy was undermined by the abolition of serfdom in Russia but Lenin observes that the capitalist economy could not arise at once and corvee economy could not disappear immediately and the post-reform system of farming in Russia actually combined both the features of corvee and the capitalist system. He prefers to replace the word corvee by the term *otrabotki*. *Otrabotki* in the narrow sense refers to the system where the peasant tills the landlord's land in return for land leased to him. In the broader sense it includes job-hire where the payment is in money and also half-cropping where payment is in kind. Thus *otrabotki* is a direct survival of corvee economy.

Though Lenin includes sharecropping under the *otrabotki* system, it would be wrong to conclude that Lenin views share tenancy as a feature of feudalistic economy. In

the words of Lenin:

Sometimes the otrabotki system passes into the capitalist system and merges with it to such an extent that it becomes almost impossible to separate and distinguish one from the other.....Life creates forms such as combine systems of economy whose main features are opposite to each other, and it does so with remarkable gradualness. It becomes impossible to say where "otrabotki" end and where "capitalism" begins. (Lenin, 1956: 198)

For example, for the peasant's farm renting of land may be of contradictory significance: for some it is a profitable expansion of their farms; for others it is a deal made out of dire need. From the point of view of the landlord, sometimes he leases out the land to receive rent; in others it is a method of conducting one's own farm, a method of providing one's estate with manpower. Thus it is very difficult to associate tenancy in general and share tenancy in particular with any mode of production.

Lenin, in contrast to Marx, observes that money rent, rent in kind and *otrabotki* (in the narrow sense) could coexist in post-reform Russia. Patnaik (1983) also argues that it is not the form of rent that is important for distinguishing the mode of production, but it is important to know who pays the rent: the petty producer or the capitalist tenant. Lenin found that under half-cropping the rent was significantly higher than money rent. The poorest peasants lease in land out of dire need and rent is paid in kind whereas the rich peasants take advantage of every opportunity and pay rent in money. Lenin condemns rent in kind, which utterly ruins the peasant and turns him into a farm worker as it is only want that compels the tenant to

rent land on half-crop.¹⁹

In the capitalist system the landowner cultivates the land with hired workers who till the land with the owner's implements. Lenin argues that in the transitional period the combination of the dissimilar system of capitalist and the otrabotki systems leads in practice to a whole number of most profound and complicated conflicts and contradictions, and the pressure of these contradictions results in a number of farmers going bankrupt.

With every advance in the development of commodity economy and commercial agriculture the conditions of practicability of otrabotki was undermined as it was based on natural economy, on unchanging technique, on inseparable ties between the landlord and the peasant. The most important reason for the decline of the otrabotki system was the disintegration of the peasantry. Lenin stressed that in post reform Russia the contradictions inherent in any commodity economy were already manifest: competition, the struggle for economic independence, the grabbing of land (purchasable and rentable), the concentration of production in the hands of a minority, the forcing of the majority into the ranks of the proletariat, their exploitation by a minority through the medium of merchant's capital and the hiring of farm labourers. The sum-total of all the contradictions constituted the 'differentiation' or the 'depeasantisation' of the peasantry. Lenin refuted the Nardonik doctrine of the special economic form of peasant

¹⁹ See footnote in Lenin (1956: 202).

production and argued that due to the tradition of patriarchal life the transformation of capitalism would be slow and gradual but inevitable. In the words of Lenin:

The old peasantry is not only 'differentiating', it is being completely dissolved, it is ceasing to exist, it is being ousted by absolutely new types of rural inhabitants rural bourgeoisie and the rural proletariat- a class of commodity producers in agriculture and a class of agricultural wage-workers.

(Lenin, 1956: 174)

Lenin was aware that capitalism penetrates into agriculture particularly slowly and in varied forms. A class of allotment-holding wage-workers still continued to exist as it served the interest of the capitalist employer and it is too stereotypic to presume that capitalism requires the free, landless worker.

In the process of differentiation the middle peasants are the most vulnerable. Some lucky ones succeed in entering the top bourgeoisie class but most of them are pushed to the bottom group and are ultimately depeasantised. Thus Lenin observed that differentiation was proceeding apace in Russia: the peasants were leasing out their land, the number of horseless peasants was growing, peasants were fleeing to the towns and on the other the progressive capitalist farmers were buying land, improving the method of cultivation, combining dairy farming. Lenin emphasized the role of migration in hastening the process of differentiation:

It is mainly the peasants in *medium circumstances* who are leaving the areas of emigration and mainly the extreme groups who are remaining at home. Thus, migration is accelerating the differentiation of the peasantry in the areas of emigration and is carrying

the elements of differentiation to the new places.
(Lenin, 1956: 184)

Unfortunately, the role of migration in the development of capitalist relations has not been given due attention by the Marxist writers.²⁰

The differentiation of the peasantry creates a home market for capitalism. Firstly, by bringing about specialisation in production, it creates a market for exchange of agricultural commodities between different agricultural areas and undertakings. Secondly, with the increase in commodity circulation, the demand for manufactured personal consumption items increases. Thirdly, demand for improved agricultural implements increases and fourthly demand is created for labour-power.

Lenin in the course of his discussion also points out that the development of merchant's and usurer's capital²¹ in the countryside retards the differentiation of the peasantry. With the development of commerce and credit institutions and the integration of countryside with town, the well-to-do peasants will be forced out of petty trade and usury and capital will flow into production. The more

²⁰ However, Guy Standing's (1981) article on migration is a commendable work exploring the deeper underlying causes of migration and interpreting it as a symptom of feudal crisis.

²¹ Marx also in his *Capital* pointed out: "'merchant's and usurer's capital always historically precedes the formation of industrial capital and logically the **necessary** premise of its formation, but in themselves neither merchant's capital nor usurer's capital represents a **sufficient** premise for the rise of industrial capital; they do not always break up the old mode of production and replace it by the capitalist mode of production; the formation of the latter depends entirely upon the stage of historical development and the attendant circumstances'." (Quoted from Lenin, 1956; 185)

completely bondage, usury and otrabotki are forced out, the more profoundly will there proceed the disintegration of the peasantry and the development of capitalism.

2.7 SHARE TENANCY AND MODE OF PRODUCTION

Economists hold quite opposite views with regard to whether share tenancy can be considered as a feudalistic feature or can be compatible with capitalist agriculture. In the Smith-Marshall model of share tenancy the *metayer* was considered to be an impoverished poor peasant who lacked possession of any instruments of production and was dependent on the landlord for credit. Share tenancy was viewed as a feudalistic feature though an improvement over the serf economy. But Marx's notion of sharecropper was of a relatively well-to-do peasant who had some means of production and categorically Marx states that "A sharecropper is to lay claim to a portion of the product not in his capacity as labourer, but as possessor of part of the instruments of labour, as his own **capitalist**." In comparison to Smith and Marshall, Marx had a relatively optimistic view on share tenancy which can be considered as preparing ground for the development of capitalist relations. Thus the economic position or the characteristics of the share tenant should be studied carefully if one is inferring about the mode of production from the tenancy relationship.

Marx considered share tenancy as an intermediate and transitory form of rent from the original form of rent to

capitalist rent. Marxist writers (Bhaduri,1973; Prasad, 1989) those who consider share tenancy as a prominent feature of semi-feudalistic economy perhaps mistake Marx's view on pre-capitalist ground rent (kind) in its pure form as his opinion on share tenancy. According to Marx, kind rent is an institution characterising all pre-capitalist modes which have gone beyond the institution of labour rent while remaining overwhelmingly a natural economy. But sharecropping seems to succeed precapitalist ground rent which includes labour, kind and even money rent and thus resembles a transitional stage between feudalism and capitalism.

Lenin's view on share tenancy is realistic. He condemned share tenancy as a peasant enters into tenancy relationship only out of need as the rent was about double the amount that of fixed rent. But he described circumstances in which share tenancy can be compatible with capitalist relations (profitable expansion of the farm by leasing in) and a whole range of possible combination of otrabotki and capitalist relations is possible in the transitional stage. Interestingly, Kautsky⁽¹⁹⁸⁸⁾ argues that among the various capitalist modes of production the tenancy system yields the highest net product. This is because, it enables the entrepreneur to devote his capital exclusively to cultivation. So that capital intensity per unit of land increases. And also, tenancy helps in centralisation of land and large scale farming becomes possible.

Marxists consider share tenancy as an intermediate method of surplus appropriation and formal subsumption of labour under capital which will tend to disappear with capitalist accumulation and under real subsumption of labour under capital. But share tenancy is observed to persist even being compatible with capitalist relations, reappearing in advanced agriculture, disappearing (due to prohibitory state legislation) and reappearing in backward agriculture. Thus share tenancy cannot be considered as a figment of history or a transitory phase in the evolution of productive relationship. Since it existed in feudal society, in the ancient and medieval period, and it coexists with capitalist agriculture in the modern world. Therefore, share tenancy per se cannot be equated with feudalism or pre-capitalist relations. It is the most versatile and flexible system of production in the bio-ecological production environment of agriculture. In order to interpret the relevant production relations, one has to study the circumstances or the macro features of the economy which necessitate the share tenancy contract; the economic position or the class hierarchy of the tenant and landlord in the rural community and the terms and conditions of contracts and its enforceability should also be studied carefully.

The neoclassical models of Cheung and of Bardhan and Srinivasan seek to probe the functioning of share tenancy with text book assumptions of a perfectly competitive capitalist system with full employment whereas unemployment

is the stark reality in the countries where sharecropping is pervasive. In this regard Chandra's (1974) observation on share tenancy relationship in West Bengal in the late 1960s is quite penetrating by revealing the crux of the problem of share tenancy. Chandra considers share tenancy as semi-feudalistic and the cause for this persistence of semi-feudalism is the existence of massive unemployment due to slow pace of industrialisation. In his own words:

Labour surplus on a scale that is probably unparalleled in human history, is perpetuating the semi-feudal set-up..... Without vigorous measures to reduce considerably that surplus, we fail to see how one can get out of the vicious circle, or how capitalism can strike deep roots.

(Chandra, 1974: 1328)

By highlighting the problem of massive underemployment as the cause of share tenancy, Chandra(1974) and also Bagchi (1976) have provided a solution to the existence of debt-trap in Bhaduri's interlinked model of sharecropping and usury. If jobs are available, the tenant can flee from the landlord and the clutch of the landlord over the tenant does not lie in usury and perpetual indebtedness but more fundamentally in the precarious situation of the tenant due to lack of alternative job opportunities.

2.8 NEOCLASSICAL AND MARXIST APPROACH: A COMPARISON

The neoclassical and Marxist approach to share tenancy differ as their points of entry and methodology are entirely different. The differences may be identified as follows: (See Wolff and Resnick, 1987):

(1) The point of entry for neoclassicals is the individual whereas for Marxists it is class. Neoclassical theory

starts with (i) the concept of self-interested, utility-maximizing individuals who are (ii) endowed with initial productive resources and (iii) an inherent ability to use the available technology to transform nature by means of initial resources. But Marxian theory begins not with presumptions about human nature but rather with presumptions about social relationships which shape and change human behaviour. Individuals are understood to be born into social arrangements they did not create nor choose to live with.

(2) Neoclassical theory is reductionist or essentialist in the sense that they look for the ultimate causes of events which are essential for explaining its occurrence and the event can be reduced to its essential causes. But the Marxian theory does not believe in the cause-and-effect relationship of the neoclassical explanation and they presume that no event or aspect of a society is independent; nothing determines other things without itself being determined by them. Marxist do not look for the ultimate causes of events, because they believe that such final explanations do not exist. Thus Marxian theory is antiessentialist and antireductionist and its methodology is to analyse events in terms of mutual cause-and-effect relationship between class and non-class aspects of society and thus Marxian notion of causation is overdetermination.

(3) The Marxian methodology is dialectical, i.e. it focuses on tension and contradiction between opposites as an explanation of the forces which brings about social change.

In contrast, neoclassical economics emphasise social harmony. Individual economic units only interact with each other through the exchanges in the market, since each individual is assumed free to choose whether and when to enter into the market and no conflict in interest arises.

CHAPTER III

AGRICULTURE AND SHARE TENANCY IN ORISSA

(IN POST-INDEPENDENCE PERIOD)

3.1 INTRODUCTION

India became independent from British rule in 1947. At the time of independence, Orissa was a young province having been created in 1936 and consisting of six districts: Balasore, Cuttack, Puri, Ganjam, Koraput and Sambalpur. The *Garhjats*¹ or the 26 feudatory states voluntarily merged into Orissa on January 1, 1948.

3.2 AGRICULTURE IN ORISSA: SOME SELECTED ECONOMIC INDICATORS

Orissa is one of the most agriculturally backward states in India. Some selected economic indicators of the performance in agriculture and input use are given in Table 3.1 in respect of Orissa, Punjab² and All-India for the early 1980s. The value of output per hectare of net sown area was Rs.1437 in the case of Orissa, whereas it was Rs.3845 in Punjab and Rs.1468 for all-India. The low yield rate in Orissa can mainly be attributed to a low intensity

¹ *Garhjats* refer to the lands belonging to Western Orissa consisting of mountain fortresses which were under the rule of semi-independent *Rajas*. British laws were not applicable to some of these areas.

² Punjab is the most agriculturally advanced state in India. That is why we have compared agricultural indicators of Orissa with that of Punjab to highlight the discrepancy between what is achievable (under favourable conditions) and what is actually achieved in Orissa.

of input use. Despite being endowed with large water resources only about 19 per cent of net sown area was irrigated in Orissa³, whereas it was 78.1 per cent in the case of Punjab. Use of fertiliser per hectare of gross sown area was low i.e. 9.9 Kg. in Orissa whereas it was quite high i.e. 123.7 Kg/ha in Punjab. All the villages in Punjab were electrified, but in Orissa only 43.4 per cent of the villages were supplied with electricity.

Agriculture has, so to say, remained stagnant for the last three decades in Orissa. Productivity (kg/ha) and annual compound growth rate in productivity of major crops are shown for 1961-1981 in Table 3.2. In the case of staple cereal crop rice, the growth rate in productivity was only 0.6 per cent per annum during the period 1961-81 and was only 0.1 per cent for total food-grains.

Changes in cropping pattern for the period 1950-1985 are given in Table 3.3. Though the percentage of gross cropped area under rice shows a decline from 64 per cent in 1950-51 to 49 per cent in 1984-85, it still accounts for the largest proportion i.e. about half of the gross cropped area. However, percentage of area under pulses has significantly increased from less than one per cent in 1950-51 to 19 per cent in 1984-85. As a result area under food grains has increased from 68 per cent in 1950-51 to 76 per cent in 1984-85. Thus food-grains account for a major

³ The identified irrigation potential of Orissa is 59 lakh ha. Against this, the actual gross irrigated area in 1980-81 was only 16.8 lakh ha constituting about 28 per cent of potential. Thus 72 per cent of irrigation potential remains unutilised (R.B.I., 1984, Vol.II).

proportion of the gross cropped area. This is because agriculture in Orissa is not yet commercialised. Mainly the farmers produce for domestic consumption purposes and subsistence farming is pervasive. The percentage of gross cropped area under cash crops which includes oilseeds, fibre crops, plantation crops and vegetables etc. is only 24 per cent. However, the area under oilseeds has increased remarkably (specifically groundnut) from only 3 per cent of gross cropped area in 1950-51 to about 10 per cent in 1984-85.

Orissa suffers from natural calamities like flood, drought and cyclone almost every year with varying intensity. This has caused a great deal of instability in agricultural production of Orissa as shown in Appendix 3.1. Therefore, the peasants in Orissa are hesitant to cultivate cash crops where production risk is more.

3.3 AGRARIAN STRUCTURE IN ORISSA

Agricultural productivity is mainly determined by the intensity of input use. And the level of intensity of input use is critically dependent on the resource position of a farmer. The resource position of a farmer is mainly reflected in his landownership structure. The cumulative distribution of land ownership as per area and number of households in Orissa is given in Table 3.4.

In the year 1971-72, 87 per cent of the holdings belonged to the class of below 5 acres which included the class of landless, marginal and small farmers. But they

accounted for only 47 per cent of owned area. The percentage of large farmers having land more than 10 acres was about 4 per cent, and they possessed 27 per cent of owned land. Thus there was significant concentration in landownership. Poor peasants constituting 87 per cent of the households account for 47 per cent of land, whereas the medium and large farmers constituting 13 per cent of the households possessed 53 per cent of land. But the percentage of large farmer (above 10 acres) holdings which was 8 per cent of total holdings accounting for 47 per cent area in 1954-55 decreased to 4 per cent accounting for 27 per cent of areaⁱⁿ 1971-72. This (about 50 per cent) decrease in percentage of large holdings and area owned by them might be due to land reform measures (ceiling on land), sub-division of holdings and law of inheritance.

An analysis of the size-wise distribution of operational holdings shows that (Table 3.5) in year 1980-81, a significant proportion (74 per cent) of operational holdings were held by farmers operating less than 2 hectares and they accounted for only 38 per cent of operational area. The percentage of large farmers operating land area of more than 4 hectares was small (8 per cent), but they cultivated a significant proportion i.e. 32 per cent of operated area. Thus there was concentration of operational land area among medium and large farmers. But the percentage of large farmer holdings and the percentage of operated area cultivated by large farmers fell between 1970-71 and 1980-81.

Thus percentages of both owned and operated large holdings are decreasing in number and also area operated by those holdings show a declining tendency over time.

3.4 TENANCY IN ORISSA

In India data on extent of tenancy are available from two sources: NSS (National Sample Survey) estimates and Agricultural census data. Between the two estimates, the NSS estimates are more dependable as they are based on independent household surveys, while the census figures are based on land records.⁴

However, there is general agreement that available official data on incidence of tenancy are underestimates. There are several reasons for this. Tenancy is legally forbidden in most of the states excepting under some unusual circumstances. Tenants usually hesitate to reveal their tenurial relationships. As lease contracts are mainly oral, there is virtual absence of any record of lease details. Moreover, when leases are short, data very soon become outdated. Thus official data on tenancy are not really reliable. With this reservation in mind, we furnish the NSS estimates on extent of tenancy in Orissa in the following sections.

3.4.1 Inter-state Comparison of Tenancy

Orissa belongs to the category of 'high tenancy'

⁴ For a comparison of NSS data with Agricultural census figures on inter-state variations in extent of tenancy, see Laxminarayan and Tyagi (1982: 61-67).

states in India. According to official reported figures, the percentage of area leased-in to area owned in the case of Orissa was 8.0 per cent in 1980-81 whereas it was 7.5 per cent at All-India level (see Table 3.6). The high tenancy states are a curious conglomeration of two groups: high irrigation-intensive, high productive and technologically developed north-western states; and, densely populated, high rainfall, rice growing and technologically less developed north-eastern states (Parthasarathy, 1991: A-32).

Bardhan (1984) has estimated a regression equation to identify certain economic factors which accounts for inter-state variations in extent of tenancy. His finding is that percentage of cultivated area under tenancy will be higher

- (i) where land improvement factor is larger i.e. in fertile, irrigated and high rainfall areas
- (ii) where production uncertainty is lower
- (iii) where labour demand is higher due to larger labour intensity of crop harvested
- (iv) where extent of unemployment in wage labour market facing the landless households is larger

A careful analysis of NSS estimates reveals that the reported percentage of area leased-in to area owned is significantly higher than the percentage of area leased-out to area owned. The discrepancy between total leased-in area by rural households from rural households and total leased-out area by rural households to rural households is considered as non-reported tenancy (external tenancy).

Concealed tenancy is measured as the percentage of non-reported tenancy to total tenancy (leased-in area).⁵ It is estimated that there is a high proportion (35.8 per cent) of concealed tenancy in Orissa which may be attributed to area leased out by external agencies like non-resident landlords and institutes. Thus data on leased-in area is more reliable than data on leased-out area. Because, the lessors usually under-report the leased-out area in fear of protective tenancy legislation. Therefore, we have used mainly data on leased-in area in the following sections.

3.4.2 Basic Features of Tenancy in Orissa

The basic features of tenancy in Orissa for the year 1981-82 are given in Table 3.7. There were 6,78,400 tenant households constituting 16.7 per cent of operational households leasing in 3,28,500 hectares of land which was 8.04 per cent of owned area and 9.92 per cent of operated area. About 45 per cent of leased-in area was under share tenancy. Thus share tenancy is more prevalent in Orissa. In India, sharecropping is prominent in rice and wheat growing areas like East and North West India. In the South where plantation crops are important, fixed-produce rents predominate (Singh, 1988b).

The distribution of leased-in area according to size classes of operational holdings (Table 3.8) reveals that the percentage of leased-in area to operated area decreases

⁵ See Table 1 and Table 3 in Sawant (1991) for the procedure to estimate concealed tenancy.

with increase in size of operational holding being 22 per cent in the size class of less than 1 ha and about 9 per cent in the class of 10.13 ha and above. Moreover, 56 per cent of leased in area was in the size classes of less than 2.02 hectares and only 4 per cent of leased-in area was in size classes above 10.13 hectares. Thus leasing-in is more practised by marginal and small holdings than by large farmers. Subsistence tenancy is more prevalent than capitalist tenancy.

An analysis of distribution of leased-out area according to size classes of ownership holding (Table 3.9) shows that in 1971-72, the greatest percentage (65%) of lessor households belonged to category of 'upto 1 ha' and they also accounted for a major proportion (36%) of leased out area. Thus the lessor households were mainly marginal farmers. On the other hand, a very small percentage (5.5%) of lessors belonged to large farmer category owning more than 4.04 ha of land which accounted for only 14.7 per cent of leased-out area. Thus, in Orissa mainly marginal and small farmers lease out land.

With regard to the incidence of different types of tenancy, Table 3.10 shows that share tenancy was more pervasive than fixed produce and fixed money tenancy. In 1971-72 about 42 per cent of leased-in area was under sharecropping but only 14 per cent and 8 per cent of leased-in area was under fixed produce and fixed money respectively. But the percentage of leased-in area under share of produce was more than 39 per cent in the case of

size classes below 4.04 hectares whereas it was only 19 per cent and 7.5 per cent for classes 4.05 to 10.12 ha. and above 10.13 ha. respectively. Thus the terms of lease were clearly more favourable to large farmers, inasmuch as, rent is usually higher in the case of share tenancy than with fixed crop or fixed cash tenancy.

3.4.3 Changes in Tenancy Contracts

If we consider the incidence of tenancy in a dynamic context we find the following. The proportion of operated area leased-in has declined from 12.6 per cent in 1953-54 to 9.9 per cent in 1981-82 (see Table 3.11). The share of size class of below 5 acres in total tenanted area has increased from 39.8 per cent in 1953-54 to 56.7 per cent in 1971-72. The percentage of tenanted area accounted for by the size class above 20 acres has decreased from 13.3 per cent in 1953-54 to 6.8 per cent in 1971-72. This suggests that leasing-in by marginal farmers and small farmers is increasing over time. Whereas leasing-in by large farmers shows a declining tendency.

The percentage of leased-in area from external agency (the percentage of leased-in area less leased-out area to area operated) has decreased from 7.1 per cent in 1971-72 to 2.5 per cent in 1981-82. The percentage of leased-in area under sharecropping has remained nearly the same i.e. 42 per cent in 1971-72 and 1981-82 ⁶. The percentage of

⁶ In 1981-82, about 37 per cent of leased-in area comes under not recorded (see Table 6, p.A35 in Parthasarathy, 1991).

leased out area under sharecropping has decreased from 64.8 per cent in 1971-72 to 41 per cent in 1981-82. Thus sharecropping continues to be the main form of tenancy in Orissa.

To sum up our findings with regard to tenancy in Orissa, both lessors and lessees are predominantly from the marginal and small farmer class. Share tenancy is more prevalent than fixed crop and fixed cash tenancy. Mainly small farmers lease in on sharecropping basis. Leasing-in by marginal and small farmers is on the increase.

3.5 TENANCY REFORMS IN ORISSA

The term tenancy reforms broadly cover those measures which are intended to protect the interests of tenants and sharecroppers in respect of getting their due share or benefits of produce from the cultivation of the leased-in land and gradually to establish peasant-proprietorship by conferring ownership right in land on those who actually cultivate it (Mitra, 1981). At the time of independence in Orissa, most of the leases and sub-leases were oral and terminable at will (Mitra, 1981:33). And the rent was on an average 50 per cent of the gross produce. To improve the conditions of the *raiyats*⁷ and *under-raiyats*⁸, radical

⁷ A 'Raiyat' is a tenant and is primarily a person who has acquired a right to hold land for the purpose of cultivating it by himself, or by members of his family, or by hired servants, or with the aid of partners, and includes also the successors-in-interest of persons who have acquired such a right. A person shall not be deemed to be a *raiyat*, unless he holds land either immediately under a proprietor or immediately under a tenure-holder (Orissa Tenancy Act, 1913, P.4).

tenancy reforms were introduced in Orissa in the post independence period. The Orissa Estates Abolition Act, 1952 aimed at abolishing all intermediary interests and vested those rights in the state free from all encumbrances. However, the agricultural and horticultural lands in *khas*⁹ possession of ex-intermediaries remained with them without any payment. But the important acts aiming at tenancy reforms (Mitra, 1981) were:¹⁰

- (1) Orissa Tenants' Protection Act, 1948,
- (2) Orissa Tenants' Relief Act, 1955, and
- (3) Orissa Land Reforms Acts, 1960, and its subsequent amendments.

The objects of the Orissa Tenants' Protection Act of 1948 were stated thus:

⁸ '*Under-raiyats*' were tenants holding whether immediately, or mediately under raiyats (Orissa Tenancy Act, 1913, p.5). The *raiyats* who were unable to cultivate their holdings due to caste rules or some other reasons were leasing out their land in whole or in part, to their poorer neighbours either on produce or cash rent and these people were known as '*under-raiyats*'. A *Bhag* tenant (sharecropper) was considered as an '*under-raiyat*'.

⁹ *Khas* possession refers to land directly and personally managed by the intermediaries.

¹⁰ For this sub-section we have mainly relied on Rath, 1977, Chapter II and Mitra, 1981.

It is well known that the status of the Bhag-chasis¹¹ is very insecure. They have not been recognised by the land laws in force in some parts of the Province. They can be evicted at the sweet will of the landholders, who often realise more than half the gross produce as rent besides exacting forced labour. Government, therefore, considers it necessary to give protection to these Bhag-chasis against eviction and in respect of the produce rent payable by them.

(Quoted from Rath, 1977: 71)

Thus the protection and relief which the above mentioned Acts provided to the tenants and sub-tenants may be broadly classified into the following categories:

- (1) Regulation of Rent,
- (2) Security of Tenure,
- (3) Conferment of Ownership Right of the Land on Tenants.

These points are elaborated below.

3.5.1 Regulation of Rent

The Orissa Tenants' Protection Act, 1948 prescribed that (a) tenants¹² enjoying occupancy rights were not bound to pay more than one-third of the gross produce as rent to the superior raiyat, for holding land under produce-rent system; (b) tenants without security of tenure were not bound to pay more than two fifths of the gross produce as rent to the landowners. The collector or any authorised officer in a district was empowered by this Act to decide

¹¹ In Orissa the local name for a sharecropper is *Bhag-chasi*.

¹² The Tenants' Protection Act of 1948 defined a tenant as a person who under the system, variously called 'Bhag', 'Sanja', 'Kata', cultivates the land of another person on condition of delivering to that person a share of the produce, or the estimated value, of a portion of the produce of land cultivated by him.

disputes between a 'bhag-chasi' (sharecropper) and the landlord. This legislation caused a lot of friction between landlords and tenants in the state. In districts like Cuttack and Puri a great deal of agrarian commotion was caused by the agitating *kisans* organised by Socialist and Communist parties.

The Tenants' Protection Act of 1948, due to expire in 1950, was extended from time to time until it was replaced in 1955 by a more comprehensive legislation i.e. The Orissa Tenants' Relief Act, 1955.¹³ Under this Act a temporary tenant was not bound to pay more than one-fourth in kind or cash of the gross produce of the land. In the Land Reforms Act, 1960, and its subsequent amendments, the amount of rent was retained at one-fourth of the gross produce of the land, or the value thereof or the value of one-fourth of the estimated produce of land.

But the regulation was not at all effective (Mitra, 1981: 35) and the traditional system of paying 50 per cent of the gross produce just after the harvest as rent still prevailed. The Orissa Administration Enquiry Committee reported in 1958:

It is said that the beneficial effect of the Orissa Tenants' Protection Act was to bring about some consciousness amongst the cultivators in regard to their rights. It is only where there was strained relationship between the landlord and the tenants that they came up to the court for redress, otherwise there was quite a large number of cases which were compromised, and a vast majority of the cultivating tenants remained as they were before, in their

¹³ The benefits of the Tenants' Protection Act of 1948 were extended to the territories of the merged feudatory States by the Orissa Merged States (Laws) Act of 1950 (Rath, 1977: 72).

relationship with the superior ryots.
(Quoted from Rath, 1977: 74)

3.5.2 Security of Tenure

In the pre-independence period under British rule certain tenancy reforms had been undertaken. But these measures: The Rent Act of Bengal, 1859; Bengal Tenancy Act, 1885; and Orissa Tenancy Act, 1913 protected only *raiyats* with occupancy rights from eviction. The problem of *under-raiyats* and sub-tenants was very acute. Under the Orissa Tenants' protection Act, 1948, land-holders owning 33, or more, acres of land were debarred from evicting the cultivator-tenants. The Orissa Tenants' Relief Act, 1955, intended to strengthen the position of the tenant further. It provided that no tenant holding land for cultivation on 1st July, 1954, or at any time thereafter, could be lawfully evicted from his holding by the landlord. However, the law recognised with defined limitation the right of the landlord to evict tenant from any land selected by him for personal cultivation. But a landlord could not resume for personal cultivation more land than seven acres in aggregate, inclusive of such land that was under his personal cultivation before or on July 1, 1954.

The Orissa Land Reforms Act 1960 was probably the first piece of legislation which assumed that a *raiyat* had obligations to the state other than regular payment of rent for holding land for agricultural purposes. The Act made the *raiyat* liable to eviction for using land in a manner which rendered it unfit for agriculture. It provided that the tenants could not ordinarily be evicted from the land

except on grounds of improper or inefficient farming and non-payment of rent. It was also declared that a *raiyat* enjoyed permanent, heritable and transferable right in land held by him. But he had no right to lease out land held by him as a *raiyat*, unless he was a person under 'disability'¹⁴, or was a 'privileged *raiyat*'¹⁵.

The Orissa Land Reforms (Amendment) Act, 1965 and its subsequent amendments in 1973 and 1974 conferred cent per cent right to the *raiyats* on the land under their possession. The Revenue Officer was empowered to declare the whole land to be non-resumable on receipt of an application made by the tenant within two years from the commencement of the Orissa Land Reforms (Amendment) Act, 1973, that is, from 2nd October, 1973.

In spite of these legal provisions, in most parts of the state, tenants were exposed to eviction as the problem of establishing tenancy rights over land was difficult for tenants.¹⁶

¹⁴ A person under 'disability' meant: (i) a widow or unmarried woman, or a woman divorced or separated from her husband by a decree or order of a court; (ii) a minor or a person of unsound mind; and (iii) a person incapable, because of some other physical or mental disability, of cultivating personally the land he held as a *raiyat*.

¹⁵ In the category of 'privileged *raiyat*' the following were included: (i) trusts holding land for public purpose; (ii) charitable and educational institutions engaged in work of public benefit; and (iii) religious or other institutions by which the public were benefited.

¹⁶ A Report on An Enquiry into the Working of Orissa Tenants' Protection Act, 1948, and Orissa Tenants' Relief Act, 1955 in Five Districts of Orissa, 1970 by B.Misra revealed that in the coastal districts more than 90 per cent of the agreements were oral and more than 80 per cent of the tenants did not receive any receipt for payment of rent. This made it impossible

3.5.3 Conferment of Ownership Right on Land to the Tenants

The Orissa Land Reforms Act, 1960, as amended in 1965, provided that in the matter of disposal of ceiling-surplus land priority was to be given to the evicted tenant and the contiguous raiyat having land not exceeding one basic holding. The objective of this legislation was to confer the ownership right of the cultivable land on the tenant or the actual cultivator of the land.

An amendment to the Act in 1973 provided that seventy per cent of ceiling-surplus land was to be distributed among the scheduled castes and scheduled tribes in proportion to their respective population in the village. As more than 65 per cent of the tenants belonged to the scheduled castes and tribes, the Act was also intended to benefit sub-tenants and tenants at-will. But the provisions of ceiling on land-holding will not affect the bulk of the land owners. The ceiling limit even at its present lower level of 10 standard acres, would not affect a large number of landowners. In this situation a sufficient amount of ceiling surplus land will not be available for distribution among tenants and landless agricultural labourers.

The highly defective land records, the prevalence of oral leases, an absence of rent receipts and the ignorance of the legal provisions of tenancy legislation and the

on the part of the tenants to establish their tenancy rights (Mitra, 1981: 38).

inability of the tenants to go to the law courts for justice due to poor resource base and acute poverty caused by the interaction of lease, labour and credit markets and the indebtedness of the peasants made enforcement of tenancy legislation practically impossible. More importantly, lack of political will, absence of bureaucratic commitment and deficiency in organisational ability of intended beneficiaries led to non-implementation of tenancy reforms in Orissa.

Moreover, there are certain socio-cultural reasons because of which tenants do not come forward to establish their rights on the tenanted land.

To quote a conversation between a *Harijan*¹⁷ and a group of politicians from P.Mohanti's book '*Changing Village, Changing Life*' (1990)¹⁸.

The politicians said to the tenant, "You have lived on this land for so many years, the land is yours. Register a case against the landlord."

The Harijan replied, "How can I start a case against him? I know this land is his. How can it suddenly become mine? When I have problems I go to him for help. We live in the same village and we see each other every day. You are here now, but after one hour you will be gone and it will be

¹⁷ The word 'Harijan' refers to the 'son of God', the name given to untouchables in India by Gandhi. In the constitution of India Harijans are named as scheduled castes.

¹⁸ For a lively depiction of village life in Orissa, see Mohanti (1973) and Mohanti (1990).

difficult for me to see you. How can we get their land in our name? It is not good."

Thus as long as the state machinery is not capable of providing a dependable and perfect substitute of the informally contracted recipient systems which are endogenously created out of necessity, it cannot successfully supplant it.

TABLE 3.1

**Selected Economic Indicators
Orissa, Punjab, All-India**

Indicators	ORISSA	PUNJAB	ALL-INDIA
Population Density per sq km 1981	189	331	221
No. of Agricultural Workers per 100 ha of Net Sown Area 1981	106	68	105
Per capita food-grains output in Kg. 1980-81	196	711	181
Cropping Intensity 1980-81	138	159	123
Value of Output in Rs. (Average of Five Years Ending at 1979-80 at 1978-79 Prices)			
Per ha of Net Sown Area	1,437	3,845	1,468
Per ha of Gross Sown Area	1,059	2,422	1,198
Per Agricultural Worker	1,361	5,610	2,432
Levels of Intensification of Input Use			
Percentage of Net Sown Area Irrigated	18.8	78.1	26.6
Intensity of Land Use with Irrigation, 1978-79 (Per cent)	138.2	168.8	18.0
NPK in Kg/ha of Gross Sown Area, 81-82	9.9	123.7	34.6
% of Villages Electrified	43.4	100.0	55.6
No. of Private Energized wells per 1000 ha of Net Sown Area, 1981-82	31.9	73.6	32.6

Source: Collected from Report of the Committee on Agricultural Productivity in Eastern India, Vol.I, RBI, Bombay (1984)

TABLE 3.2

Productivity and Annual Percentage Compound Growth Rate in Productivity
of Major Crops in Orissa

Crop	Productivity (Kg/ha)			Annual Compound Growth Rate		
	Triennium ending			1961-71	1971-81	1961-81
	1961	1971	1981			
Rice	805	917	917	1.3	-	0.6
Wheat	571	1,243	1,750	8.1	3.5	5.8
Other cereals	404	867	640	5.1	-0.4	2.3
Pulses	488	522	454	0.7	-1.4	-0.4
Total Food-grains	758	839	779	1.0	-0.7	0.1
Groundnut	757	1,198	1,111	4.7	-0.8	1.9
Rapeseed & mustard	405	426	392	0.5	-0.8	-0.2
Total Oil Seeds	332	583	561	6.0	-0.6	2.7
Sugarcane (Gur)	3,054	5,452	6,155	6.0	1.2	3.6
Jute	1,030	1,281	1,388	2.2	0.8	1.5
Mesta	905	1,033	925	1.3	-1.1	0.1
Potato	3,000	11,183	6,815	14.1	-4.8	4.2

Source: Compiled from Annexure 9.2 and Annexure 9.3 in Report on Agricultural Productivity in Eastern India, Vol. II, RBI, Bombay (1984: 160-61)

TABLE 3.3

Changes in Cropping Pattern in Orissa
(Percentage of Area under each Crop to Gross Cropped Area)

Crop	1950-51	1960-61	1970-71	1980-81	1984-85
Rice	64.37	61.87	66.13	47.92	49.05
Wheat	0.02	0.11	0.19	0.77	0.62
Maize	0.38	0.36	1.06	2.07	1.88
Ragi	2.02	1.09	2.31	3.84	3.27
Jowar	0.12	0.11	0.11	0.25	0.42
Bajra	0.02	0.08	0.08	0.06	0.10
Coarse Cereals	2.66	2.42	6.08	10.56	7.27
TOTAL CEREALS	67.05	64.40	72.40	59.25	56.93
Gram	0.42	0.32	0.31	0.57	0.46
Arhar	0.18	0.23	0.75	0.94	1.53
Other Pulses	-	7.50	11.44	18.22	16.90
TOTAL PULSES	0.60	8.05	12.50	19.73	18.88
TOTAL FOODGRAINS	67.65	72.45	84.90	78.98	75.81
Groundnut	0.42	0.39	1.04	1.97	3.40
Sesamum	1.70	1.50	1.35	1.78	3.00
Rapeseed & Mustard	0.43	0.75	0.81	1.85	1.29
Other Oilseeds	0.42	0.93	1.68	2.82	2.78
TOTAL OILSEEDS	2.97	3.57	4.88	8.42	10.47
Cotton	0.04	0.13	0.04	0.05	0.02
Jute	0.75	0.65	0.65	0.50	0.48
Mesta	-	0.13	0.41	0.48	0.46
Other Fibres	0.13	-	0.05	0.11	0.13
TOTAL FIBRES	0.92	0.91	1.15	1.14	1.09
Sugarcane	0.42	0.41	0.44	0.56	0.52
Potato	0.05	0.16	0.31	0.09	0.13
Tobacco	0.02	0.07	0.21	0.24	0.20
Other Crops	27.97	22.43	8.11	10.57	11.78
TOTAL	100.00	100.00	100.00	100.00	100.00

Source: Compiled from Agricultural Statistics of Orissa (1987, P.84).

TABLE 3.4

Percentage of Households Owning Land Below Specified
Size of Ownership Holding and Cumulative Percentage
of Area Owned by Them

Size of Household Ownership Holding (acres)	1954-55		1961-62		1971-72	
	Households	Area Owned	Households	Area Owned	Households	Area Owned
0.0	12.3	-	7.8	-	10.6	-
0.5	-	-	37.6	0.7	36.1	1.2
1.0	43.7	2.4	44.5	2.2	44.8	3.8
2.5	60.5	9.8	62.7	11.4	68.9	20.5
5.0	78.5	28.0	79.9	30.6	87.0	47.4
7.5	87.2	42.7	88.8	46.7	93.3	63.3
10.0	91.6	53.3	92.8	57.4	96.1	73.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Compiled from Table 5.A.1 in Sanyal (1988, P.148)
based on 8th round, 17th round and 26th round N.S.S. data.

TABLE 3.5

**Size-wise Distribution of Operational Holdings in Orissa
1970-71 and 1980-81**

Class	1970-71	1970-71	1980-81	1980-81
	No. of Holdings (per cent)	Operational Area (per cent)	No. of Holdings (per cent)	Operational Area (per cent)
Below 1 ha	44.6	12.0	46.8	14.9
Between 1 & 2 ha	30.9	26.6	26.8	23.0
Between 2 & 4 ha	13.7	21.1	18.4	29.8
Between 4 & 10 ha	9.4	27.8	7.2	24.9
10 ha and above	1.4	12.5	0.8	7.4
Total	100.0	100.0	100.0	100.0

Source: Report of the Committee on Agricultural Productivity in Eastern India (1984, p.134), RBI, based on Agricultural Census data 1980-81.

TABLE 3.6

Statewise Tenancy Statistics (Rural, 1981-82)

States by Descending Order of Percentage Leased-in Area	% of Households Leasing-in	% of Area Leased-in to Area Owned	% of Area Leased-in to Operated Area	% of Area Leased out to Area Owned	% of Area under Concealed Tenancy	% of Irrigated Area to Total Operated Area
High Tenancy States						
1 Haryana	22.3	19.7	18.2	10.6	35.3	66.2
2 Punjab	23.0	19.0	16.1	11.1	40.9	78.0
3 Tamil Nadu	29.2	13.4	10.9	5.9	34.7	47.0
4 West Bengal	27.1	12.3	12.3	2.5	75.8	22.3
5 Uttar Pradesh	21.3	11.1	10.2	4.8	57.4	59.6
6 Bihar	17.2	10.4	10.3	5.0	52.5	24.8
7 Orissa	16.7	8.0	9.9	5.5	35.8	11.4
Medium Tenancy States						
8 Assam	14.1	6.9	6.2	1.8	77.0	0.5
9 Karnataka	17.0	6.6	6.0	5.0	8.9	9.6
10 Andhra Pradesh	19.7	6.5	6.2	6.3	-10.8	15.6
11 Maharashtra	16.7	5.6	5.2	2.7	44.7	10.1
Low Tenancy States						
12 Rajasthan	9.7	4.3	4.3	3.1	24.5	11.6
13 Madhya Pradesh	12.1	3.8	3.6	3.3	13.1	10.8
14 Himachal Pradesh	17.0	2.9	3.2	6.9	-178.3	9.9
15 Jammu and Kashmir	5.4	2.8	2.4	1.0	53.2	24.1
16 Kerala	12.7	2.3	2.0	0.4	74.8	12.0
17 Gujarat	9.0	2.0	2.0	1.7	17.9	25.5
All India (including States not specified)	18.5	7.5	7.2	4.3	37.2	24.8

Sources: Compiled from Table 5 (p.A33) in Parthasarthy (1991) and Table 2 (p.19), Table 3 (p.20) in Sawant(1991) based on NSS 37th round data.

TABLE 3.7

Basic Features of Tenancy in Orissa (1981-82)

Absolute Number of Tenants	6,78,400
Percentage Households Leasing-in	16.7
Absolute Tenanted Area (hectares)	3,28,500
Percentage Area Leased-in to Area Owned	8.0
Percentage Area Leased-in to Operated Area	9.9
Percentage of Leased-in area under Share Tenancy	44.5
Percentage of Leased-out Area under share Tenancy	40.6

Source: Compiled from Table 5 (p.A33), Table 7 (p.A35), Table 8 (p.A35) in Parthasarathy (1991) and Table 2 (p.19) in Sawant (1991) based on NSS 37th round data.

TABLE 3.8

Distribution of Leased-in Area according to Size Classes of Operational Holdings
Orissa, 1971-72

(Area in '00 Hectares)

Size Class of Operational Holding	Operated Area	% of Total Operated Area	Leased-in Area	% of Total Leased-in Area	% of Leased-in Area to Operated Area
0.002 - 1.00 ha	7,947	18.6	1,745	30.4	21.86
1.01 - 2.02 ha	11,557	27.1	1,495	26.0	12.94
2.03 - 4.04 ha	11,561	27.1	1,526	26.6	13.2
4.05 - 10.12 ha	9,319	21.8	775	13.5	8.32
10.13 ha and Above	2,288	5.4	201	3.5	8.78
All Size Classes	42,672	100.0	5,742	100.0	13.46

Source: Compiled from Table 17, Table 17A, Table 17B in Laxminarayan and Tyagi (1982, P.74-79) based on N.S.S 26th Round data.

TABLE 3.9

Distribution of Leased-out Area
According to Size Classes of Ownership Holding
Orissa, 1971-72

Size Class of Ownership Holding	No. of Households Leasing out Land	% of Total House- holds	(Area in '00 Hectares)		
			(Rural only)	(No. of Households in '00)	
			Area Leased out	% of Total Leased-out Area	Area Leased out per Household
Upto 1 ha	3099	64.8	977	35.5	0.32
1.01 - 2.02 ha	754	15.8	495	18.0	0.66
2.03 - 4.04 ha	660	13.8	877	31.9	1.33
4.05 - 10.12 ha	215	4.5	302	11.0	1.40
10.14 ha & abov	54	1.1	101	3.7	1.87
All Size Classe	4782	100.0	2752	100.0	0.58

Source: Compiled from Table 27 in Laxminarayan and Tyagi
(1982, p.116-21) based on NSS 26th round data.

TABLE 3.10

Percentage Share of Different Types of Tenancies in Total Leased-in Area
According to Different Size Classes of Operational Holdings
Orissa (1971-72)

Size Class of Operational Holding	Share of Produce	Fixed Produce	Fixed Money	Others	Total
0.002-1.00 ha	38.7	14.9	8.5	37.9	100.0
1.01-2.02 ha	43.8	7.1	9.1	40.1	100.0
2.03-4.04 ha	59.4	10.5	5.1	25.1	100.0
4.05-10.12 ha	19.0	30.1	10.7	40.3	100.0
10.13 ha and Above	7.5	-	2.5	90.1	100.0
All Size Classes	41.8	13.8	7.8	37.2	100.0

Source: Compiled from Table 21 in Laxminarayan and Tyagi (1982, p.88-93)
based on NSS 26th Round data.

TABLE 3.11

Changes in Incidence of Tenancy in Orissa

Measures of Extent of Tenancy	1953-54	1960-61	1971-72	1981-82
% of Operated Area Leased-in	12.6	10.8	13.5	9.9
% of Tenanted Area Accounted for by Size Groups:				
Below 5 acres	39.8	45.7	56.7	-
Above 20 acres	13.3	6.0	6.8	
% of Leased-in Area less Leased-out Area to Area Operated	-	-	7.1	2.5
% of Leased-in Area under Sharecropping			41.8	42.0
% of Leased-out Area under Sharecropping	-	-	64.8	40.6

Source: Compiled from Table 2 (P.10), Table A2 (p.83) in I.Singh (1988b) and Table 1 (p.558), Table 4 (p.564) in Swamy (1988); Table 7 (p.A-35) in Parthasarathy (1991).

CHAPTER IV

VILLAGE PROFILE AND

CHARACTERISTICS OF HOUSEHOLDS IN STUDY VILLAGES

IN RELATION TO OWNERSHIP, TENANCY AND 'DEGREE OF TENANCY'

4.1 INTRODUCTION

It is an acknowledged fact that the features of tenancy contracts differ from village to village as the village is the smallest social unit within which resident households interact and enter into several transactions in different markets like land, labour, credit and output in a personalised atmosphere. Thus, the terms and conditions of these contracts are to a large extent affected by the village specific socio-economic characteristics. Therefore, at the outset an attempt is made to give an overall profile of the study villages in terms of their geographical location, ecological conditions, available infrastructural facilities and selected socio-economic indicators, to give an idea of the extent of economic development and a portrait of the villages. Then, characteristics of the households in each study villages are carefully studied and presented villagewise in relation to ownership, tenancy and 'degree of tenancy'¹ with differences highlighted.

¹ 'Degree of Tenancy' refers to the extent of tenantness. When one moves from a part tenant (who operates both his owned and leased-in land) to a pure tenant whose entire operational holding is tenanted land, 'degree of tenancy' increases.

4.2 VILLAGE PROFILE

4.2.1 Geographical Location

This study is based on primary data collected from three villages in Orissa in Eastern India (see Map 4.1). The villages were selected on the basis of rough indicators of their agricultural advancement and the differing historical development of land labour relations in the regions in response to different land revenue administration introduced during the British rule under different circumstances.

Charapara is the agriculturally advanced village receiving perennial canal irrigation from the No.11 Pattamundai Canal. It is located in Cuttack district (see Map 4.2) in the Eastern Coastal plain of Orissa. It comes under Kendrapara Tahasil or Police Station (P.S.). Cuttack is the most populous and advanced district in Orissa. The moderately advanced village Harinababi is also canal irrigated and it is adjacent to the village Charapara. In both the villages, irrigation water is supplied from July to September and in January and April. Charapara and Harinababi taken together cover about 157 hectares of land. Historically these two villages were under *zamindari*² settlement located in the mainland of Orissa. It is to be noted that both the villages are recorded as a single village Charapara in all official documents i.e. in census,

² In the *zamindari* settlement, the British conferred the proprietary right in land on the *zamindars*. The *zamindars* or the landlords were the intermediary between the Government and the tenants having responsibility for the collection of land revenue.

land revenue records and others. But in our presentation, the two villages have been treated separately mainly for the purpose of emphasizing the inter-village differences in the mode of rent payment, wages and other behavioural relations despite the fact that they are adjacent to each other and there is no significant difference between the two with respect to agricultural progressiveness.

The backward village is Sandhagaon. There is complete absence of irrigation facility in this village. It is situated in the district of Dhenkanal in the mid-central table land of Orissa (see Map 4.2). Sandhagaon comes under Talcher Sadar Tahasil covering about 25 square kilometres of area. Dhenkanal is more backward in comparison to Cuttack district.

Important demographic statistics with respect to the two districts and Orissa state as a whole are given in Table 4.1. As per the 1981 census data the literacy rate is significantly higher in Cuttack district (45.4%) than that of Dhenkanal district (36.9%). The proportion of urban population to total population is also higher in Cuttack district (10.3%) than that of Dhenkanal (7.8%). The density of population per sq km is 415 in the case of Cuttack district, whereas it is only 146 in Dhenkanal.

Historically, the village Sandhagaon was under the rule of semi-independent *Rajas* located in the *Tributary Mahals*³ or feudatory states of Orissa and constituted some

³ The *Tributary Mahals* were under the rule of semi-independent kings and were permanently settled. Some of them (Talcher) were excluded from the working of the British civil and

hilly tracts and inaccessible areas and, was sparsely populated. Exploitation of tenants in the *Tributary Mahals* or *Garhjats* was more excessive than in *Zamindari* areas. Mainly shifting cultivation was practised in *Garhjats*. The district of Dhenkanal came into being on 1st January 1948 when new districts were created after the merger of the princely states with the province of Orissa. The inhabitants of the ex-feudatory states in general and residents of Dhenkanal district in particular think that they have been exploited by the coastal people, commonly called 'Katakis' (residents of Cuttack district) (Pathy, 1988:41). The coastal region is agriculturally advanced due to large scale irrigation works and fertile lands.

4.2.2 Soil, Climate and Rainfall

In the irrigated villages of Charapara and Harinababi the soil is fertile loam, clay loam and coastal alluvium. But in the non-irrigated village Sandhagaon the soil is lateritic and red loam.⁴

The climate in Orissa is tropical climate with high humidity. Winter is short and mild. The average temperature ranges between minimum of 12 degree Centigrade and maximum of 39 degree Centigrade. The climate in the coastal plain

criminal law. The tributary chiefs were expected to pay annual tributes in specified instalments. The tributes were fixed in perpetuity.

⁴ All data in this sub-section have been collected from Agricultural Statistics of Orissa, 1987, Directorate of Agriculture and Food Production, Government of Orissa and Agricultural Productivity in Eastern India, Vol. II, R.B.I., 1984.

where Charapara and Harinababi are situated is hot and humid whereas in the central table land of Sandhagaon it is hot, dry and sub-humid. The mean maximum summer temperature is about 39 degree centigrade in both the regions. But the mean minimum winter temperature is 11.5 degree centigrade in the irrigated coastal villages whereas it is 14 degree centigrade in the non-irrigated village Sandhagaon.

Average annual rainfall in Orissa during the last 50 years is around 1480 mm. However, variation in rainfall is considerable as it is dependent on monsoon which is often erratic. Over 75 per cent of rainfall is received during June to September. The mean annual rainfall in the coastal plain is 1577 mm. but it is only 1421 mm. in the central table land.

4.2.3 Infrastructural Facilities

To begin with, the education and health facilities available in the villages are considered which promote manpower development in an area. Development of manpower holds the key to all material progress. In the irrigated villages of Charapara and Harinababi educational facilities are available upto Minor School and for High School and college education students go to nearby villages Nikirai and Indupur which are at a distance of only 1.5 km from these villages. There are no health facilities in the villages and these are available in Nikirai and Indupur (see Appendix 4.1).

In the non-irrigated village Sandhagaon there is only

one Lower Primary and one Upper Primary School in the village. For school education higher than primary level students go to the village Baghuapola which is 3 km far from this village. The nearest college is at Talcher town at a distance of 6 km from the village. There is no health facility in the village itself. For all medical treatment villagers go to Talcher.

Having discussed the infrastructural facilities required for human development, facilities required for material development of the area are considered. This categorisation is not exhaustive but overlapping. There are no marketing and storage facilities, retail input centres and food processing facilities in the irrigated villages Charapara and Harinababi. Also credit facilities, communication facilities and agricultural extension facilities are conspicuous by their absence in the villages. But most of the above mentioned facilities are available in Indupur and at the block headquarters Kendrapara which is 18 km far from these two villages.

In the non-irrigated village Sandhagaon all of these infrastructural facilities are absent. But most of these facilities are available in the nearest town Talcher which is the block headquarters. Rice mills and rice hullers are available in nearby villages. All the information regarding infrastructural facilities has been summarised in Appendix 4.1.

4.2.4 Selected Socio-Economic Indicators

Some selected socio-economic indicators of the three study villages are given in Table 4.2. In this section, we will discuss the demographic characteristics only and other socio-economic indicators will be elaborated under relevant sections in the main text.

There are 43 households in Charapara, 22 in Harinababi and 33 in Sandhagaon. The proportion of households which are scheduled castes is 37 per cent in Charapara and 61 per cent in Sandhagaon. There is not a single scheduled caste household in Harinababi. Total population is 151 in Charapara, 179 in Harinababi and 234 in Sandhagaon. In all the three villages more than 50 per cent of population are adults. Average family size is the highest i.e. 8.1 in Harinababi, followed by 7.09 in Sandhagaon and it is quite low (3.51) in the advanced village Charapara. This is partly due to higher emigration from Charapara. The number of emigrants is the highest (i.e.28) in the case of Charapara, whereas it is 21 in Harinababi and 13 in Sandhagaon. The percentage of adult population who are illiterates is the highest in the backward village Sandhagaon.

4.3 SOCIO-ECONOMIC CHARACTERISTICS OF HOUSEHOLDS

In neoclassical theorizing on tenancy, the peasantry is considered as a homogeneous mass of peasants and can be divided into two categories like lessor and lessee only in a taxonomic sense. The lessor is the landlord and is

portrayed as the dominant party in the transaction and the tenant is the weaker party. But we stress that the class configuration of the peasantry is crucial, and that leasing behaviour is to be superimposed on a differentiated class structure. A careful observation of the three study villages reveals that the position of a household in the class hierarchy is determined at two levels. At the first level it is the category of farm household like owner cultivator, part tenant, pure tenant, pure lessor and agricultural labourer that counts in establishing the class position in the village. Secondly, within each category peasants are further classified according to size class of owned or operational holding.

All the households in each village have been divided mainly into five categories viz. owner cultivator, part tenant, pure tenant, pure lessor, landless labourer depending on their behaviour with respect to hiring of labour, renting land and the surplus of production and income over consumption.⁵

The part tenants have been further subdivided into two categories owner tenant and tenant owner. The category of landless labourer includes casual labourer, attached labourer and farm servant. And a residual category has been added to capture those households who do not fit into any of these categories. The categorisation of households is based on the viewpoints of the residents i.e. how they

⁵ Bharadwaj (1985, p.335) explicitly considers the level of surplus production over consumption requirements as a criterion to classify households.

perceive their class position and rank themselves in a class hierarchy. The different categories are explained in the next section.

4.3.1 Categorisation of Farmers

Owner Cultivator(OC): The owner cultivator cultivates his owned land only and does not have any leased in land under annual tenancy. The owner cultivator may have some land (an insignificant area) under seasonal tenancy for the cultivation of specific crops. The owner cultivator may lease out some land. In the study villages the owner cultivators are considered to be at the top of the class hierarchy. Most of them hire in labour for agricultural operations. And they have adequate surplus after consumption.

Part Tenant(PRT): The part tenant cultivates his owned land as well as leased-in land. An owner tenant(OT) is a part tenant who has half or more than half of his operational holding as owned land. Thus an owner tenant is more of an owner than a tenant. The reverse is the tenant owner(TO) who is more of a tenant than an owner and has more than half of his operational holding as leased-in land. In the study villages a cultivator who leases in land is considered as below the status of an owner cultivator. And most of the tenants use their own labour for agricultural operations. They are just able to meet their consumption needs, with hardly any surplus left after

consumption.

Pure Lessor(PL): The pure lessor leases out all of his owned land and his operational holding is nil. He may lease in a small segment of land seasonally. He does not have much surplus after consumption.

Pure Tenant(PT): The pure tenant is the landless tenant who does not have cultivable land of his own. He has leased in land as he has some means of production like bullocks and a plough. He and some of his family members may be casual labourers and hire out labour on a regular basis. The pure tenant is usually a deficit household and his income from cultivation and wage labour hardly meets his annual consumption needs.

Landless Casual Labourer(LCL): The landless casual labourer does not have any owned land and he hires out labour to earn his livelihood. He is not attached to any particular employer.

Attached Labourer(AL): The attached labourer is attached to a particular employer and works for him. Usually he is provided with homestead land or land for cultivation by the employer. But he has the freedom to work for other employers when his employer does not have enough work for him. He is semi-attached to that extent. And he is paid wages for the days he works for the employer.

Farm Servant(FS): The farm servant is a fully attached labourer who is paid annually or monthly. And he does

not have the freedom to work for other employers during the period of the contract. He is given food and clothing by the employer.

Others: In this category are included the government job holder, pensioner and single widow family.

Land is the mainstay of livelihood in rural areas and landownership not only indicates possession of property and wealth but also is a source of power and prestige. Therefore, the farmer categories i.e. the owner cultivator, part tenant, the pure tenant and the pure lessors have been further classified into four farmer classes on the basis of the size of operational holding or owned holding depending on the type of farm household characteristics under study. For the purpose of analyzing inter-class differences in cropping pattern, cropping intensity, crop yield, cost of cultivation, farm income, crop sale and sources of household income and consumption and investment expenditure the households have been classified on the basis of operational holding. While studying asset structure, indebtedness, asset sale and migration aspects the owned holding criterion has been adopted to classify the households.

4.3.2 Classification of Farmers

The farmers interviewed have been classified into four

classes: Marginal, Small, Medium and Large Farmer.⁶ Each farmer class has been defined as follows:

Marginal Farmer(MF): Farmer with a holding size of less than one hectare of unirrigated land or 0.5 hectare of irrigated land;

Small Farmer(SF): Farmer with a holding size of 1 to 2 hectares of unirrigated land or 0.5 to 1 hectare of irrigated land;

Medium Farmer(MDF): Farmer with a holding size of 2 to 4 hectares of unirrigated land or 1 to 2 hectares of irrigated land;

Large Farmer(LF): Farmer with a holding size equal to or exceeding 4 hectares of unirrigated land or 2 hectares of irrigated land.

It is to be noted that there is simultaneity between holding size and tenancy status. A farmer at the same time belongs to a size class of land holding and also to a particular tenancy status. Therefore, the issue of productivity differential between owned and sharecropped land, and the relationship between size and productivity should be studied together (Sen, 1981). Our observation of farming practices in the study villages made us to believe that the right approach to study the productivity differential is to classify the households according to farm categories like owner cultivator, owner tenant, tenant

⁶ This classification is based on the class limits as used by the state Government of Orissa.

owner and pure tenant. And then each farm category needs to be further divided into farmer classes on the basis of size of holding. One should try to study the size effect under each farm category by controlling the tenancy status. And to study the impact of tenancy, the size of holding should be controlled. However, due to data limitation i.e. a few number of observations under each sub-category, we could not follow this method in a satisfactory way in the present study. But we have attempted to study both issues simultaneously when it seems necessary.

4.3.3 Distribution of Households: Category and Caste

The distribution of households in three villages as per farmer category and caste is presented in Table 4.3. In the advanced village Charapara all categories of households are found like owner cultivator, owner tenant, tenant owner, pure tenant, pure lessor, landless casual labourer, attached labourer, farm servant and others. Thus an elaborate pattern of social cleavage is observed in the agriculturally progressive village. In the moderately advanced village Harinababi, there are no landless labourer households as there is no scheduled caste household residing in that village.⁷

In the non-irrigated village Sandhagaon all categories of farm households are found except attached labourer and

⁷ As there are no scheduled castes residing in the village Harinababi, the wage rate is found to be higher i.e. Rs 15/day than the wage rate (Rs 12/day) in Charapara. Thus, the labour market is segmented.

farm servant. As the farmers in Sandhagaon mostly follow monocropping, there is no need to keep attached labourers because of underutilisation of labour during slack period. All the farm servants employed in this village are immigrants from nearby jungle areas and they stay in their employers' residence.

It is an acknowledged fact that in rural areas in a hierarchical society, class and caste relationship are intertwined to a significant extent and considerably overlapping. An analysis of the caste configuration in the three villages reveals that in Charapara out of total 43 households 27 are 'Khandayats' and the rest 16 belong to scheduled castes. The *khandayats* are upper castes in the caste hierarchy and are traditionally held to belong to the warrior caste: supposedly fighting for the king during war and at other times cultivating their land. The scheduled castes are the lower castes and are traditionally do sweeping and scavenging jobs and hiring out their labour. The scheduled castes live in a cluster at the outskirts of the village. It is noted from Table 4.3 that all the labourer households and the pure tenants in Charapara belong to scheduled castes.

In village Harinababi out of a total of 22 households, 20 belong to the caste '*gudia*' and the rest 2 are '*khandayats*'. *Gudias* are a middle caste in the caste hierarchy and are traditionally known to prepare and sell sweets and snacks. Now they are considered under other backward classes (O.B.C) just above the scheduled castes.

The cultivators in Harinababi have less access to government facilities in comparison to cultivators of Charapara who have familial or social ties with government officials, the majority of whom come from higher castes.

In the non-irrigated village Sandhagaon out of the total households of 33, 13 are 'karan' by caste and the remaining 20 are scheduled castes. The 'karans' are an upper caste and are traditionally held to have accounting jobs near the king. The *karans* lead an ostentatious life. In Sandhagaon all pure tenants and casual labourers belong to scheduled castes. But there are one owner cultivator, one tenant owner and one pure lessor household who belong to scheduled castes. Whereas in Charapara there is not a single scheduled caste household owning land, in Sandhagaon there are landowning scheduled castes. Thus caste rigidity is observed in the advanced village Charapara, which we may attempt to explain in terms of the power relations prevailing in that village.

Thus, in the three study villages, all pure tenants are scheduled castes. In the advanced village Charapara, all the scheduled castes are landless, whereas in the non-irrigated village Sandhagaon landowning scheduled castes like owner cultivator, tenant owner and pure lessor households are found.

4.3.4 Land Ownership Structure

In order to examine the Marxist approach to the theory of share tenancy, the preliminary step is to study the

production relations⁸ prevailing in a village which may have an important bearing on the observed mode of transaction. To perceive the production relations one must be sufficiently aware of the inequality in the ownership of means of production existing in the villages. And inequality can directly be gauged by studying the landholding pattern, the asset structure, the household income, consumption expenditure (from which it can be indirectly inferred), indebtedness status and the depletion or acquisition of assets of the households in the villages.

As the leased-in area of a household changes from year to year, leading to fluctuation in the size of operational holding, the owned land area has been taken into consideration to determine the class status of a household. The owned landholding pattern of households according to farmer category and class is contained in Table 4.4. An acre of irrigated land has been calculated to be equivalent to two acres of non-irrigated land, as the cropping intensity in the case of irrigated land is almost twice the cropping intensity of non-irrigated land and the price of one acre of irrigated land is about twice the price of one acre of non-irrigated land.

Table 4.4 shows that the average landholding size is

⁸ Production relation refers to the access of different classes of people to productive resources, and hence to control over what they produce. According to Marx: "In the social production of their life, men enter into definite relations that are indispensable and independent of their will, relations of production which correspond to a definite stage of development of their material productive forces."

Quoted from Bottomore et al. eds. (1983, p.395)

the highest i.e. 5.54 acres in Charapara and then 3.61 acres in Harinababi and the lowest 2.91 acres in Sandhagaon. In the advanced village Charapara there are 5 LFs under the owner cultivator category and there is none in Harinababi and Sandhagaon. Most of the owner tenants are MFs. All the tenant owners are MFs in all the villages. Most of the pure lessors are marginal and small farmers. There are some medium farmer pure lessors in Sandhagaon. This point will be further elaborated while studying tenancy in Chapter VI.

Thus, in all the three study villages there is no significant difference in ownership holding between the lessors as a class and the tenants as a class. Lessors as well as tenants are mostly found to be marginal and small farmers.

Now we analyze distribution of owned land among different classes (see Table 4.5). Our purpose is to see whether there is significant inequality in ownership holding, such that a conventional Marxist framework in terms of a differentiated peasantry can be applicable to our data. Table 4.5 shows that the peasants are more differentiated in the advanced village Charapara in comparison to other two villages. In Charapara MFs constituting 31 per cent of households own only 8 per cent of owned land, whereas the LFs constituting about 19 per cent of households account for 48 per cent of the owned area. In village Harinababi the MFs are 36 per cent of the total households and they own only 15 per cent of the

landholding. On the other hand, the MDFs are 32 per cent of the households and occupy about 54 per cent of owned land. In the non-irrigated village Sandhagaon about 47 per cent of households are MFs and they own 21 per cent of owned area, whereas the MDFs constituting 27 per cent of the households possess 47 per cent of the owned land. It is clearly discernible from Table 4.5 that the peasantry is more differentiated in village Charapara. The Lorenz curves drawn on the basis of the cumulative distribution of owned holding for the three villages are shown in Figure 4.1 and supplement this finding.

Thus, our data suggest that differentiation of peasantry i.e. skewed distribution of landholding is observed in all the study villages. Therefore, one should attempt to study leasing behaviour of a household according to its class position in the society and relate to it.

4.3.5 Structure of Operational Land-holding

It is often observed that the concentration ratio in the case of operational holding⁹ is less than that of ownership holding (Laxminarayan and Tyagi, 1982: 58). It is argued that leasing-in by small farmers and leasing-out by large farmers cause reduction in concentration in operational holding.

The distribution of operational land area according to

⁹ Operational holding is usually calculated as owned holding plus leased-in area minus leased-out area. Also usufructuary mortgage is taken into account. It is added if one is operating somebody's land mortgaged to him, it is deducted, if one has mortgaged his land to somebody else.

farmer classes is given in Table 4.6. It is observed that there are no LFs in Harinababi and Sandhagaon, whereas there are 5 LFs in the village Charapara. There is concentration of land in the hands of MDFs and LFs in all the villages. Inequality in operational land area is more pronounced in the advanced village Charapara. The Lorenz curves plotted on the basis of operational land area (Figure 4.2) support this finding. The percentage of operated land which is irrigated decreases with increase in farm size.

In all the villages the concentration in the case of operational holding is less than that of owned holding. As the Lorenz curves plotted on the basis of operational holding have moved towards the diagonal. But it is to be noted that the curves have shifted closer to one another. This implies that the role of tenancy in decreasing concentration in land-holding is of different degree in each village. In the case of Sandhagaon, the Lorenz curve has substantially shifted towards the diagonal. This implies that the impact of tenancy in levelling down land-holding is more in Sandhagaon. This finding will be further substantiated in Chapter VI when we will discuss incidence of tenancy.

4.3.6 Asset Structure of Households

Land is no doubt the primary asset in rural areas but the possession of other assets like real estate (house, building), livestock, agricultural implements,

consumer durables, gold and silver, savings and receivables should be taken into consideration to give a clear picture of the extent of inequality observed in the study villages. For this purpose the asset structure of all the households has been studied and the findings have been given in Table 4.7 and Table 4.8 according to farmer category and farmer class respectively.

Table 4.7 shows that in Charapara asset value per household ranges from Rs.2,962 in the case of landless labourer to Rs.2,37,119 for an owner cultivator. Per household asset in the case of lessor class i.e. PLs is Rs.91,511. And in the case of part tenants it is Rs.78,013. Thus, with regard to asset ownership, there is no significant difference between the lessors as a class and landowning tenants (the PRTs) as a class. But, in the case of pure tenants, who do not have any owned land, the asset value per household is significantly smaller i.e. Rs.8,300. It is to be noted that the asset value of a PT household is significantly higher than that of a landless labourer (Rs.2,962). This is because, the ownership of draft animals like bullocks is a prerequisite for a landless labourer to qualify for leasing in land and to move to the next rung in the agricultural ladder i.e. to become a pure tenant.

In Harinababi the OCs, PLs and the PRTs on an average possess assets worth of Rs.1,40,507, Rs.56,083 and Rs.1,00,150 respectively. In Harinababi some MDFs had leased in land as they were good farmers. As a result, the

asset value in the case of PRTs is more than that of PLs who were MFs.

In Sandhagaon the asset value per household is the highest in the case of OCs i.e. Rs 1,33,258/- and then in descending order are the PLs (Rs.1,11,217), PRTs (Rs.85,620), PTs (Rs.18,883) and the LLs (Rs.6,778) successively. Thus, in this village there is no significant disparity in asset ownership between lessors as a class and part tenants as a class. But there is a large gap in asset value between a lessor household and a pure tenant household.

From the above analysis, it becomes clear that with regard to asset ownership, there is no real difference between the pure lessors as a class and landowning tenants as a class. But there is significant difference between the part tenants as a class and pure tenants as a class. Therefore, the tenants should not be considered as a homogeneous class and it is wrong to join together the part tenants and pure tenants under one class of tenants. There is considerable difference in asset value per household between pure lessors and pure tenants.

At the village level, the asset value per household is Rs.99,902 in Charapara, Rs.1,19,823 in Harinababi and Rs.57,493 in Sandhagaon.

Then we study percentage distribution of assets among different farmer classes. Table 4.8 shows that asset distribution is markedly skewed in all the villages. In Charapara the MFs and SFs taken together constitute 33 per

cent of households and they account for 26 per cent of assets. But the MDFs and LFs combinedly own 72 per cent of assets though they constitute only 28 per cent of total households. The share of the PTs (1.0%) and the LLs (0.8%) in the total asset value is very small though they constitute 12 per cent and 26 per cent of households respectively.

In village Harinababi the MFs and SFs taken together constitute 68 per cent of households and they account for only 48 per cent of assets whereas the MDFs constituting the remaining 32 per cent of households command 52 per cent of assets.

In village Sandhagaon the share of MFs and SFs taken together in total assets is 54 per cent and they constitute far less per cent (33%) of the village households. The MDFs being 12 per cent of total households command 34 per cent total assets. It is to be noted that the share of landless class (which includes the landless labourers and pure tenants and others) in total assets is higher than that of Charapara. Thus, in Sandhagaon the distribution of assets according to land ownership is less skewed than that of irrigated villages. Because, a significant proportion of income comes from salary besides cultivation. We will discuss this later under the section on sources of income.

It is quite clear from Table 4.7 and Table 4.8 that the landless class possess a very insignificant proportion of consumer durables (radio, cycle, cot, almirah, table, chair, television etc.) and also gold and silver. In the

irrigated villages the landholding class have considerable savings whereas the landless class do not have any savings. But surprisingly in the non-irrigated village none of the households including the landholding class reported having any savings.

Then the composition of assets into different types according to farmer categories is given in Table 4.9. In Charapara and Harinababi, in the case of the landed classes like owner cultivator, part-tenant and pure-lessor, agricultural land and real estate taken together constitute more than 80 per cent of total assets. In Charapara in the case of pure tenants, livestock constitutes 72.3 per cent of their total asset. A pure tenant's major asset is the bullocks which he requires to cultivate land. In the case of landless labourers their major asset is real estate i.e. the living house (58.3%).

In the non-irrigated village Sandhagaon in the case of the landholding class agricultural land and real estate taken together constitute 75 per cent to 85 per cent of total assets. In the case of pure tenants and landless labourers real estate constitute 63.6 per cent and 87.4 per cent of their total assets respectively. In this village, the pure tenant households have considerable salary income for which they have been able to construct good tile houses. Therefore, the major assets of pure tenants is real estate rather than bullocks as found in Charapara.

It is to be noted that in the irrigated villages the proportion of agricultural implements to total assets

ranges from only 0.1 per cent to 0.2 per cent in the case of the landholding class and in absolute rupee terms it ranges from only Rs.100 to Rs.300 per household, which shows the absence of mechanisation. What most of the farmers possess are a plough with wooden beam, Mould Board plough, hand hoe, rake weeder, hand sprayer and simple hand tools.

In the non-irrigated village Sandhagaon the per cent of agricultural implements to total assets varies from about 1 per cent to 2 per cent and also in money terms it varies from Rs 250 to Rs 1700 per household. It is significantly higher than that of the irrigated villages. This is because most of the farmers in Sandhagaon possess bullock carts which they use to carry farmyard manure (FYM) to their land. Even pure tenants and pure lessors possess bullock carts. Those who possess bullock carts earn by hiring out the carts at the rate of Rs 30 per day. In the irrigated villages the farmers carry the F.Y.M with the help of a balance type structure by keeping the F.Y.M in baskets made of thin bamboo strips on two sides of the balance and carrying it over their shoulders. As the village road is on a higher level than the fields and the fields are not levelled, there is in effect no road on which the bullock-carts can move and reach the fields. Thus ecology sometimes affects the production process significantly. This aspect has not been given due attention and emphasis that it deserves specifically in studying the diverse complex production relations and labour process

observed in backward agriculture¹⁰. The protagonists of large scale surveys simply in their attempt to generalise and to draw overall conclusions evade these issues which of course undoubtedly have great relevance. Thus intensive village studies provide answers to some of the puzzling issues, which the large scale surveys fail to perceive because of their excessive emphasis on generalisation.

To summarise our findings with regard to asset ownership structure according to tenancy status, the lessors are not the wealthy, rich and big farmers representing the so-called landlord class. Rather there is no significant difference in asset ownership between the lessor class and the landowning tenant class. But there is ample difference in asset ownership between the part tenant and the pure tenant class.

4.3.7 Household Income and Sources

Having gained some idea of the landholding pattern and asset structure of the households, it is prudent to analyze household income and the different sources from which income is derived, to examine whether property ownership affects the income earning opportunities that are available to the peasants. Here the farmers have been classified on the basis of operational holding as income from cultivation depends on operational holding and farm income is the major source of income in rural areas.

¹⁰ See Geertz (1963) for an excellent narration of the impact of ecology on the production process. Also see Djurfeldt and Lindberg (1975).

4.3.7.1 Household Income according to Farmer Category

Data on distribution of household income among different sources according to farmer category are contained in Table 4.10 and Table 4.11. Table 4.10 shows that in village Charapara the average annual household income ranges from Rs.3,287 in the case of landless labourers to Rs.24,468 in the case of owner cultivators. The income per household in the case of pure lessors (Rs.10,870) is significantly higher than that of a part tenant household (Rs.6,573). Because the pure lessor households have significant income from remittances. Annual income per household in the case of pure tenant is Rs.4,424 which is quite lower than that of a part tenant. In Harinababi average household income in the case of OCs is the highest (Rs 17,851). Income of a PL (Rs.9,981) is significantly lower than that of a PRT (Rs.15,653). Part tenants in Harinababi are efficient farmers, as observed from their income from cultivation, as compared to PRTs in Charapara.

In the non-irrigated village Sandhagaon, average household income is the highest for OCs i.e. Rs.22,293 and then it gradually decreases to Rs.17,799 for PRTs, Rs.16,085 for PLs, Rs.6,328 for LLs and Rs.5,421 for PTs. Thus, in this village there is small difference in income between the lessors as a class and part tenants as a class. But income of the pure tenants is significantly lower than that of a part tenant. It is clear from the table 4.10 that income from cultivation is negative which will be explained

in Chapter V on farm economy.

At the village level average annual household income is the highest (Rs 16,729) in Harinababi and then it is Rs 11,728 in Charapara and Rs 11,750 in Sandhagaon.

4.3.7.2 Percentage Distribution of Household Income among Different Sources

A break up of total household income into different sources (Table 4.11) shows that in village Charapara in the case of OCs and PRTs the major source of income is cultivation i.e. 32.3 per cent for OCs and 36.8 per cent for PRTs. But it is to be noted that while the share of imputed value of own labour in total income is only 1.7 per cent for OCs, it is 11.8 per cent for PRTs. From this it can be construed that as part tenants hesitate to hire out their labour because of their higher caste status, they lease in land. Therefore, some economists tend to interpret tenancy as a labour adjustment mechanism (Sharma and Dreze, 1990; Bliss and Stern, 1982).

In Charapara, in the case of PTs, a major proportion (45%) of their income is from wages. The share of imputed value of labour in income is 15 per cent. Thus, share of income from labour in total income is 60 per cent. But income from cultivation accounts for only 18 per cent of total income. The pure tenant is in effect more of a labourer than a cultivator. All the pure tenants are found to hire out labour (Table 4.11). Thus, PTs lease in land to supplement their wage income. In the case of PLs the

largest component (47%) of their income is from remittances. This is because the households whose heads have migrated and are employed in urban areas are pure lessors as there is not sufficient manpower in the household to self cultivate the land. The emigrant heads of households remit money regularly to their family members who reside in the village. In the case of landless labourers, share of wages in total income is the largest i.e. 79 per cent. The landless labourers and pure tenants also earn by catching and selling fish, carrying a palanquin, pulling a rickshaw, doing small jobs in marriage ceremonies when there is no agricultural work available which constitute 2 per cent and 5.7 per cent of their income respectively.

In contrast to Charapara where cultivation is the major source of income for OCs and PRTs, in Harinababi in the case of OCs highest proportion of income is from remittances (41%) and in the case of PRTs it is from business (52%). The PRTs are business men by caste and they earn their income from small business like a betel shop, or small restaurant. Table 4.12 shows that an owner cultivator hires out labour. But none does so in Charapara. Caste structure seems to be too rigid in Charapara. In the case of pure lessors remittances account for the largest component (69%) of income. As heads of lessor households have migrated to urban areas for employment.

In the non-irrigated village Sandhagaon for OCs, PRTs, PTs and PLs the largest source of income is from salary. As

the village is situated near the Talcher Thermal Power Station and Talcher unit of South Eastern Coal Fields Limited and Samal barrage construction work, many residents work there as helpers, operators, drivers, fitters and peons. An owner cultivator also hires out labour for non-agricultural work under contractors as shown in Table 4.12. Income from cultivation is significantly negative for all cultivator classes. But in the case of PRTs and PTs 16 per cent and 23 per cent of their income come from imputed value of own labour respectively. In the case of PTs 23 per cent of their income is from imputed value of labour and 18 per cent is from wages. All PTs are found to hire out labour. In non-irrigated agriculture work is not available. That is why the share of imputed value of labour is more than that of wages. Therefore, tenancy seems to be merely a labour adjustment mechanism rather than for any commercial purpose. Under other income pension and income earned by hiring out bullock-cart are included. In the case of casual labourers 98 per cent of their income is from hiring out labour.

To have a clear picture of the occupation of the households according to farmer category, the percentages of households engaged in different sources of income are presented in Table 4.12.

At the village level, it is found that in both Charapara and Harinababi the largest component of household income is from remittances followed by cultivation. In the case of Sandhagaon, salary constitutes the largest source

of income followed by remittances. Thus, in none of the villages, cultivation turns out to be the largest source of income. The village can no longer be considered as a closed self-contained social unit. Rather, the village boundary is breaking down as remittances and salary income are found to play a greater role in the village economy than that of income from cultivation.¹¹

In this context, one may question, can land be taken as an index to establish the position of a household in the class hierarchy. Therefore, we have measured the correlation coefficient between owned land, total asset value and total income. Table 4.13 reveals a high and significant correlation between the variables (see Table 4.13). Thus, in our study villages, land ownership reflects class position of a household in a village community. It is to be noted that in the non-irrigated village Sandhagaon the correlation coefficient between owned land and income is comparatively low and less significant, as other sources of income like salary are more important.

Here we try to sum up our major findings with respect to distribution of income and sources of income according to tenancy status. There is significant difference in annual income per household between pure lessors as a class and part tenants as a class in Charapara and Harinababi. Income per pure lessor household is higher than that of a part tenant in Charapara. And the reverse is true in

¹¹ See Bailey (1971a) and Beteille (1971) for a vivid description of how village economy is gradually being integrated to the outer world.

Harinababi. In the non-irrigated village Sandhagaon, there is small difference in income per household between pure lessors as a class and part tenants as a class. The largest component of income in the case of part tenants is from cultivation in Charapara, small business in Harinababi and from salary in Sandhagaon. Income per household in the case of a pure tenant is significantly lower than that of a pure lessor in Charapara and Sandhagaon. In the case of pure tenants, the largest source of income is wages in Charapara and salary in Sandhagaon. In the case of pure lessors, the largest source of income is remittances both in Charapara and in Harinababi. But it is salary in Sandhagaon. Thus, in Charapara and Harinababi, the lessors are semi-absentee being in employment in urban areas, In Sandhagaon the lessors are residents in the village but salaried.

4.3.8 Consumption Expenditure

After considering information on the annual income of households, their consumption expenditure pattern should be studied so that deficit households can be identified and their adjustment mechanism to cover the deficit can be analyzed.

In a village the class position of a resident can easily be perceived from his style of living which includes the way he dresses, the food he takes, ceremonial expenses he incurs which can be captured in a single figure of his total consumption expenditure.

Data on household consumption expenditure according to

farmer category reveal (Table 4.14) that in Charapara the annual consumption expenditure per household is the highest for OCs i.e. Rs.12,406 and then it gradually decreases being Rs.9,689 for PLs, Rs.8,380 for PTs, Rs.7,763 for PRTs and Rs.3,593 for landless labourers. In Harinababi the average consumption expenditure per annum is highest i.e. Rs.14,540 for PRTs and then Rs.13,514 for OCs and Rs.10,200 for PLs. The annual consumption expenditure per capita is also calculated and it shows the same gradation as annual household consumption in both the villages.

In Sandhagaon (see Table 4.14) the annual consumption expenditure is highest in the case of OCs(Rs.25,700) and then gradually decreases being Rs.17,475 for PRTs, Rs.12,917 for PLs, Rs.10,617 for PTs and Rs.9,287 for casual labourers. The consumption expenditure per capita is also shown in the table but it reveals the same gradation as per household consumption expenditure.

It is to be noted that average consuming members is the highest for OCs in all the study villages. Number of consuming members per household in the case of PLs is found to be lower than that of a PRT and a PT in all the study villages. This is due to the emigration of family members of PL households to urban areas.

The coefficient of correlation between annual income and annual consumption expenditure is found to be high and significant in three villages.¹² A comparison of annual

¹² The Pearsonian coefficient of correlation between annual income and annual consumption expenditure is calculated to be 0.78 in Charapara, 0.63 in Harinababi and 0.74 in Sandhagaon at

household income with annual household consumption expenditure reveals that in village Charapara the OCs and the PLs are surplus households (income being greater than consumption) and the remaining categories are deficit or just at the margin of subsistence. In village Harinababi the OCs and the PRTs are surplus households whereas the PLs are deficit households. In the non-irrigated village surprisingly the OCs are deficit households as the better off 'karans' lead an ostentatious life by spending a lot on festivals and sending *bebhars* (customary gifts) on ceremonies. In Sandhagaon the PRTs, the PLs are surplus households and the PTs and casual labourers are significantly deficit households as they do not get sufficient work due to the non-irrigated farming where most of the farmers follow monocropping.

We must consider to what extent this type of analysis in terms of annual income and annual expenditure to determine the deficit households is appropriate. This is necessary since in rural areas income does not accrue regularly and it is actually very difficult to measure income accurately when the households are themselves producers and consumers. The measurement is not cent per cent scientific as some sort of arbitrariness enters into the calculation just to provide something rather than nothing. For example, it is very difficult to measure the amount that a household spends on both labour and material to rear livestock and how much net income he earns out of

0.1% level of significance.

it as he neither purchases the fodder and grass nor sells the products like milk, eggs and FYM. And it is also fallacious to measure something monetarily in terms of profit and loss when that production activity was not undertaken with any profit motive. It is obvious that to understand the family farms who produce for their own subsistence consumption and not for the market an alternative framework is necessary and Chayanov's attempt in this regard is commendable.¹³ But Chayanov's analysis is not applicable to India as hiring in/out of labour is ruled out in his model. Economists must attempt to develop a coherent and consistent theory to capture the essence of the market mechanism and production process in backward agriculture. Unfortunately, though existing neoclassical economics is criticised because of its inadequacy in explaining human behaviour in traditional agriculture, no effort has been undertaken to formulate an alternative appropriate theory in the context of India. Those who deny the neoclassicist explanation lean over to the readily available Marxist theory and try to enlist certain tenets from Marx's writings by scanning it and with the help of that try to explain market transactions in backward agriculture. But it is debatable to what extent a theory developed on the observations of a quite different society, with differing norms and developing under different socio-economic conditions can explain the Indian situation. It is

¹³ In spite of various sharp criticisms levelled against Chayanov, his work is the first serious attempt to study subsistence peasant household behaviour in a scientific way.

not to under-estimate the Marxist framework as a theoretical device, but what is required is to mould it creatively and scientifically to fit to the Indian setting.¹⁴

4.3.9 Inequality in Study Villages

A summary of observed inequality in three villages with respect to land ownership, asset possession, income and consumption expenditure is given in Table 4.15. It is shown that the coefficient of skewness is higher in Charapara in the case of all the variables excluding consumption expenditure than in the other two villages. Thus, one can suggest that inequality increases with increase in agricultural advancement.

4.3.10 Investment Expenditure

Having studied the sources of income and consumption expenditure of households, the logical next step is to probe the investment pattern of surplus households. How do surplus households invest their surplus income? Do they simply save it for contingencies? Or do they invest it in different channels? What are the different avenues for investment in rural areas? It is observed that in the irrigated villages most of the surplus OCs have constructed pacca houses with their surplus income and that they also undertake some land improvement measures which will be

¹⁴ Patnaik's (1983) explanation of retarded development of capitalist farming in India in terms of historical existence of high ground rent is one such example.

discussed in greater detail in Chapter VII. In the non-irrigated village the well-to-do farmers construct tile houses and also buy bullock-carts.

In all the villages, it is found that most of the surplus income of the landed class is of course depleted in expenses on daughter's marriage which range from Rs.20,000 to Rs.60,000 depending on the status of the family and the buying price of the groom in terms of demanded dowry. The number of employed males of marriageable age is quite small in comparison to the heavy demand by the families with marriageable daughters. As a result, the parents of the would-be groom demand certain items like scooter, coloured television, refrigerator and cash to be given as dowry with the bride. Who agrees to pay that price, he wins the race and the marriage proposal is finalised with his daughter.

It is observed that cultivators borrow from their relatives and friends and even sell land to incur expenses for daughters' marriages. We will discuss this in the section on causes of indebtedness and sale of land.

4.3.11 Indebtedness of Households

After analyzing the investment pattern of surplus households, the next plausible step is to examine the adjustment and escape mechanism of deficit households in terms of their indebtedness and depletion of assets to meet emergencies. As the lease market and the credit market very often get interlocked, the problem of indebtedness has been studied in detail and with care. In this section the extent

of indebtedness, sources of finance and purpose of borrowing of different households are discussed and intercategory and interclass differences are highlighted.

4.3.11.1 Percentage of Households Indebted according to Category and Class

Table 4.16 shows that in Charapara 56 per cent of PL households are indebted. In the case of PRTs, the percentage of indebted households is 50 per cent. Thus, there is no significant difference in the percentage of indebted households between the PLs and PRTs. But in the case of PTs, the indebted ratio is quite high i.e. 80 per cent. In Harinababi none of the PLs is indebted, whereas all PRTs are in debt.

In the non-irrigated village Sandhagaon the percentage of indebted households is 33 per cent in the case of PLs, 50 per cent for PRTs and cent per cent for PTs. Thus the indebted ratio is lower in the case of PLs than that of PRTs as well as the PTs.

At the village level the percentage of indebted households is the highest i.e.64 per cent in the non-irrigated village and it is 51 per cent in Charapara and 41 per cent in Harinababi (Table 4.16).

As tenancy status is more fluid varying from year to year, the indebtedness of landed households has been studied according to different classes differentiated on the basis of ownership holding and the landless classes have been sub-divided into two classes like PTs and

landless labourers (LLs).

A comparison of the indebtedness ratio of different landed classes reveals that in all the villages there is no clear tendency for ratio of indebtedness to decline with increase in holding size (see Table 4.17). But, somehow the inverse relationship between the indebtedness ratio and size of holding is more transparent in Charapara than in Harinababi. In Charapara while 62.5 per cent of the MFs are indebted it is only 20 per cent in the case of LFs. Interestingly, in Sandhagaon, the relationship is reverse, implying that the indebted ratio increases with increase in farm size. This is, in part due to more weightage of other sources of income like salary than that of income from land in total household income.

A comparison of the indebted ratio of pure tenants with that of landless labourers reveals that it is higher in the case of PTs than that of landless labourers in Charapara and Sandhagaon. In Charapara the indebted ratio for PTs is quite high i.e. 80 per cent and it is 64 per cent for LLs. In Sandhagaon all PTs are indebted, whereas 67 per cent of LLs are indebted.

4.3.11.2 Sources of Credit

The eligibility of a household in getting a loan depends on its credit-worthiness, which is gauged by the type of collateral that the household is able to offer and also its access to and influence over the institutional or private sources of finance. Therefore, it is necessary to

analyze the sources of finance according to farmer classes to assess the differential access of different classes to different sources.

4.3.11.2.1 Distribution of Number of Loans Among Different Sources

Table 4.17 shows that in village Charapara in the case of SFs, MDFs and LFs more than 75 per cent of the number of loans are from institutional sources like commercial banks, co-operatives and the government employment programme meant for the self-employment of educated youth. But in the case of MFs and PTs and LLs more than 50 per cent of the number of loans are from private sources and the rest are subsidised loans under government poverty alleviating programmes like Integrated Rural Development Programme (IRDP)¹⁵ and Economic Rehabilitation of Rural Poor (ERRP)¹⁶. It is clear from the table they do not have any access to institutional loans from commercial banks and cooperatives, where a borrower has to pledge some land or gold to get a loan and also one must have sufficient influence over or connection with the officer who will sanction the loan. It was found that the panchayat

¹⁵ IRDP refers to Integrated Rural Development Programme under which subsidised loans are disbursed to the poorest of the poor for acquiring income generating assets with the goal to lift them above the poverty line.

¹⁶ ERRP is the Economic Rehabilitation of Rural Poor Programme initiated by the state Government in 1980-81 and aims at improving the economic status of the poorest of the poor families particularly landless labourers. It provides subsidised loans to 10 poorest families in each village.

secretary of the village was able to borrow for the second time from the co-operative even if he had an outstanding cooperative loan which was of course against the rules. Table 4.17 further shows that in Charapara in the case of MFs 14.3 per cent of number of loans are from other sources which are the housing loans from the company (the employer) being adjusted against salary. In Harinababi the SFs and MDFs have better access to loans from commercial banks and cooperatives than the MFs.

In Sandhagaon the SFs and MDFs have borrowed only from institutional sources. The PTs and LLs have mainly borrowed from private sources. In the case of PTs 10 per cent of loans are from other sources which is interestingly loans from the *Yubak Sangha* (youth club) in that village. Some young men of higher castes have formed a youth club to which each member contributes a paltry sum of rupees every month and with that fund they organise some village functions or sports events. And to increase their fund they lend it at exorbitant interest rates i.e. 120 per cent per annum, to co-villagers who are in financial need.

In all the villages about 40 to 45 per cent of number of loans are from private sources and about 30 to 40 per cent come under different government programmes. Thus only 15 to 30 per cent of loans can genuinely be called an institutional loan. More importantly private sources still predominate as source of finance for the rural poor specifically for the MFs and the PTs and LLs.

4.3.11.2.2 Distribution of Amount of Loans among

Different Sources

Distribution of amount of loan among different sources according to farmer class is presented in Table 4.18. The table shows that 46.1 per cent of loan amount in Charapara is from private sources and it is 25.8 per cent in Harinababi and 23.1 per cent in Sandhagaon. It is found that in the case of PTs and LLs major proportion of loans is from institutional sources under different government programmes, but from this one should not hastily conclude that the landless poor have access to formal loans. As subsidised loans under government programmes are meant for the poorest of the poor and are aimed at upliftment of the poor, it is natural that they get these loans. But none of the landless class is able to get a loan from a commercial bank or from cooperatives. Consequently, at the hour of their need, the rural poor knock at the door of private moneylenders who in most cases are their employers, lessors or shopkeepers. It is clear in the case of Harinababi and Sandhagaon that the percentage of loan from private sources for the landholding class is significantly low and it decreases with increase in size of holding. In Charapara this percentage is quite high because some of the households have borrowed from their relatives and friends for their daughter s' marriages (see Table 4.19 and Table 4.20).

4.3.11.2.3 Distribution of Private Loans Among Different Sources

The distribution of amount of private loans among different sources (Table 4.19) shows that in all the villages, in the case of the landholding class a major proportion of private loans is from friends and relatives. But for the landless poor there is no well-to-do relative to whom they can turn for financial assistance. As a result, they value their patron-client relationship with the resourceful rich villagers as an insurance against risk. Most of their loans are from cultivators^{and cultivators} with salary income in Charapara and Harinababi. As there is no professional moneylender class, salaried people like school teachers, lecturers, doctors and professional musicians are lending money to the needy. In Sandhagaon, a major amount of loans in the case of landless casual labourers and pure tenants is from shopkeepers. More detailed discussion will follow when discussing linked credit transactions in Chapter VIII.

Thus among private sources of finance, friends and relatives are major sources of finance in Charapara and Harinababi, and shopkeepers are important sources in Sandhagaon. Professional moneylenders as a class are totally absent in all the villages. Traders are also found to be unimportant as a source of finance.

4.3.11.3 Purpose of Borrowing

Data on distribution of amount of loans among

different purposes and percentage borrowed for different purposes according to farmer class are contained in Table 4.20 and Table 4.21 respectively. Table 4.21 reveals that in all the villages percentage of loans for consumption purposes is insignificant. The PTs and landless labourers borrow for consumption marginally. It is a fact that it is very difficult to know exactly the amount of consumption loans as usually the attached labourers and the deficit households take consumption loans in kind from the large or medium farmers in the month of September and October when their stock of paddy is finished and they repay it just after harvest in December and January or in terms of labour. As we conducted the survey in the month of June, the informants had more or less forgotten the amount of loan borrowed in kind as most of those loans had been repaid. But on questioning, the MFs and the PTs and the labourer class reported that it is an understanding between them and their employers and lessors for which the employers/lessors usually advance kind loans at the time of their need, on which no interest rate is charged.

In Charapara in the case of MFs, SFs and MDFs more than 50 per cent of loans is for the purpose of ceremonial expenses mostly for daughter's marriage. For PTs and LLs most of the loans are for small business which are the loans under government poverty alleviating programmes for self-employment like buying rickshaw, sheep, jersey cow, bullock and for frying 'mudhi' (puffed rice). In village Harinababi the highest proportion of loan for MFs, SFs and

MDFs are for the purpose of ceremonial expenses, house building and for cultivation respectively. In the non-irrigated village Sandhagaon in the case of SFs and MDFs all the loans are for cultivation. The major proportion of loan in the case of MFs, PTs and LLs are meant for small business, ceremonial expenses and small business respectively.

In all the villages production loans or loans for cultivation are found to be important than loans for consumption. This finding casts doubt on the applicability of Bhaduri's model to our study villages. In his (1983a) model of agricultural backwardness, Bhaduri assumes that consumption loans by deficit households become an integral part of the exchange mechanism.

4.3.11.4 Extent of Indebtedness

Here an attempt has been made to determine the indebtedness status of the households by subtracting the amount of government subsidy and the amount repaid from the amount borrowed. The result is given in Table 4.22. In Charapara the landed class on an average are more indebted than the landless class. This is because of their better access to credit facilities. But this difference is not so conspicuous in Sandhagaon. And it was observed that whereas the landless class are somehow repaying their loans, the landed class do not care to repay the loans under government employment schemes and pumpset loans as by their influence they can deter punitive actions.

Then we attempt to examine whether there is any association between borrowing and indebtedness of a household with its economic status. For this purpose we calculated the correlation coefficients of total amount borrowed (TOTALBOR) and extent of indebtedness (INDEBT) with total owned land (OLANDT), total asset value (TASSETV) and annual total income (TOTALIN) of households. Results are given in Table 4.23. It is shown that the extent of indebtedness is positively correlated with asset and income variables in the advanced village Charapara, whereas it is negatively correlated in Harinababi and Sandhagaon. The correlation coefficients are also found to be higher and more significant in village Charapara than that of other two villages.

4.3.11.5 Mode of Repayment of Loan

The findings regarding repayment of loans in different modes are summarised in Table 4.24. This table shows that the landholding class mainly repay their loans by income from cultivation and salary. The landless rural poor repay their loans mostly from business (petty) income like income earned by pulling rickshaw, selling milk, hiring out bullock cart (in Sandhagaon) and the like. Also they repay loans from wage income, sometimes in terms of labour on the lender's field, in terms of crop as contracted and also in the worst case by selling asset like a young bullock or homestead land. Different contractual arrangements regarding repayment of loan, and linked loans as percentage

of total private loan, and distribution of private loans according to interest rate charged (implicit and explicit and zero) will be discussed under linked credit contracts in Chapter VIII.

4.3.11.6 Results of Regression Analysis with Respect to Borrowing, Debt Burden and Default Rate

In the estimated regression equations amount of total borrowing, the debt burden and the default ratio are the dependent variables and income is the explanatory variable. Table 4.25 contains the regression results. In Charapara the total borrowing (TOTALBOR) is positively and significantly related with total income (TOTALIN). But debt burden (DEBTBURD) which is measured as the ratio of total borrowing to total income is negatively related with the logarithm of total income (LTINCOME). There is positive association between the default ratio (DEFAULTR i.e. the ratio of indebtedness to total borrowing) and the total income. DEFAULTR and LDEBTBUR (logarithm of DEBTBURD) are negatively related. Thus all regression coefficients are of expected signs and significant.

In Harinababi most of the regression coefficients are found to be not significant. Only DEBTBURD and LTINCOME are negatively and strongly related. This implies that debt burden decreases with increase in income.

In the non-irrigated village Sandhagaon, the relationship between DEBTBURD and LTINCOME is negative and significant. The regression coefficient in the case of

LDEBTBUR as the explanatory variable and DEFAULTR as the dependent variable is estimated to be negative and significant.

Thus the amount of borrowing increases with increase in income. Debt burden decreases with increase in income. Default rate is positively related with income in Charapara and negatively in Harinababi and Sandhagaon. Default ratio and debt burden are negatively related in Charapara and Sandhagaon but positively related in Harinababi.

Now we attempt to enlist our main observations on indebtedness of households in the sample villages. In Charapara and Sandhagaon percentage of indebted households in the case of PTs is significantly higher than that of PLs. But no such difference is observed between PLs as a class and PRTs as a class. Percentage of indebted households decreases with increase in size of holding in Charapara. But in Sandhagaon, the relationship is reverse. With regard to sources of finance, non-institutional or private sources are found to be important sources of finance in all the villages. Specifically, the rural poor like PTs, LLs and MFs do not have access to loans from commercial banks and cooperatives. They primarily rely on private sources like cultivators, salaried people and shopkeepers for their credit needs. In all the villages professional moneylenders are conspicuous in their absence. Trader moneylenders are also unimportant. The MDFs and LFs mainly borrow from institutional sources and from friends and relatives. With respect to purpose of borrowing,

consumption loans are less important than production loans. But PTs and LLs are found to borrow marginally from their lessors and employers in kind which they repay in terms of crop or labour.

4.3.12 Sale of Land

After analyzing one adjustment mechanism of the deficit households at time of financial stringency i.e. the indebtedness status of households, it is prudent to analyze the next harsh alternative i.e. that of selling assets which the households do most reluctantly.

Sale of asset is mainly sale of land in rural areas as land is the primary asset. There are some households which sell land at times of emergency like a daughter's marriage but they also purchase land when they have sufficient savings. Therefore, we have considered both sale and purchase of land by households in the last 30 years to obtain a complete picture of the economic status of the households.

Table 4.26 shows that even the owner cultivator MDFs and LFs sell land to meet the expenses for daughters' marriage. But they are also found to buy land to increase their operational holding. So for the medium and large farmers, sale of land is an interim sale with the hope of buying it back at a later date, not necessarily the same plot. But the landless labourers and the pure tenants sell their homestead land to incur ceremonial expenses like spending on funeral occasion.

Interestingly two MFs in the irrigated villages reported selling land to repay bank loans. This shows that the impersonalised relationship with the government machinery sometimes compels the rural poor to undertake painful adjustment mechanisms. Of course, they could have avoided such adverse consequences if they could have borrowed from a patron. Landed households avoid lending to the poor as the recovery of loan is very difficult because of the social disapproval of any harsh stance taken by them to recover the loan. Of course the large farmers do not hesitate to lend if it is for their own benefit which is hidden behind their strategy of linked transactions.

None of the labourer households in our survey revealed losing owned land due to non-repayment of loan. All of them reported that their ancestors did not have any land. Only one resident in Charapara belonging to higher caste and landless single widow family reported losing land due to non-repayment of loan long ago i.e. about fifty years back, which throws some light on Bhaduri's (1977) explanation of usurious interest rates. This we will discuss in Chapter VIII.

Besides distress sale of land in emergency, sale of land for commercial purposes was also observed in the villages under study. In Charapara a part tenant MF is found to sell land to buy a bullock. Thus, poor peasants are found to borrow, sell land, sell crops to buy bullocks. Sometimes, they also sell bullocks to repay loans. Thus, sale and purchase of bullocks are observed in the sample

villages. Therefore, tenancy as a bullock adjustment mechanism seems to have less relevance. In Harinababi, an owner cultivator MDF sold non-irrigated land to buy irrigated land. An owner cultivator SF in Sandhagaon reported selling land to a company as the land was upland and unsuitable for cultivation. As the land fetched a good price from the company, he decided to sell it. From this it is discernible that rural people are rational and are responsive to the market stimuli. They are ready to take advantage of any gainful economic opportunity.

It is noticed from the sale price of land for different years that there is remarkable appreciation in value of land (see Table 4.26). In Charapara in the year 1970 the price of one acre of irrigated land was Rs.5,000 and it has increased to Rs.31,250 in 1988. In Harinababi it is Rs 42,500 in the year 1990. Price of land varies considerably with respect to quality, soil fertility, irrigation facility and nearness to village road and the like. In Sandhagaon the value of non-irrigated land has increased from Rs 5,000 per acre in 1975 to Rs.15,000 per acre in 1988. As price of land is increasing considerably, everybody wants to hold it unless compelled by extreme adverse circumstances to sell. Thus land transfer through sale is rare in the villages under study. A market for land exists in tenancy.

4.3.13 Purchase of Land

Findings regarding purchase of land are given in Table

4.27 which shows that in the irrigated villages mainly the owner cultivator MDFs and LFs have purchased land. Most of them have some extra income from salary and professional income which enables them to buy land. In the non-irrigated village a part tenant MF and a PT have also purchased land with their salary income. As the village is located near Talcher Thermal Power Station and Talcher Colliery, and Samal irrigation project construction works, some of the labourer class are working there as unskilled workers and they purchase land. Consequently the scheduled castes are found to possess land. Thus other economic forces like alternative employment opportunities do play a role in structuring production relations in a village.

It is to be noted that the sale price of land (Table 4.26) in any particular year is less than the buying price of land in same year (Table 4.27). It may be due to the distress sale of land in emergencies which lowers its price in the market as the buyer is in a position to bargain. Usually in a village the number of potential buyers of a piece of agricultural land offered on sale is countable. Only the cultivators who will be able to cultivate that land will be interested in buying it. In most cases a farmer having land near the saleable land shows interest to buy it and also he must have the resources to purchase. Even in a village there are few cultivators capable of paying the price of land in one instalment. Thus the buyer of the land is in a monopsonist position to dictate the price and the plight of the seller is increased if he is in

need of urgent money.

Thus in our study villages buying and selling of land are infrequent. Sale of land by medium farmers and large farmers to incur expenses on daughters' marriages reveal that they don't have much surplus income or savings. Most of the cultivators who have purchased land reported buying with income from salary and remittances. Thus, income from cultivation alone is not the determinant of class position in the sample villages.

4.3.14 Migration Details

Deficit households no doubt undertake temporary adjustment mechanisms like borrowing and selling assets at the time of paucity of finance, but when financial stringency recurs, the household as a whole has to think of a strategy which will provide a solution to the problem on a permanent basis. That is why some family members prefer to migrate to urban areas in quest of jobs. If they succeed in getting a job, they take up the job even if it involves unskilled labour which they would not have taken up in their native place because of their caste aversion towards manual labour. Thus the impersonalised atmosphere in the urban area widens their feasible choice set and getting employment becomes easier. Not all migration can be explained in this manner as some family members being educated obviously migrate to urban areas to hold white collar jobs. Due to the extended family system they continue to maintain link with their family members in the

village and regularly send money to their parents. The remittances that a household receives help in consolidating one's position in the village.

Detailed information on migration has been collected and is presented in tables from Table 4.28 to Table 4.34. As the emigration from the village has far reaching impact on the production relations observed in the village, it has been studied with utmost care and in detail.

Table 4.28 shows that in Charapara 47 per cent of the households have members who have emigrated from the village. In Harinababi the emigration ratio is 59 per cent. In the non-irrigated village Sandhagaon this ratio is much lower i.e. 24 per cent. Thus in the non-irrigated village the mobility is less due to inadequate knowledge about work opportunities in the outside world. It is found that few residents of this village are in high government posts where they can absorb the other co-villagers by their influence. Moreover, it is located amidst the industrial complexes which makes possible for the villagers to get jobs nearby the village.

A categorywise comparison of the migration ratio reveals that in village Charapara the emigration ratio is the highest for pure lessors(89%) followed by OCs (69%) and 50 per cent for PRTs. And it is the lowest for the landless class. The same gradation is observed in Harinababi. In Sandhagaon the emigration ratio is the same 50 per cent for the PLs and PRTs and 20 per cent for OCs and the lowest (12.5%) for the landless labourers.

Thus in irrigated villages the semi-absentee emigrants lease out their entire land-holdings. Therefore, in the case of PLs the emigration ratio is the highest. PRTs are found to be less mobile than the OCs. In Sandhagaon, there are resident pure lessors. Therefore, the emigration ratio is low in the case of PLs. In Charapara and Sandhagaon the PTs and LLs are found to be quite immobile.

Table 4.29 presents the regression results with migration as the dependent variable. In Charapara the number of members emigrating from a household (MIGR) is positively and significantly related to total owned cultivable land (OLANDT) of the household. Also there is negative and strong association between the ratio of adult members migrating (MIGRRA) and owned land per adult members including the emigrants (OLANDRA). There is positive and significant relation between the ratio of total members migrating (MIGRRAT) and owned land per family member including emigrants (OLANDRAT). Also the caste (CASTE) coefficients are found to be negative and significant. Caste has been entered as a dummy variable with value equal to one if scheduled caste but zero if otherwise. Thus the signs of all the regression coefficients are as expected in the village Charapara.

In the village Harinababi there is weak and positive relationship between MIGR and OLANDT and between MIGRRAT and OLANDRAT. MIGRRA is negatively related to OLANDRA but is not significant. The signs of all the co-efficients are as expected.

In the non-irrigated village Sandhagaon there is strong and positive association ^{between} MIGR and OLANDT. And there is negative strong relation between MIGRRA and OLANDRA. But OLANDRAT and MIGRRAT are negatively associated in contrast to the irrigated villages but not significant.

An analysis of the types of jobs for which the family members have migrated (see Table 4.30) shows that in Charapara most of the OC household emigrants i.e. 63 per cent are employed in managerial and clerical jobs. Managerial jobs include administrative jobs and all class I and class II employees of state government like engineers, doctors, supervisors and superintendents. Clerical jobs refer to class III employees of the state government like teachers, cashiers, clerks. In the case of PRTs all the emigrants are employed in unskilled work. For PLs 78 per cent are engaged in unskilled manual labour. One landless labourer has sent his son to an urban area to work as a hotel boy. In Harinababi 64 per cent of the OC emigrants are engaged in unskilled manual labour. And in the case of PLs cent per cent emigrants are engaged in unskilled manual labour. Most of them are working in the non-government sector. As the residents of Harinababi belong to the middle caste in comparison to higher caste residents of Charapara, they have mainly migrated for unskilled manual work.

In the non-irrigated village Sandhagaon 75 per cent of the PLs have emigrated for skilled work like helper and operator and they are industrially trained. A casual

labourer has migrated to his wife's native place as work is available there. Also it is observed that in the irrigated village Charapara most of landless labourers' daughters after their marriage prefer to come back to this village as work is available here and are settling permanently. Thus there is considerable immigration of labourers to irrigated villages.

An interclass comparison of migration for different jobs (Table 4.31) reveals that most of the MDF and LF emigrants are engaged in managerial and clerical work whereas the MF and SF emigrants are mostly unskilled workers. The landless labourers hesitate to migrate as they do not have the initial sum that is required to start job hunting. Thus the class cleavage is gradually being solidified in this manner. The education level of the emigrants has been given in Table 4.32 and naturally the education level of emigrants tallies with the jobs in which they are engaged.

Then the distance traversed by the emigrants as per farmer class is given in Table 4.33. It is revealed that in the irrigated villages most of the migrants have moved to places which are at a distance of more than 100 kms including Calcutta and distant states like Uttar Pradesh, Punjab, Delhi and Karnataka and even Nepal. But in Sandhagaon most of the emigrants are employed within 50 kms of the village. Thus the residents of Sandhagaon are less mobile than that of irrigated villages.

A villagewise comparison of duration of migration (see

Table 4.34) unfolds that in the advanced village Charapara 36 per cent of the migrants migrated more than fifteen years ago and 39 per cent have migrated within the last 5 years. Those who have migrated within last five years belong to the second generation and are much younger and have migrated mostly for clerical and managerial jobs. In Harinababi and also in Sandhagaon the largest proportion i.e. 38 per cent of the migrants have moved within the last 5 to 10 years. Thus the households in these two villages have been mobile quite later than that of Charapara.

But it is to be noted that in the case of irrigated villages those emigrants who have migrated more than fifteen years ago are the marginal farmers. They did not have sufficient income from cultivation to meet their consumption. That is why they had to migrate mainly to Calcutta. They had to take up unskilled manual jobs like gardener, peon, cook in private sectors. They were low paid and there was no job security. Thus the emigration of marginalised peasantry from Charapara and Harinababi to Calcutta was not due to any pull factor of growth and income but under the push factor of indebtedness, pauperisation and unemployment and as a survival strategy of the last resort. Though the emigrants stayed in urban area, their family members used to stay in the villages. It was quite impossible on their part to maintain their family in urban areas with the meagre salary that they were getting. Thus the neoclassical explanation of migration in terms of benefit (expected income) and cost does not hold

good in this context. According to Marxists crisis occurs when relations of production not only impede the development of productive forces but entail declining living standards and economic stagnation. Thus this migration can be better understood in a Marxist framework in terms of exploitation and as a symptom of feudal crisis.¹⁷ The impact of migration on the village economy will be dealt with where appropriate while studying tenancy and linked transactions.

4.4. SUMMARY AND IMPLICATIONS

In this section we attempt to summarise our main findings with regard to tenancy which have theoretical implications.

Firstly, in all the three study villages all the pure tenants are scheduled castes. Peasantry is more differentiated in the irrigated village Charapara than in Harinababi and Sandhagaon. Caste rigidity is more observed in Charapara.

Secondly, tenants as well as lessors are mostly marginal and small farmers. There is no significant difference in ownership holding between the lessors as a

¹⁷ To explain this in detail, one needs to trace the evolution of property rights in Orissa. During the native Hindu rule, the Maratha rule and the Mughal periods, there was no absolute property rights in land. The cultivating peasantry enjoyed security of tenure on the land they cultivated as long as they paid the required share of the produce to the authority. During the British rule in the year 1804 the zamindars were conferred proprietary rights on land. The zamindars were only the rent collectors in pre-British period. Thus, the actual tillers of land became tenants and the revenue farmers became the de facto owners of land. Thus a marginalised peasantry was created which had adverse effects on Orissan economy in later years.

class and the tenants as a class.

Thirdly, with regard to asset ownership structure, the lessors are not found to be the wealthy, rich and big farmers representing the so-called landlord class. Rather there is no significant difference in asset ownership between the lessor class and the landowning tenant class. But there is ample difference in asset ownership between the part tenants (higher) as a class and the pure tenants as a class. Therefore, tenants should not be considered as a homogeneous class and it is wrong to join together the part tenants and pure tenants under one class i.e. tenants.

Fourthly, with respect to distribution of annual household income, no systematic difference is observed between lessors as a class and part tenants as a class across villages. But income per household in the case of a pure tenant is significantly lower than that of a pure lessor in both Charapara and Sandhagaon.

Fifthly, with respect to sources of income, in the case of pure lessors, the largest source of income is remittances both in Charapara and in Harinababi. But it is salary in Sandhagaon. Thus, in Charapara and Harinababi, the lessors are semi-absentee being in employment in urban areas, In Sandhagaon the lessors are residents in the village but salaried. In the case of part tenants, the greatest component of income is from cultivation in Charapara, small business in Harinababi and from salary in Sandhagaon. In the case of pure tenants, the largest source

of income is wages in Charapara and salary in Sandhagaon. Thus cultivation as a source of income is losing importance.

Sixthly, with regard to indebtedness, in Charapara and Sandhagaon the percentage of indebted households is significantly higher in the case of pure tenants than that of part tenants. Indebted ratio is higher for part tenants than that of pure lessors in Harinababi and Sandhagaon.

More importantly private sources still predominate as source of finance for the rural poor specifically for the marginal farmers, pure tenants and landless labourers.

None of the landless class is able to get a loan from a commercial bank or from cooperatives. Most of their loans are from cultivators^{and cultivators} with salary income in Charapara and Harinababi and from shopkeepers in Sandhagaon. In the absence of developed credit market, they value their patron-client relationship with the resourceful rich villagers as an insurance against risk .

Professional moneylenders as a class are totally absent in all the villages. Traders are also found to be unimportant as a source of finance.

In all the villages production loans or loans for cultivation are found to be more important than loans for consumption.

In Charapara the landed class on an average are more indebted than the landless class. This is because of their better access to credit facilities. But this difference is not so conspicuous in Sandhagaon. And it was observed that

whereas the landless class are somehow repaying its loans, the landed class do not care to repay the institutional loans.

Seventhly, with regard to the land market, sale and purchase of land are infrequent. Nobody sells land unless compelled by extreme adverse circumstances. Sale of land even by medium farmers and large farmers to incur expenses on daughters' marriages reveals that they don't have much surplus income or savings. Excepting one case, no landless households reported losing their land due to non-repayment of loan. Land transfer through sale is rare in the villages under study. A market for land exists in tenancy.

Eighthly, with respect to migration, in irrigated villages in the case of PLs the emigration ratio is the highest. The semi-absentee emigrants lease out their entire land-holdings. PRTs are found to be less mobile than the OCs. In Sandhagaon, there are resident pure lessors. Therefore, the emigration ratio is low in the case of PLs. In Charapara and Sandhagaon the PTs and LLs are found to be quite immobile.

TABLE 4.1

Demographic Statistics
Cuttack, Dhenkanal and Orissa, 1981

Features	CUTTACK DISTRICT	DHENKANAL DISTRICT	ORISSA STATE
Total Population	4,628,800	1,582,787	26,370,271
Decennial Population Growth Rate (1971-81)	20.9	22.3	20.2
Density of Population (per Sq. Km.)	415	146	169
Literacy Rate	45.4	36.9	34.2
% of Urban Population to Total Population	10.3	7.8	11.8
% of Total Population			
Main Workers	27.7	31.5	32.8
Marginal Workers	1.6	5.1	5.3
Non-workers	70.8	63.4	62.0
% of Main Workers			
Cultivators	44.7	46.0	46.9
Agricultural Labourers	23.7	27.1	27.8
Household Industry	3.1	3.4	3.3
Other Workers	28.4	23.6	22.0
% of Scheduled Castes to Total Population	17.7	15.8	14.7
% of Scheduled Tribes to Total Population	3.1	12.3	22.4

Source: Census of India, 1981, Series-16, Part-XIII, District Census Handbook, Part B- Village and Townwise Primary Census Abstract, Cuttack and Dhenkanal.

TABLE 4.2

Selected Socio-Economic Indicators of Three Study Villages

Sl.N Characteristics	CHARAPARA	HARINABABI	SANDHAGAON
1 Total Households	43	22	33
2 Scheduled Caste Households	16 (37)	-	20 (61)
3 Total Population	151	179	234
Adults	95 (63)	103 (58)	126 (54)
Children	56 (37)	76 (42)	108 (46)
4 Avg. Family Size	3.51	8.14	7.09
5 No. of Emigrants	28	21	13
6 Education(Adults)			
Illiterate	7 (7)	13 (13)	28 (22)
Literate	7 (7)	1 (1)	21 (17)
Primary	22 (23)	17 (16)	18 (15)
M.E.	15 (16)	30 (29)	28 (22)
H.S.	27 (29)	32 (31)	23 (18)
Above H.S.	17 (18)	10 (10)	8 (6)
7 Total Owned Area(acres)	93.12	48.78	43.6
Irrigated	51.04 (55)	30.7 (63)	-
Non-irrigated	42.08 (45)	18.08 (37)	43.6
8 Avg. Owned Holding(acres)	5.54	3.61	2.91
9 Area under Tenancy(acres)	18.62	6.12	17.9
10 Total Operational Area(acres)	98.46	52.38	43.62
11 % of Ope. Area under Tenancy	18.9	11.7	41.0
12 Availability of Irrigation	July-Sept,	July-Sept,	-
Perennial Canal Irrigation	Jan, April	Jan, April	-
13 Annual Rainfall	1577 mm.	1577 mm.	1421 mm.
14 Soil Type	Loam, Alluvium	Loam, Alluvium	Lateritic red
15 Cropping Pattern			
Kharif	Paddy	Paddy	Paddy
Rabi	Grams,G.Nut Potato,Jowar	Grams,G.Nut Vegetables, Jute	Potato
Summer	Green Gram	Green Gram	
Autumn	Paddy	Paddy	
16 % of area under HYV Paddy	34.6	24.1	19.4
17 Avg. Yield of Paddy (qtls/acre)	10.3	11.0	6.6
18 Avg. Gross Cropped Area (acres)	6.61	4.39	2.82
19 Avg. Cropping Intensity	1.57	1.56	1.05
20 Avg. Asset Ownership (Rs)	99,902	1,19,823	57,493
21 Avg. Annual Income (Rs)	11,728	16,279	11,750
22 Avg. Annual Consumption (Rs)	8,418	13,295	14,430
23 % of Indebted Households	51.2	40.9	63.6
24 Avg. Indebtedness (Rs)	4,369	3,078	2,514
25 % of loan from Private Source	46.1	25.8	23.1

Note: Figures in parentheses indicate percentages of total.

M.E.- Minor Education, H.S.- Higher Secondary

TABLE 4.3

Distribution Of Households: Farmer Category and Caste

Village\ Category	Caste				Total Percentage	
	khandayat	Karan	Gudia	SC		
CHARAPARA(I)						
OC	13	-	-	-	13	30.2
OT	3	-	-	-	3	7.0
TO	1	-	-	-	1	2.3
PT	-	-	-	5	5	11.6
PL	9	-	-	-	9	20.9
LCL	-	-	-	8	8	18.6
AL	-	-	-	1	1	2.3
FS	-	-	-	2	2	4.7
Others	1	-	-	-	1	2.3
Total	27	-	-	16	43	100.0
HARINABABI(I)						
OC	2	-	12	-	14	63.6
OT	-	-	3	-	3	13.6
TO	-	-	2	-	2	9.1
PL	-	-	3	-	3	13.6
Total	2	-	20	-	22	100.0
SANDHAGAON(NI)						
OC	-	4	-	1	5	15.2
OT	-	3	-	-	3	9.1
TO	-	-	-	1	1	3.0
PT	-	-	-	6	6	18.2
PL	-	5	-	1	6	18.2
LCL	-	-	-	9	9	27.3
Others	-	1	-	2	3	9.1
Total	-	13	-	20	33	100.0
Grand Total	29	13	20	36	98	

Notes: Owner Cultivator(OC), Owner Tenant(OT), Tenant Owner(TO), Pure Tenant(PT), Pure Lessor(PL), Landless Casual Labourer(LCL), Attached Labourer(AL), Farm Servant(FS)

Khandayat and Karan: Upper caste, Gudia: Middle caste, SC: scheduled caste.

TABLE 4.4

Distribution of Owned Landholding
According to Tenancy Status and Farmer Class

Category	GHARAPARA			MARINABABI			SANDHAGAON		
	Number of Households	Owned Area Acres	Avg. Holding Acres	No. of House- holds	Owned Area Acres	Avg. Holding Acres	No. of House- holds	Owned Area Acres	Avg. Holding Acres
Owner Cultivator									
MF	-	-	-	2	3.80	1.90	1	0.24	0.24
SF	2	5.66	2.83	6	20.38	3.40	3	11.00	3.67
MDF	6	42.84	7.14	6	35.98	6.00	1	5.50	5.50
LF	5	68.50	13.70	-	-	-	-	-	-
Total	13	117.00	9.00	14	60.16	4.30	5	16.74	3.35
Owner Tenant									
MF	2	4.24	2.12	1	2.00	2.00	2	3.50	1.75
SF	1	2.72	2.72	1	4.20	4.20	-	-	-
MDF	-	-	-	1	7.00	7.00	1	5.00	5.00
LF	-	-	-	-	-	-	-	-	-
Total	3	6.96	2.32	3	13.20	4.40	3	8.50	2.83
Tenant Owner									
MF	1	1.96	1.96	2	1.92	0.96	1	0.48	0.48
SF	-	-	-	-	-	-	-	-	-
MDF	-	-	-	-	-	-	-	-	-
LF	-	-	-	-	-	-	-	-	-
Total	1	1.96	1.96	2	1.92	0.96	1	0.48	0.48
Pure Lessor									
MF	5	5.48	1.10	3	4.20	1.40	3	4.88	1.63
SF	3	12.76	4.25	-	-	-	1	3.00	3.00
MDF	1	-	8.00	-	-	-	2	10.00	5.00
LF	-	-	-	-	-	-	-	-	-
Total	9	18.24	2.03	3	4.20	1.40	6	17.88	2.98
Grand Total	26	144.16	5.54	22	79.48	3.61	15	43.60	2.91

TABLE 4.5

Distribution of Owned Area According to Farmer Class

Class	CHARAPARA			HARINABABI			SANDHAGAON		
	No. of House-holds	Owned Area Acres	Avg. Holding Acres	No. of House-holds	Owned Area Acres	Avg. Holding Acres	No. of House-holds	Owned Area Acres	Avg. Holding Acres
MF	8 (30.8)	11.68 (8.1)	1.46	8 (36.4)	11.92 (15.0)	1.49	7 (46.7)	9.1 20.9	1.30
SF	6 (23.1)	21.14 (14.7)	3.52	7 (31.8)	24.58 (30.9)	3.51	4 (26.7)	14 (32.1)	3.50
MDF	7 (26.9)	42.84 (29.7)	6.12	7 (31.8)	42.98 (54.1)	6.14	4 (26.7)	20.5 (47.0)	5.13
LF	5 (19.2)	68.5 (47.5)	13.70	- -	- -	-	- -	- -	-
Total	26 (100.0)	144.16 (100.0)	5.54	22 (100.0)	79.48 (100.0)	3.61	15 (100.0)	43.6 (100.0)	2.91

Note: Figures in parentheses indicate percentages of total.

DISTRIBUTION OF OWNED LAND AREA

LORENZ CURVES

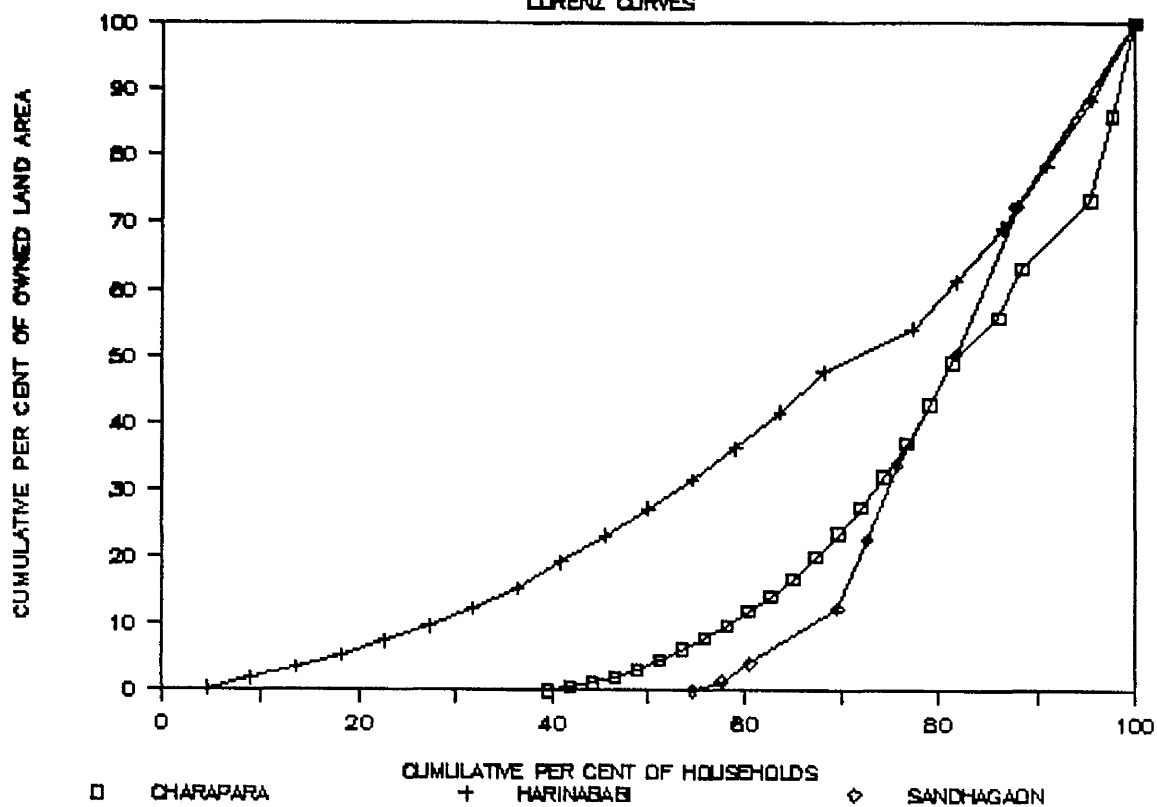


Figure 4.1

DISTRIBUTION OF OPERATED LAND AREA

LORENZ CURVES OF THREE VILLAGES

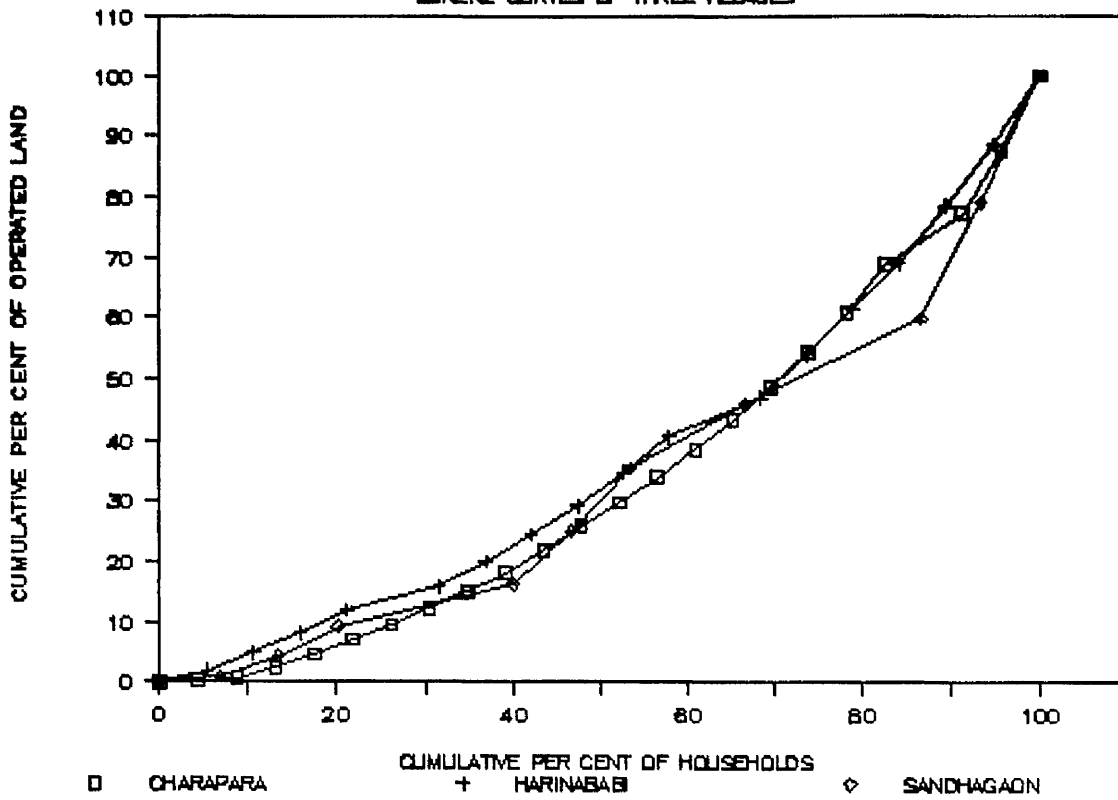


Figure 4.2

TABLE 4.6

Average Land Operated per Household,
 Percentage Distribution of Operational Land
 and Percentage of Operated Land Irrigated
 According to Farmer Class

Village\ Class	No. of Households	Total Land Operated Acres	Operated Land per Household	% of Households	% of Land Operated	% of Land Irrigated
CHARAPARA						
MF	1	0.32	0.32	4.5	0.2	100.0
SF	7	24.70	3.53	31.8	16.2	53.2
MDF	9	60.08	6.68	40.9	39.4	59.6
LF	5	67.54	13.51	22.7	44.2	51.6
Total	22	152.64	6.94	100.0	100.0	55.0
HARINABABI						
MF	2	3.80	1.90	10.5	4.4	79.2
SF	9	31.00	3.44	47.4	35.9	64.2
MDF	8	51.50	6.44	42.1	59.7	54.3
Total	19	86.30	4.54	100.0	100.0	58.7
SANDHAGAON						
MF	5	6.64	1.33	33.3	15.2	-
SF	7	23.48	3.35	46.7	53.8	-
MDF	3	13.50	4.50	20.0	30.9	-
Total	15	43.62	2.91	100.0	100.0	-

TABLE 4.7

Asset Structure of Households									
According to Farmer Category									
Rupees per Household									
Village\	Agri-	Real	Live-	Agri-	Consumer	Gold	Savings	Receiv-	Total
Category	cultural	Estate	stock	cultural	Durables	and		ables	
	Land		Implements			Silver			
CHARAPARA									
OC	168,750	31,385	7,623	246	7,500	12,308	8,000	1,308	237,119
PRT	41,813	22,250	6,725	125	2,250	1,750	3,000	100	78,013
PT	-	2,200	6,000	100	-	-	-	-	8,300
PL	54,667	21,222	2,872	28	2,222	5,778	4,000	722	91,511
LL	-	1,727	1,136	-	82	-	16	-	2,962
Others	-	1,500	2,000	-	-	-	-	-	3,500
Total	66,349	16,733	4,566	103	2,963	5,093	3,539	556	99,902
HARINABABI									
OC	83,250	28,857	5,964	214	4,214	11,643	6,357	7	140,507
PRT	56,700	25,000	6,600	210	2,600	7,800	1,000	240	100,150
PL	24,250	21,000	2,500	-	2,333	6,000	-	-	56,083
Total	69,170	26,909	5,636	184	3,591	10,000	4,273	59	119,823
SANDHAGAON									
OC	53,568	49,210	8,140	1,240	7,500	13,600	-	-	133,258
PRT	35,920	30,550	7,150	1,700	3,550	6,750	-	-	85,620
PT	-	12,017	3,817	400	416	-	-	2,233	18,883
PL	50,667	44,433	2,450	250	4,250	7,167	-	2,000	111,217
LL	-	5,922	756	-	100	-	-	-	6,778
Others	-	13,933	-	-	700	1,000	-	-	15,633
Total	21,682	24,305	3,445	512	2,506	4,273	-	770	57,493

TABLE 4.8

Percentage Distribution of Assets Among Farmer Classes

Village\ Class	% of Total Households	Agl. Land	Real Estate	Live-stock	Agl. Imple-ments	Consumer Durables	Gold and Silver	Savings	Receiv-ables	Total
CHARAPARA										
MF	18.6	7.7	24.5	12.0	6.7	11.8	14.6	16.4	16.3	11.5
SF	14.0	13.9	17.4	16.5	13.5	8.6	14.6	15.1	12.6	14.5
MDF	16.3	33.4	24.6	26.5	41.6	25.9	40.6	32.2	71.1	31.9
LF	11.6	45.0	29.2	22.4	27.0	53.0	30.1	36.1	-	40.2
PT	11.6	-	1.5	15.3	11.2	-	-	-	-	1.0
LL	25.6	-	2.6	6.4	-	0.7	-	0.1	-	0.8
Others	2.3	-	0.2	1.0	-	-	-	0.0	-	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
HARINABABI										
MF	36.4	14.3	25.0	29.2	25.9	24.1	22.7	7.4	92.3	18.2
SF	31.8	30.3	31.4	29.8	32.1	31.6	24.1	26.6	-	29.9
MDF	31.8	55.4	43.6	40.9	42.0	44.3	53.2	66.0	7.7	51.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
SANDHAGAON										
MF	21.2	22.9	31.3	27.1	42.0	38.7	33.3	-	47.2	28.6
SF	12.1	31.3	19.4	28.0	20.1	44.1	25.5	-	-	25.7
MDF	12.1	45.8	28.5	18.8	23.7	10.5	39.0	-	-	34.0
PT	18.2	-	9.0	20.1	14.2	3.0	-	-	52.8	6.0
LL	27.3	-	6.6	6.0	-	1.1	-	-	-	3.2
Others	9.1	-	5.2	-	-	2.5	2.1	-	-	2.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0

TABLE 4.9

Percentage Distribution of Assets Among Different Types
According to Farmer Category

Village\ Category	Agl. Land	Real Estate	Live- stock	Agl. Imple- ments	Consumer Durables	Gold and Silver	Savings	Receiv- ables	Total
CHARAPARA									
OC	71.2	13.2	3.2	0.10	3.2	5.2	3.4	0.55	100.0
PRT	53.6	28.5	8.6	0.16	2.9	2.2	3.8	0.13	100.0
PT	-	26.5	72.3	1.20	-	-	-	-	100.0
PL	59.7	23.2	3.1	0.03	2.4	6.3	4.4	0.79	100.0
LL	-	58.3	38.4	-	2.8	-	0.6	-	100.0
Others	-	42.9	57.1	-	-	-	-	-	100.0
Total	66.4	16.7	4.6	0.10	3.0	5.1	3.5	0.56	100.0
HARINABABI									
OC	59.2	20.5	4.2	0.15	3.0	8.3	4.5	0.01	100.0
PRT	56.6	25.0	6.6	0.21	2.6	7.8	1.0	0.24	100.0
PL	43.2	37.4	4.5	-	4.2	10.7	-	-	100.0
Total	57.7	22.5	4.7	0.15	3.0	8.3	3.6	0.05	100.0
SANDHAGAON									
OC	40.2	36.9	6.1	0.9	5.6	10.2	-	-	100.0
PRT	42.0	35.7	8.4	2.0	4.1	7.9	-	-	100.0
PT	-	63.6	20.2	2.1	2.2	-	-	11.8	100.0
PL	45.6	40.0	2.2	0.2	3.8	6.4	-	1.8	100.0
LL	-	87.4	11.1	-	1.5	-	-	-	100.0
Others	-	89.1	-	-	4.5	6.4	-	-	100.0
Total	37.7	42.3	6.0	0.9	4.4	7.4	-	1.3	100.0

TABLE 4.10

Distribution of Annual Household Income Among Different Sources
According to Farmer Category

Rupees per Household											
Village\ Category	Culti- vation	Imputed Value of Own Labour	Dairy	Poultry	Small Busi- ness	Salary	Wage	Rent	Remitt- ances	Others	Total
CHARAPARA											
OC	7,912	404	1,680	143	1,769	3,538	-	137	6,577	2,308	24,468
PRT	2,417	775	980	-	-	1,500	-	-	900	-	6,573
PT	777	652	600	172	-	-	2,000	-	-	222	4,424
PL	690	-	1,611	78	-	1,822	-	1,402	5,044	222	10,870
LL	-	-	205	57	-	136	2,593	-	109	187	3,287
Others	-	-	2,000	-	-	-	-	-	-	680	2,680
Total	2,852	270	1,146	99	535	1,660	841	335	3,156	834	11,728
HARINABABI											
OC	4,173	326	1,300	-	1,714	2,143	214	17	7,321	643	17,851
PRT	3,125	1,088	2,040	-	8,200	-	-	-	1,200	-	15,653
PL	-	-	2,333	-	-	-	-	815	6,833	-	9,981
Total	3,366	455	1,609	-	2,955	1,364	136	122	5,864	409	16,279
SANDHAGAON											
OC	(1,122)	955	2,440	-	-	18,480	540	-	1,000	-	22,293
PRT	(1,500)	2,821	2,053	-	-	12,000	-	-	1,800	625	17,799
PT	(1,060)	1,227	60	-	-	2,600	993	-	-	1,600	5,421
PL	10	25	1,000	-	3,000	7,900	-	1,750	1,200	1,200	16,085
LL	-	-	-	-	-	-	6,217	-	-	111	6,328
Others	-	-	-	-	-	1,920	450	-	-	4,000	6,370
Total	(543)	714	811	-	545	6,338	303	318	2,283	979	11,750

TABLE 4.11

Percentage Distribution of Income Among Different Sources
According to Farmer Category

Village \ Category	Cultivation	Imputed Value of Own Labour	Dairy	Poultry	Small Business	Salary	Wage	Rent	Remitt- ances	Others	Total
CHARAPARA											
OC	32.3	1.7	6.9	0.6	7.2	14.5	-	0.6	26.9	9.4	100.0
PRT	36.8	11.8	14.9	-	-	22.8	-	-	13.7	-	100.0
PT	17.6	14.7	13.6	3.9	-	-	45.2	-	-	5.0	100.0
PL	6.3	-	14.8	0.7	-	16.8	-	12.9	46.4	2.0	100.0
LL	-	-	6.2	1.7	-	-	78.9	-	3.3	5.7	100.0
Others	-	-	74.6	-	-	-	-	-	-	25.4	100.0
Total	24.3	2.3	9.8	0.8	4.6	14.2	7.2	2.9	26.9	7.1	100.0
HARINABABI											
OC	23.4	1.8	7.3	-	9.6	12.0	1.2	0.1	41.0	3.6	100.0
PRT	20.0	7.0	13.0	-	52.4	-	-	-	7.7	-	100.0
PL	-	-	23.4	-	-	-	-	8.2	68.5	-	100.0
Total	20.7	2.8	9.9	-	18.1	8.4	0.8	0.7	36.0	2.5	100.0
SANDHAGAON											
OC	-5.0	4.3	10.9	-	-	82.9	2.4	-	4.5	-	100.0
PRT	-8.4	15.8	11.5	-	-	67.4	-	-	10.1	3.5	100.0
PT	-19.5	22.6	1.1	-	-	48.0	18.3	-	-	29.5	100.0
PL	0.1	0.2	6.2	-	18.7	49.1	-	10.9	7.5	7.5	100.0
LL	-	-	-	-	-	-	98.2	-	-	1.8	100.0
Others	-	-	-	-	-	30.1	7.1	-	-	62.8	100.0
Total	-4.6	6.1	6.9	-	4.6	53.9	2.6	2.7	19.4	8.3	100.0

TABLE 4.12

Percentage of Households Engaged in Different Sources of Income
According to Farmer Category

Village\ Category	No. of Households	Culti- vation	Imputed Value of Own Labour	Dairy	Poultry	Small Business	Salary	Wage	Rent	Remitt- ances	Others
CHARAPARA											
OC	13	100.0	30.8	100.0	46.2	15.4	23.1	-	-	69.2	7.7
PRT	4	100.0	100.0	50.0	-	-	25.0	-	-	25.0	-
PT	5	100.0	100.0	40.0	60.0	-	-	100.0	-	-	40.0
PL	9	11.1	-	66.7	55.6	-	22.2	-	100.0	77.8	11.1
LL	11	-	-	18.2	36.4	-	18.2	90.9	-	9.1	54.5
Others	1	-	-	100.0	-	-	-	-	-	-	100.0
Total	43	53.5	30.2	60.5	41.9	4.7	18.6	34.9	20.9	41.9	25.6
HARINABABI											
OC	14	100.0	35.7	71.4	-	14.3	14.3	7.1	-	57.1	7.1
PRT	5	100.0	60.0	80.0	-	60.0	-	-	-	20.0	-
PL	3	-	-	100.0	-	-	-	-	100.0	100.0	-
Total	22	86.4	36.4	77.3	-	22.7	9.1	4.5	13.6	54.5	4.5
SANDHAGAON											
OC	5	100.0	80.0	80.0	-	-	80.0	20.0	-	20.0	-
PRT	4	100.0	75.0	75.0	-	-	25.0	-	-	50.0	50.0
PT	6	100.0	100.0	16.7	-	-	33.3	66.7	-	-	33.3
PL	6	16.7	16.7	66.7	-	16.7	50.0	-	100.0	33.3	16.7
LL	7	-	-	-	-	-	-	100.0	-	-	28.6
Others	3	-	-	-	-	-	66.7	33.3	-	-	33.3
Total	31	51.6	45.2	38.7	-	3.2	38.7	41.9	19.4	16.1	25.8

TABLE 4.13

Correlation Coefficient between Owned Land Area
Total Asset Value and Total Annual Income

Variables\ Villages	TOTALIN	OLANDT	TASSETV

CHARAPARA			
(43)			
TOTALIN	1.00		
OLANDT	0.81#	1.00	
TASSETV	0.81#	0.98#	1.00
HARINABABI			
(22)			
TOTALIN	1.00		
OLANDT	0.67#	1.00	
TASSETV	0.70#	0.93#	1.00
SANDHAGAON			
(33)			
TOTALIN	1.00		
OLANDT	0.42*	1.00	
TASSETV	0.62#	0.92#	1.00

Notes: # indicates 0.1% level of significance (1-tailed)

* indicates 1% level of significance (1-tailed)

Figures in parentheses indicate number of cases

TABLE 4.14

Consumption Expenditure per Household and per Capita
According to Farmer Category

Village\ Category	No. of Households	Consumption Expenditure per Household Rs/Annum	Average Consuming Members No.	Consumption Expenditure per Capita Rs/Annum
CHARAPARA				
OC	13	12,406	6.4	1,943
PRT	4	7,763	6.0	1,294
PT	5	8,380	6.4	1,309
PL	9	9,689	5.4	1,780
LL	11	3,593	3.6	988
Others	1	1,000	1.0	1,000
Total	43	8,418	5.3	1,581
HARINABABI				
OC	14	13,514	8.3	1,631
PRT	5	14,540	8.2	1,773
PL	3	10,200	5.3	1,913
Total	22	13,295	7.9	1,691
SANDHAGAON				
OC	5	25,700	9.6	2,677
PRT	4	17,475	8.0	2,184
PT	6	10,617	7.5	1,416
PL	6	12,917	6.5	1,987
LL	7*	9,287	8.3	1,121
Others	3	14,240	5.3	2,670
Total	31	14,430	7.7	1,880

Note: * Number of landless households is 7 instead of 9 due to missing data for two households.

TABLE 4.15

Inequality in Owned Land Area, Total Asset Value,
Total Income and Total Consumption Expenditure

Village\ Variable	Skewness	S.E. of Skewness	Number of Observations
CHARAPARA			
OLANDT	1.42	0.36	43
TASSETV	1.37	0.36	43
TOTALIN	2.06	0.36	43
TOTALCEX	1.29	0.36	43
HARINABABI			
OLANDT	0.67	0.49	22
TASSETV	0.81	0.49	22
TOTALIN	1.02	0.49	22
TOTALCEX	0.32	0.49	22
SANDHAGAON			
OLANDT	1.15	0.41	33
TASSETV	1.01	0.41	33
TOTALIN	1.83	0.41	33
TOTALCEX	2.55	0.41	33

TABLE 4.16

Percentage of Households Indebted and Sources of Finance
According to Farmer Category

Village\ Category	Total No. of Households	No. of Households in Debt	% of Total	No. of Households Borrowing From		
				Institutional Source	Govt. Programs	Private Source
CHARAPARA						
OC	13	4	30.8	3	1	-
PRT	4	2	50.0	1	1	1
PL	9	5	55.6	2	2	2
PT	5	4	80.0	-	2	4
LL	11	6	54.5	-	5	4
Others	1	1	100.0	-	-	1
Total	43	22	51.2	7	11	12
				(31.8)	(50.0)	(54.5)
HARINABABI						
OC	14	4	28.6	2	1	1
PRT	5	5	100.0	1	2	2
PL	3	-	-	-	-	-
Total	22	9	40.9	3	3	3
				(33.3)	(33.3)	(33.3)
SANDHAGAON						
OC	5	3	60.0	2	1	-
PRT	4	2	50.0	-	2	1
PL	6	2	33.3	1	1	-
PT	6	6	100.0	-	2	6
LL	9	7	77.8	-	4	6
Others	3	2	66.7	-	2	1
Total	33	21	63.6	3	12	14
				(14.3)	(57.1)	(66.7)

Note: Figures in parentheses indicate percentages of total indebted households.

TABLE 4.17

Percentage of Households in Debt and Sources of Finance
According to Farmer Class

Village\ Class	Total No. of Households	No. of Households in Debt	% of Total	Number of Loans (percentage)					
				Commercial Bank	Co-operative	Under Govt. Program	Private Sources	Others	Total
CHARAPARA									
MF	8	5	62.5	-	-	42.9	42.9	14.3	100.0
SF	6	3	50.0	20.0	40.0	20.0	20.0	-	100.0
MDF	7	4	57.1	25.0	50.0	-	25.0	-	100.0
LF	5	1	20.0	-	-	100.0	-	-	100.0
PT	5	4	80.0	-	-	33.3	66.7	-	100.0
LL	11	7	63.6	-	-	50.0	50.0	-	100.0
Others	1	1	100.0	-	-	-	100.0	-	100.0
Total	43	25	58.1	5.9	11.8	35.3	44.1	2.9	100.0
HARINABABI									
MF	8	4	50.0	20.0	-	40.0	40.0	-	100.0
SF	7	2	28.6	-	50.0	-	50.0	-	100.0
MDF	7	3	42.9	33.3	-	33.3	33.3	-	100.0
Total	22	9	40.9	20.0	10.0	30.0	40.0	-	100.0
SANDHAGAON									
MF	7	3	42.9	-	-	75.0	25.0	0.0	100.0
SF	4	2	50.0	50.0	50.0	-	-	-	100.0
MDF	4	2	50.0	50.0	50.0	-	-	-	100.0
PT	6	6	100.0	-	-	25.0	75.0	-	100.0
LL	9	6	66.7	-	-	40.0	50.0	10.0	100.0
Others	3	2	66.7	-	-	66.7	33.3	-	100.0
Total	33	21	63.6	6.9	6.9	37.9	44.8	3.4	100.0

TABLE 4.18

Distribution of Amount of Loan among Different Sources of Finance
According to Farmer Class

Village\ Class	No. of Indebted House-holds	Total Amount Borrowed Rs	Commercial Bank Rs	Co-operative Rs	Under Govt. Programme Rs	Others Rs	Institutional Source Rs	% of Total	Private Source Rs	% of Total
CHARAPARA										
MF	5	42,650	-	-	10,850	10,000	20,850	48.9	21,800	51.1
SF	3	29,300	-	3,000	3,300	-	6,300	21.5	23,000	78.5
MDF	4	26,000	2,000	7,000	-	-	9,000	34.6	17,000	65.4
LF	1	25,000	-	-	25,000	-	25,000	100.0	-	-
PT	4	5,400	-	-	4,000	-	4,000	74.1	1,400	25.9
LL	7	12,950	-	-	11,000	-	11,000	84.9	1,950	15.1
Others	1	40	-	-	-	-	-	-	40	100.0
Total	25	141,340	2,000	10,000	54,150	10,000	76,150	53.9	65,190	46.1
HARINABABI										
MF	4	22,200	3,000	-	9,000	-	12,000	54.1	10,200	45.9
SF	2	8,400	-	8,000	-	-	8,000	95.2	400	4.8
MDF	3	13,200	4,000	-	8,500	-	12,500	94.7	700	5.3
Total	9	43,800	7,000	8,000	17,500	-	32,500	74.2	11,300	25.8
SANDHAGAON										
MF	3	35,900	-	-	32,900	-	32,900	91.6	3,000	8.4
SF	2	17,500	15,000	2,500	-	-	17,500	100.0	-	0.0
MDF	2	5,600	3,000	2,600	-	-	5,600	100.0	-	0.0
PT	6	18,300	-	-	6,000	-	6,000	32.8	12,300	67.2
LL	6	20,850	-	-	14,100	200	14,300	68.6	6,550	31.4
Others	2	9,500	-	-	6,500	-	6,500	68.4	3,000	31.6
Total	21	107,650	18,000	5,100	59,500	200	82,800	76.9	24,850	23.1

TABLE 4.19

Distribution of Amount of Private Loan among Different Sources
According to Farmer Class

Village\ Category	Cultivator Rs	Gultivator and Salaried Rs	Shopkeeper Rs	Trader Rs	Relatives\ Friends Rs	Others Rs	Total Private Loan Rs
CHARAPARA							
MF	800	6,000	-	-	15,000	-	21,800
SF	-	3,000	-	-	20,000	-	23,000
MDF	-	-	-	-	17,000	-	17,000
LF	-	-	-	-	-	-	-
PT	-	1,100	-	-	300	-	1,400
LL	500	1,350	-	-	100	-	1,950
Others	-	-	-	-	-	40	40
Total	1,300	11,450	-	-	52,400	40	65,190
	(2.0)	(17.6)	-	-	(80.4)	(0.1)	(100.0)
HARINABABI							
MF	-	-	-	200	10,000	-	10,200
SF	400	-	-	-	-	-	400
MDF	700	-	-	-	-	-	700
Total	1,100	-	-	200	10,000	-	11,300
	(9.7)	-	-	(1.8)	(88.5)	-	(100.0)
SANDHAGAON							
MF	-	-	-	-	3,000	-	3,000
SF	-	-	-	-	-	-	-
MDF	-	-	-	-	-	-	-
PT	800	1,500	10,000	-	-	-	12,300
LL	1,650	200	1,200	-	-	3,500	6,550
Others	-	-	3,000	-	-	-	3,000
Total	2,450	1,700	14,200	-	3,000	3,500	24,850
	(9.9)	(6.8)	(57.1)	-	(12.1)	(14.1)	(100.0)

Note: Figures in parentheses indicate percentages of total.

TABLE 4.20

Distribution of Amount of Loan for Different Purposes
According to Farmer Class

Village\ Class	No. of Indebted Households	Cultivation Rs	Consumption Rs	Small Ceremonial		House Building Rs	Total Rs
				Business Rs	Rs		
CHARAPARA							
MF	5	800	-	10,850	21,000	10,000	42,650
SF	3	3,000	3,000	3,300	20,000	-	29,300
MDF	4	9,000	-	-	17,000	-	26,000
LF	1	-	-	25,000	-	-	25,000
PT	4	-	200	4,000	1,200	-	5,400
LL	7	-	1,950	11,000	-	-	12,950
Others	1	-	40	-	-	-	40
Total	25	12,800	5,190	54,150	59,200	10,000	141,340
		(9.1)	(3.7)	(38.3)	(41.9)	(7.1)	(100.0)
HARINABABI							
MF	4	200	-	9,000	13,000	-	22,200
SF	2	400	-	-	-	8,000	8,400
MDF	3	9,200	-	-	4,000	-	13,200
Total	9	9,800	-	9,000	17,000	8,000	43,800
		(22.4)	-	(20.5)	(38.8)	(18.3)	(100.0)
SANDHAGAON							
MF	3	3,000	-	32,900	-	-	35,900
SF	2	17,500	-	-	-	-	17,500
MDF	2	5,600	-	-	-	-	5,600
PT	6	4,800	300	3,000	10,200	-	18,300
LL	6	-	350	19,100	1,400	-	20,850
Others	2	-	-	6,500	3,000	-	9,500
Total	21	30,900	650	61,500	14,600	-	107,650
		(28.7)	(0.6)	(57.1)	(13.6)	-	(100.0)

Note: Figures in parentheses indicate percentages of total.

TABLE 4.21

Percentage Distribution of Amount of Loans for Different Purposes
According to Farmer Class

Village\ Category	Cultivation	Consumption	Small Business	Ceremonial	House Building	Total
CHARAPARA						
MF	1.9	-	25.4	49.2	23.4	100.0
SF	10.2	10.2	11.3	68.3	-	100.0
MDF	34.6	-	-	65.4	-	100.0
LF	-	-	100.0	-	-	100.0
PT	-	3.7	74.1	22.2	-	100.0
LL	-	15.1	84.9	-	-	100.0
Others	-	100.0	-	-	-	100.0
Total	9.1	3.7	38.3	41.9	7.1	100.0
HARINABABI						
MF	0.9	-	40.5	58.6	-	100.0
SF	4.8	-	-	-	95.2	100.0
MDF	69.7	-	-	30.3	-	100.0
Total	22.4	-	20.5	38.8	18.3	100.0
SANDHAGAON						
MF	8.4	-	91.6	-	-	100.0
SF	100.0	-	-	-	-	100.0
MDF	100.0	-	-	-	-	100.0
PT	26.2	1.6	16.4	55.7	-	100.0
LL	-	1.7	91.6	6.7	-	100.0
Others	-	-	68.4	31.6	-	100.0
Total	28.7	0.6	57.1	13.6	-	100.0

TABLE 4.22

Extent of Indebtedness of Households According to Farmer Class
Amount Borrowed, Amount of Govt. Subsidy, Amount Repaid

Village\ Class	No. of Households in Debt	Total Amount of Amount Borrowed Rs	Govt. Subsidy Rs	Amount Repaid Rs	Extent of Indebtedness Rs	Indebtedness per Household Rs
CHARAPARA						
MF	5	42,650	3,617	4,850	34,183	6,837
SF	3	29,300	1,100	500	27,700	9,233
MDF	4	26,000	-	500	25,500	6,375
LF	1	25,000	6,000	500	18,500	18,500
PT	4	5,400	3,000	1,600	800	200
LL	7	12,950	8,250	2,200	2,500	357
Others	1	40	-	-	40	40
Total	25	141,340	21,967	10,150	109,223	4,369
HARINABABI						
MF	4	22,200	3,000	1,300	17,900	4,475
SF	2	8,400	-	4,000	4,400	2,200
MDF	3	13,200	2,100	5,700	5,400	1,800
Total	9	43,800	5,100	11,000	27,700	3,078
SANDHAGAON						
MF	3	35,900	3,367	20,800	11,733	3,911
SF	2	17,500	5,000	7,500	5,000	2,500
MDF	2	5,600	-	600	5,000	2,500
PT	6	18,300	3,000	-	15,300	2,550
LL	6	20,850	5,467	5,450	9,933	1,656
Others	2	9,500	2,667	1,000	5,833	2,917
Total	21	107,650	19,501	35,350	52,799	2,514

TABLE 4.23

Correlation Coefficient of Amount Borrowed and
Extent of Indebtedness with Owned Land Area,
Total Asset Value and Total Annual Income

Variables\ Villages	OLANDT	TASSETV	TOTALIN
CHARAPARA (43)			
TOTALBOR	0.16	0.18	0.42*
INDEBT	0.19	0.20***	0.42*
HARINABABI (22)			
TOTALBOR	-0.12	-0.11	-0.12
INDEBT	-0.16	-0.15	-0.17
SANDHAGAON (33)			
TOTALBOR	0.03	0.15	0.18
INDEBT	-0.05	-0.05	-0.06

Notes: * indicates 1% level of significance (1-tailed)
*** indicates 10% level of significance (1-tailed)
Figures in parentheses indicate number of cases

TABLE 4.24

Mode of Repayment of Loan
According to Farmer Class

(in Rupees)

Village\ Class	Total Amount Repaid	From Farm Income	From Salary Income	From Business Income	From Wage Income	In Terms of Crop	In Terms of Labour	By Selling Asset
CHARAPARA								
MF	4,850	1,500	3,350	-	-	-	-	-
SF	500	-	500	-	-	-	-	-
MDF	500	-	500	-	-	-	-	-
LF	500	-	-	500	-	-	-	-
PT	1,600	-	-	1,200	400	-	-	-
LL	2,200	-	-	600	400	-	500	700
Others	-	-	-	-	-	-	-	-
Total	10,150	1,500	4,350	2,300	800	-	500	700
	(100.0)	(14.8)	(42.9)	(22.7)	(7.9)	-	(4.9)	(6.9)
HARINABABI								
MF	1,300	-	-	1,100	-	200	-	-
SF	4,000	-	4,000	-	-	-	-	-
MDF	5,700	1,700	4,000	-	-	-	-	-
Total	11,000	1,700	8,000	1,100	-	200	-	-
	(100.0)	(15.5)	(72.7)	(10.0)	-	(1.8)	-	-
SANDHAGAON								
MF	20,800	-	-	20,800	-	-	-	-
SF	7,500	1,000	6,500	-	-	-	-	-
MDF	600	-	600	-	-	-	-	-
PT	-	-	-	-	-	-	-	-
LL	5,450	-	-	4,000	150	-	-	1,300
Others	1,000	-	-	1,000	-	-	-	-
Total	35,350	1,000	7,100	25,800	150	-	-	1,300
	(100.0)	(2.8)	(20.1)	(73.0)	(0.4)	-	-	(3.7)

Note: Figures in parentheses indicate percentages of total.

TABLE 4.25

Results of Least-Squares Regression Analysis
Borrowing, Debt Burden and Default Rate

Village	Dependent Variable	Explanatory Variables	B	S.E.(B)	T-Value	Sig(T)	R Square	F-Value (k-1,n-k d.f.)	Sig(F)
CHARAPARA	TOTALBOR	TOTALIN	0.20	0.068	2.94	0.005	0.17	8.66	0.005
		Constant	971.61	1143.530	0.85	0.400			
	DEBTBURD	LTINCOME	-1.07	0.708	-1.50	0.150	0.09	2.26	0.146
		Constant	4.90	2.710	1.80	0.084			
	DEFAULTR	LTINCOME	0.40	0.178	2.25	0.034	0.18	5.06	0.034
		Constant	-0.84	0.683	-1.23	0.231			
	DEFAULTR	LDEBTBUR	-0.21	0.111	-1.85	0.078	0.13	3.40	0.078
		Constant	0.60	0.086	6.98	0.000			
HARINABABI	TOTALBOR	TOTALIN	-0.04	0.077	-0.54	0.594	0.02	0.29	0.594
		Constant	2666.11	1432.527	1.86	0.078			
	DEBTBURD	LTINCOME	-1.04	0.326	-3.20	0.015	0.59	10.22	0.015
		Constant	4.72	1.324	3.57	0.009			
	DEFAULTR	LTINCOME	-0.10	0.443	-0.23	0.826	0.01	0.05	0.830
		Constant	1.04	1.804	0.58	0.581			
	DEFAULTR	LDEBTBUR	0.27	0.314	0.85	0.425	0.09	0.72	0.425
		Constant	0.50	0.206	2.42	0.050			
SANDHAGAON	TOTALBOR	TOTALIN	0.08	0.080	1.00	0.324	0.03	1.00	0.324
		Constant	2320.64	1311.400	1.77	0.087			
	DEBTBURD	LTINCOME	-1.29	0.503	-2.57	0.019	0.26	6.62	0.019
		Constant	5.72	1.891	3.03	0.007			
	DEFAULTR	LTINCOME	-0.15	0.225	-0.68	0.506	0.02	0.46	0.506
		Constant	1.20	0.845	1.42	0.172			
	DEFAULTR	LDEBTBUR	-0.31	0.156	-1.98	0.063	0.17	3.90	0.063
		Constant	0.54	0.090	6.02	0.000			

TABLE 4.26

Sale of Land (Type and Acres) and Cause of Sale
According to Farmer Category and Class

Village\ Category	Sl.No.	Farmer Class	Area Sold		Value		Area Sold		Value		Year Sold	Cause of Sale	Area Pur-chased Acres
			I Acres	Rs/Acre	NI Acres	Rs/Acre	Homestead Acres	Rs/Acre					
CHARAPARA													
OC	1	SF	0.20	20,000	-	-	-	-	-	-	1980	d. marriage	-
OC	2	MDF	-	-	0.48	2,000	-	-	-	-	1975	f.difficulty	0.28
	2	MDF	0.16	5,000	-	-	-	-	-	-	1970	d. marriage	-
OC	3	MDF	0.08	31,250	-	-	-	-	-	-	1988	d. marriage	2.50
OC	4	LF	0.40	12,500	-	-	-	-	-	-	1986	d. marriage	-
	4	LF	0.80	15,000	-	-	-	-	-	-	1986	d. marriage	-
	4	LF	0.28	17,500	-	-	-	-	-	-	1986	d. marriage	-
PRT	5	MF	0.10	19,000	-	-	-	-	-	-	1986	repay ERRP loan	-
PRT	6	MF	0.12	5,000	-	-	-	-	-	-	1965	buy bullock	-
PRT	7	MF	-	-	-	-	0.10	50,000	-	-	1986	d. marriage	-
PT	8	-	-	-	-	-	0.02	10,000	-	-	1980	mother's funeral	-
AL	9	-	-	-	-	-	0.04	5,000	-	-	1965	father's funeral	-
Total	9		2.14		0.48		0.16						2.78
HARINABABI													
OC	1	MF	0.08	28,750	-	-	-	-	-	-	1986	d. marriage	-
OC	2	MDF	-	-	0.12	42,500	-	-	-	-	1990	buy I land	0.32
PL	3	MF	0.24	7,500	-	-	-	-	-	-	1980	repay bank loan	-
Total	3		0.32		0.12		-						0.32
SANDHAGAON													
OC	1	SF	-	-	1.00	5,000	-	-	-	-	1975	upland	2.00
PL	2	MF	-	-	0.60	15,000	-	-	-	-	1988	d. marriage	-
PL	3	MDF	-	-	2.00	5,000	-	-	-	-	1985	d. marriage	-
Total	3		-		3.60		-						2.00

Notes: I stands for irrigated and NI stands for non-irrigated. D.marriage refers to daughter's marriage and f.difficulty refers to financial difficulty.

TABLE 4.27

Purchase of Land: Type, Area, Price and Year Bought
According to Farmer Category and Class

Village\ Category	Sl. No.	Farmer Class	Area Bought		Price		Year Bought	Area Sold Acres
			I Acres	Rs/Acre	NI Acres	Rs/Acre		
CHARAPARA								
OC	1	MDF	0.28	12,500	-	-	1979	0.64
OC	2	MDF	0.12	20,000	-	-	1987	-
OC	3	MDF	2.50	16,000	-	-	1984	0.08
OC	4	LF	0.52	20,000	-	-	1972	-
	4	LF	0.40	25,000	-	-	1975	-
	4	LF	0.32	27,500	-	-	1978	-
	4	LF	0.44	30,000	-	-	1984	-
	4	LF	0.28	42,500	-	-	1985	-
OC	5	LF	-	-	0.48	8,750	1976	-
	5	LF	0.80	20,000	-	-	1978	-
	5	LF	1.00	25,000	-	-	1979	-
TOTAL	5		6.66		0.48			0.72
HARINABABI								
OC	1	MDF	0.20	27,500	-	-	1982	-
OC	2	MDF	0.32	13,750	-	-	1989	0.12
PRT	3	MF	0.48	12,500	-	-	1980	-
Total			1.00		-			0.12
SANDHAGAON								
OC	1	SF	-	-	0.20	30,000	1987	-
OC	2	SF	-	-	2.00	13,500	1978	1.00
OC	3	MDF	-	-	1.50	24,667	1975-90	-
PRT	4	MF	-	-	0.04	2,750	1970	-
PT	5		-	-	0.40	3,500	1963	-
PL	6	MF	-	-	0.48	37,500	1987	-
Total	6		-		4.62			1.00

Notes: I and NI stand for irrigated and non-irrigated respectively.

TABLE 4.28

Number of Emigrants per Household
According to Farmer Category

Village\ Category	Total No. of House- holds	No. of holds with Members Emigrating	% of Total	Total No. of Emigrants	No. of Emigrants per Household	No. of Households with Emigrants			Head is Emigrant No. of Households
						1	2	Plus 2	
CHARAPARA									
OC	13	9	69.2	16	1.78	5	2	2	1
PRT	4	2	50.0	2	1.00	2	-	-	-
PT	5	-	-	-	-	-	-	-	-
PL	9	8	88.9	9	1.13	7	1	-	7
LL	11	1	9.1	1	1.00	1	-	-	-
Others	1	-	-	-	-	-	-	-	-
Total	43	20	46.5	28	1.40	15	3	2	8
HARINABABI									
OC	14	9	64.3	17	1.89	4	3	2	1
PRT	5	1	20.0	1	1.00	1	-	-	1
PL	3	3	100.0	3	1.00	3	-	-	3
Total	22	13	59.1	21	1.62	8	3	2	5
SANDHAGAON									
OC	5	1	20.0	1	1.00	1	-	-	-
PRT	4	2	50.0	6	3.00	-	1	1	-
PT	7	-	-	-	-	-	-	-	-
PL	6	3	50.0	4	1.33	2	1	-	3
LL	8	1	12.5	1	1.00	1	-	-	-
Others	3	1	33.3	1	1.00	1	-	-	1
Total	33	8	24.2	13	1.63	5	2	1	4

TABLE 4.29

Results of Least-Squares Regression Analysis
Migration and Land Ownership
All Households

Village	Dependent Variable	Explanatory Variables	B	S.E.(B)	T-Value	Sig(T)	R Square	F-Value (k-1,n-k d.f.)	Sig(F)	
CHARAPARA	MIGR	OLANDT	0.14	0.026	5.62	0.000	0.43	31.56	0.000	
		Constant	0.19	0.148	1.26	0.214		(1,41)		
	MIGRRA	OLANDRA	-0.04	0.019	-1.94	0.060	0.44	15.17	0.000	
		CASTE	-0.46	0.084	-5.43	0.000		(2,38)		
		Constant	0.46	0.061	7.45	0.000				
	MIGRRAT	OLANDRAT	0.03	0.022	1.29	0.205	0.40	13.06	0.000	
		CASTE	-0.14	0.039	-3.54	0.001		(2,40)		
		Constant	0.14	0.029	4.79	0.000				
	HARINABABI	MIGR	OLANDT	0.13	0.102	1.25	0.228	0.07	1.55	0.228
Constant			0.49	0.441	1.10	0.285	(1,20)			
MIGRRA		OLANDRA	-0.03	0.099	-0.34	0.739	0.006	0.11	0.739	
		Constant	0.33	0.141	2.37	0.028		(1,20)		
MIGRRAT		OLANDRAT	0.07	0.115	0.63	0.539	0.02	0.39	0.539	
		Constant	0.08	0.051	1.47	0.156		(1,20)		
SANDHAGAON		MIGR	OLANDT	0.14	0.079	1.79	0.083	0.09	3.20	0.083
			Constant	0.21	0.179	1.16	0.255		(1,31)	
		MIGRRA	OLANDRA	-0.07	0.035	-2.03	0.052	0.27	5.54	0.009
	CASTE		-0.25	0.074	-3.33	0.002	(2,30)			
	Constant		0.28	0.066	4.26	0.000				
	MIGRRAT	OLANDRAT	-0.11	0.139	-0.79	0.435	0.14	2.50	0.099	
		CASTE	-0.13	0.065	-1.95	0.060		(2,30)		
		Constant	0.14	0.063	2.25	0.031				

TABLE 4.30

Percentage of Emigrants and Type of Job
According to Farmer Category

Village\ Category	No. of Emigrants	Govt. or Semi-Govt. Job				Purely Private Sector Job				Self Employed
		Man-gerial	Cleri-cal	Skilled Worker	Unskilled Worker	Man-gerial	Cleri-cal	Skilled Worker	Unskilled Worker	
CHARAPARA										
OC	16	18.8	25.0	6.3	-	12.5	6.3	-	31.3	-
PRT	2	-	-	-	50.0	-	-	-	50.0	-
PL	9	-	22.2	-	11.1	-	-	-	66.7	-
LL	1	-	-	-	-	-	-	-	100.0	-
Total	28	10.7	21.4	3.6	7.1	7.1	3.6	0.0	46.4	0.0
HARINABABI										
OC	17	-	11.8	5.9	23.5	5.9	5.9	-	41.2	5.9
PRT	1	-	-	-	-	-	-	-	100.0	-
PL	3	-	-	-	-	-	-	-	100.0	-
Total	21	0.0	9.5	4.8	19.0	4.8	4.8	0.0	52.4	4.8
SANDHAGAON										
OC	1	-	100.0	-	-	-	-	-	-	-
PRT	6	16.7	-	-	16.7	-	16.7	16.7	16.7	16.7
PL	4	-	-	75.0	25.0	-	-	-	-	-
LL	1	-	-	-	-	-	-	-	-	100.0
Others	1	-	100.0	-	-	-	-	-	-	-
Total	13	7.7	15.4	23.1	15.4	0.0	7.7	7.7	7.7	15.4

TABLE 4.31

Percentage of Emigrants and Type of Job
According to Farmer Class

Village\ Class	No. of Emigrants	Govt. or Semi-Govt. Job				Purely Private Sector Job				Self Employed
		Man-gerial	Cleri-cal	Skilled Worker	Unskilled Worker	Man-gerial	Cleri-cal	Skilled Worker	Unskilled Worker	
MF	7	-	-	-	28.6	-	-	-	71.4	-
SF	4	-	50.0	-	-	-	-	-	50.0	-
MDF	7	-	-	-	-	14.3	14.3	71.4	-	-
LF	9	33.3	44.4	11.1	-	11.1	-	-	-	-
LCL	*1	-	-	-	-	-	-	-	100.0	-
Total	28	10.7	21.4	3.6	7.1	7.1	3.6	17.9	28.6	0.0
HARINABABI										
MF	4	-	-	-	-	-	-	-	100.0	-
SF	7	-	28.6	14.3	14.3	-	-	-	28.6	14.3
MDF	10	-	-	-	30.0	10.0	10.0	-	50.0	-
Total	21	0.0	9.5	4.8	19.0	4.8	4.8	0.0	52.4	4.8
SANDHAGAON										
MF	6	16.7	-	16.7	33.3	-	16.7	-	-	16.7
SF	2	-	50.0	50.0	-	-	-	-	-	-
MDF	3	-	-	33.3	-	-	-	33.3	33.3	-
LCL	**1	-	-	-	-	-	-	-	-	100.0
Others	1	-	100.0	-	-	-	-	-	-	-
Total	13	7.7	15.4	23.1	15.4	0.0	7.7	7.7	7.7	15.4

Notes: *He has become a hotel boy in urban area.

**He has migrated to his wife's native place and is a casual labourer there.

TABLE 4.32

Percentage of Emigrants and Level of Education
According to Farmer Category

Village\ Category Migrants	No. of Migrants	Level of Education(No. of Migrants)					
		Illite- rate	Minor	Secon- dary	Graduate	ITI Training	AMIE\ Engineering
CHARAPARA							
OC	16	-	-	37.5	37.5	12.5	12.5
PRT	2	-	50.0	50.0	-	-	-
PL	9	-	33.3	55.6	11.1	-	-
LL	1	100.0	-	-	-	-	-
Total	28	3.6	14.3	42.9	25.0	7.1	7.1
HARINABABI							
OC	17	-	23.5	47.1	29.4	-	-
PRT	1	-	100.0	-	-	-	-
PL	3	-	100.0	-	-	-	-
Total	21	0.0	38.1	38.1	23.8	0.0	0.0
SANDHAGAON							
OC	1	-	-	100.0	-	-	-
PRT	6	-	16.7	50.0	-	16.7	16.7
PL	4	-	-	25.0	-	75.0	-
LL	1	100.0	-	-	-	-	-
Others	1	-	-	-	100.0	-	-
Total	13	7.7	7.7	38.5	7.7	30.8	7.7

Notes: ITI refers to Industrial Training Institute and
AMIE refers to Associate Member of Institute of Engineers.

TABLE 4.33

Percentage of Emigrants and Distance Traversed
According to Farmer Class

Category	No. of Emigrants	0 -50 Kms	50-100 Kms	Above 100 Kms	Neighbour State	Distant State
CHARAPARA						
MF	7	-	14.3	28.6	42.9	14.3
SF	4	-	-	75.0	25.0	-
MDF	7	14.3	-	28.6	28.6	28.6
LF	9	33.3	11.1	44.4	-	11.1
LL	1	-	-	100.0	-	0.0
Total	28	14.3	7.1	42.9	21.4	14.3
HARINABABI						
MF	4	-	-	-	100.0	-
SF	7	-	14.3	42.9	-	42.9
MDF	10	10.0	20.0	30.0	20.0	20.0
Total	21	4.8	14.3	28.6	28.6	23.8
SANDHAGAON						
MF	6	66.7	-	33.3	-	-
SF	2	-	50.0	-	-	50.0
MDF	3	33.3	-	66.7	-	-
LL	1	100.0	-	-	-	-
Others	1	-	-	100.0	-	-
Total	13	46.2	7.7	38.5	0.0	7.7

TABLE 4.34

Percentage of Emigrants and Duration of Emigration
According to Farmer Class

Village\ Class	No. of Emigrants	0-5 Years	5-10 Years	10-15 Years	Above 15 Years
CHARAPARA					
MF	7	28.6	-	14.3	57.1
SF	4	25.0	50.0	-	25.0
MDF	7	71.4	14.3	-	14.3
LF	9	22.2	22.2	11.1	44.4
LL	1	100.0	-	-	-
Total	28	39.3	17.9	7.1	35.7
HARINABABI					
MF	4	-	-	50.0	50.0
SF	7	-	57.1	28.6	14.3
MDF	10	30.0	40.0	20.0	10.0
Total	21	14.3	38.1	28.6	19.0
SANDHAGAON					
MF	6	33.3	16.7	16.7	33.3
SF	2	-	-	50.0	50.0
MDF	3	-	66.7	-	33.3
LL	1	-	100.0	-	-
Others	1	-	100.0	-	-
Total	13	15.4	38.5	15.4	30.8

CHAPTER V

CHARACTERISTICS OF FARM ECONOMY

IN THREE STUDY VILLAGES:

IN RELATION TO OWNERSHIP, TENANCY AND 'DEGREE OF TENANCY'

5.1 INTRODUCTION

Having established the village profile and identified the socio-economic characteristics of the households in relation to ownership, tenancy and 'degree of tenancy', now one is in a position to consider the farming practices followed in the villages which are to a large extent correlated to these features. The characteristics of farm economy under study include the cropping pattern, cropping intensity, seed variety, crop yield, cost of cultivation, net income and finally sale of crop. These characteristics are compared with respect to ownership, tenancy and 'degree of tenancy' and differences are highlighted.

5.2 CROPPING PATTERN

In the irrigated villages Charapara and Harinababi, due to availability of canal water, most of the farmers follow double cropping and adopt a diversified cropping pattern. In the kharif season the cultivators grow paddy which is called in Oriya *sarad dhan* (winter rice). Winter rice is sown in June-July and harvested between October and January. In the rabi season pulses like *biri* (black gram), *kulthi* (horse gram), *chana* (arhar); and vegetables like potato, brinjal, chilly, pumpkin; and oilseeds like

groundnut, mustard, sesamum, and; coriander seed and jowar are cultivated. The rabi crops are sown in October-November and harvested in February. Most of the farmers grow mung (green gram) in summer which is sown in February and reaped in April. Some cultivators sow biali (autumn rice) in June which is harvested (in August and September) earlier than kharif rice.

It is observed that farmers follow different cropping pattern on different types of land. In the case of irrigated land, paddy is cultivated in kharif and green gram in summer. But in the case of non-irrigated land which lies near the river-bed, paddy is cultivated in autumn and in rabi black gram, groundnut and other crops are cultivated. For the cultivation of vegetables like potato and brinjal land with irrigation facility from tanks is required as adequate canal irrigation is not provided in the rabi season. Many farmers do not grow autumn paddy on non-irrigated land as the yield is low (about half of the yield of kharif paddy) and labour cost is high.

An examination of the overall cropping pattern adopted in the two irrigated villages shows that in Harinababi, cash crops like jute, oilseeds, and vegetables account for a greater percentage of gross cropped area than that of Charapara (see Table 5.1), despite the fact that there are more resourceful large and medium farmers in Charapara and they are able to bear the risk of cultivating cash crops. It seems that farmers in Harinababi are more enterprising.

Most of them use their own labour and are hard working. Interestingly, when asked about the cause of not cultivating jute, the households in Charapara reported that the rabi crops are raised in October and November on the land near the riverbed of Brahmani where during the months of August and September silt is deposited by flood water. And the land near the river-bed in Charapara is not suitable for the cultivation of jute. This is because Charapara is situated at a lower level than Harinababi and flood water submerges the jute fields in Charapara if there is late or erratic monsoon. If the jute plants remain submerged under flood water for a few days the quality of jute that the plants ultimately give is substandard and it fetches a very low price in the market. Therefore, the farmers in Charapara are hesitant to take the risk as cultivation of jute also involves lots of labour cost and care. Thus the farming practices followed in a village to a large extent depend on the village's ecological conditions in terms of soil quality, rainfall and situational factors.

Now coming to the backward village Sandhagaon, as there is no irrigation facility at all either from canal or from lift irrigation, the cultivators follow monocropping and grow paddy in kharif season. A very few cultivators cultivate arhar, sesamum and potato in the rabi season on the land where there is minor irrigation facility, which is in fact illegal. When asked about their adjustment

behaviour in the wake of crop failure due to erratic monsoon, the farmers reported that they somehow manage to grow paddy by illegally using water from the pipes which carry water from the river Brahamani to the Talcher Thermal Power station through their village.

Data on percentage of gross cropped area under major crops according to tenancy status and villagewise are given in Table 5.1. The table shows that in Charapara, the OCs follow a more diversified cropping pattern than the PRTs and the PTs. Also among the two types of tenants, the PRTs cultivate a ^egr_λter number of crops than that of PTs. Thus diversification in cropping pattern is found to decline as one shifts from ownership status to tenancy, and as 'degree of tenancy' rises. One may argue that this might be due to the possession of good quality of land by the OCs. But Table 5.1 shows that the percentage of gross cropped area irrigated is nearly 60 per cent in the case of OCs as well as PRTs. It sharply increases to 80 per cent in the case of PTs. Thus the adoption of a diversified cropping pattern by the OCs is not due to the fact that they possess better quality land, but it might be due to their capacity to purchase inputs like fertiliser and seeds which are required for cultivation of crops other than paddy and pulses. Also, the OCs due to their large resource base can bear production risk that is involved in cultivating remunerative crops like oilseeds, jute and vegetables.

In contrast to Charapara, in Harinababi the PRTs

follow a more diversified cropping pattern than that of the OCs. Although the percentage of gross cropped area irrigated in the case of PRTs is lower than that of OCs. This is due to the fact that the tenants in Harinababi are good cultivators and enterprising as they are found to rent land in order to increase or to consolidate their operational holdings. This will be explained further in Chapter VI under the section on 'Who leases in and why?'.

In the non-irrigated village Sandhagaon, the diversification in cropping pattern decreases when one shifts from the status of owner cultivator to tenancy. But with increase in 'degree of tenancy' diversification also increases. This contradicts the observation in Charapara. It is supported by the fact that in non-irrigated agriculture the PTs who also hire out labour do not get work for a sufficient number of days.¹ Therefore, they try to cultivate the leased-in land intensively to meet their subsistence needs.

However, it is to be noted that in Sandhagaon none of the pure tenants cultivates potato in the rabi season. On enquiry they disclosed that they do not get fertiliser and pesticides in time whereas the higher caste 'karans' in the village get all inputs. The Village Agricultural Worker (V.A.W) who is responsible for the propagation of improved

¹ In Sandhagaon, the owner cultivators and the part tenants those who grow crops in the rabi season use entirely their own labour. Therefore, it becomes difficult on the part of a pure tenant to get work and he grows crops on tenanted land.

package of practice in the village never comes to them and always sits and discusses with the higher caste families. Thus a bitter feeling of the lower castes towards the higher castes is observed in the non-irrigated village whereas no respondent expressed such bitterness in irrigated villages. This shows that the landless tenants do not get access to extension services provided by the state machinery. The higher diversification of cropping pattern by pure tenants than that of PRTs does not imply their greater entrepreneurship and involvement in market but shows their compulsive participation under the drive to meet consumption needs.

5.3 CROPPING INTENSITY

Usually it is believed that cropping intensity or the extent of multiple cropping is high in the case of poor peasants and small operators as they have to eke out their existence from a small piece of land by cultivating it intensively.² We have calculated the average cropping intensity according to tenancy status in the case of our three sample villages. Cropping intensity has been measured as the ratio of gross cropped area to net sown area. The figures are presented in Table 5.2. The table shows that in

² See Berry and Cline (1979) and Bharadwaj (1974) for the reasons for the observed inverse relationship between size and productivity. But the inverse relationship breaks down in advanced agriculture in the wake of irrigation and H.Y.V. technology and specifically in post-green revolution areas (Roy, 1981).

Charapara and Harinababi, the cropping intensity decreases as one moves from the status of owner cultivator to part tenant and then to pure tenant. In Charapara the cropping intensity is highest for OCs i.e. 1.61. In the case of PRTs it is 1.57 and it is 1.32 for PTs. In village Harinababi the cropping intensity for OCs is higher (1.64) than that of PRTs(1.38). In the non-irrigated village the cropping intensity is the highest i.e. 1.09 for OCs. In contrast to the irrigated villages, in Sandhagaon the cropping intensity in the case of PRTs (1.02) is lower than that of PTs (1.06). The reason for this we have already discussed in the previous section. But the difference is too small.

To sum up, in all the study villages, the cropping intensity is found to decrease when one moves from the status of ownership to tenancy. In the irrigated villages cropping intensity declines as 'degree of tenancy' rises. But the reverse is observed in the non-irrigated village.

The average cropping intensity is found to be the highest i.e.1.57 in Charapara, followed by 1.56 in Harinababi and 1.05 in the non-irrigated village Sandhagaon.

An attempt to investigate the cause of higher cropping intensity in the case of owner cultivators than that of tenants reveals that owner operators own different types of land suitable for cultivation of different crops which enables them to adopt a diversified cropping pattern. The cropping pattern adopted by a farmer to a large extent

depends on the type of land that he possesses. For example, sandy soil is suitable for cultivation of groundnut, land near tanks is suitable for cultivation of potato because of availability of water. Moreover, the small tenants are not able to cultivate cash crops like jute, groundnut and potato because in the cultivation of these crops purchased inputs like seed and fertiliser are required which they do not have the resources to buy. Again agricultural operations in the cash crops are very delicate requiring timely completion and the inputs must be applied in time and in right dose otherwise the yield is reduced substantially. Thus the large variation in yield of cash crops discourages the poor tenants from cultivating these crops. They are not able to take the risk due to their precarious existence at the margin of subsistence.

5.4 SEED VARIETY

While analyzing the characteristics of farm economy it is very important to establish the variety of seed i.e. HYV or local, that the cultivators grow to comment on their package of practices. The seed variety has been analyzed for the staple cereal crop paddy (kharif) according to tenancy status. The findings are presented in Table 5.3.

The table shows that the percentage of area under HYV paddy is the highest (34.6%) in Charapara and then 24.1 per cent in Harinababi and lowest 19.4 per cent in Sandhagaon.

A comparison among different categories of farmers in

each village reveals that in Charapara the percentage of paddy area under HYV is the highest 57.6 per cent for PRTs and then 36.7 per cent for OCs and the lowest 2.8 per cent for PTs. In Sandhagaon also this ratio is the highest 35.2 per cent for PRTs and 14.6 per cent for OCs and only 6 per cent for PTs. But in Harinababi, percentage of area under HYV paddy is higher in the case of OCs than that of PRTs.

As the HYV yield per acre is much higher than the local average yield as shown in Table 5.3, the PRTs are cultivating it in higher percentage of area to get a share of the increased yield so that they can meet their subsistence needs and are not required to buy paddy from the market. But the PTs are not able to cultivate it because they do not have the resources to buy the seeds and the fertiliser required for its cultivation. All the farmers cultivating HYV paddy like 1009 and 1014 apply chemical fertiliser at a standard rate in a particular village. In Charapara the farmers were applying 50 kgs. of Calcium per acre in addition to the farm-yard manure at the rate that they apply for traditional variety. The owner cultivators hesitate to cultivate HYV paddy because the taste of HYV paddy is not as good as traditional variety. Also, they dislike to use chemical fertiliser, which they believe will degrade their land in the long run.

5.5 CROP YIELD: KHARIF PADDY

An attempt is here made to compare the yield of

kharif paddy according to tenancy status in the three study villages. We have chosen paddy, as all the farmers produce it and it is the staple cereal crop in the area. Table 5.3 shows that in Charapara the physical yield of kharif paddy is the highest (11 qtls/acre) in the case of PTs and then it is 10.3 qtls/acre for the OCs and the lowest 9.3 qtls/acre for PRTs. Yield is the highest for PTs, as they use their own labour and they try their best to get an augmented yield so that after paying the high rent (half of the gross produce) they will be able to meet their consumption requirements with the left over. The lower yield in the case of PRTs than that of OCs reveal some inefficiency in tenant cultivation. This finding is of course not strong enough to claim that tenancy leads to inefficient allocation of resources. We see no reason why the tenant would not cultivate his owned land with care and optimally. One needs to compare yield level on tenanted land with that of owned land.³ Moreover, if the OCs and PRTs belong to different size classes of operational holding, then the difference in yield may in part due to the size effect rather than due to tenancy effect alone. One has to control the size of holding to study the impact of tenancy.⁴

³ We have attempted several methods of comparing yield performance on owned land with that of tenanted land in Chapter VII.

⁴ We have tried to analyze the impact of tenancy on crop yield by controlling for size class in Chapter VII.

In village Harinababi the yield is higher in the case of OCs than that of PRTs as observed in Charapara. Thus in irrigated farming, the physical productivity is found to decline when one moves from ownership to tenancy. In the non-irrigated village Sandhagaon, the yield is the highest for PRTs (7.9 qtls/acre). This is because, the PRTs cultivate more of HYV where yield is significantly higher than that of local paddy. Moreover, in Sandhagaon only good farmers have leased in land for bullock adjustment purpose and they use more of their own labour in comparison to the owner cultivator class. The yield of paddy in the case of PT is 5.9 qtls/acre which is greater than that of OCs (5.7 qtls/acre). Thus in Sandhagaon, tenancy is found to be comparatively more efficient than what is found in the irrigated villages. However, in contrast to Charapara, in Sandhagaon yield rate of paddy decreases when 'degree of tenancy' rises.

Yield rate of paddy is the highest i.e. 11 qtls/acre in Harinababi and then it is 10.3 qtls/acre in Charapara and the lowest in Sandhagaon (6.6 qtls/acre)

5.6 COST OF CULTIVATION AND NET INCOME OF KHARIF PADDY

In this section, we attempt to study the resource use efficiency in cultivation of kharif paddy according to tenancy status. Table 5.4 contains data on gross income, operational cost and net income in rupees per acre of kharif paddy and the net returns per rupee invested

according to tenancy status. Gross income includes the money value of paddy produced and also of the by-products i.e. straw. Under operational costs, items like the cost of seed, labour cost (owned and hired), bullock labour cost (owned and hired), cost of chemical fertiliser and farm yard manure, cost of pesticides and taxes like irrigation tax and land revenue have been included. Net income is the difference between gross income and operational cost. Net returns per rupee invested is the ratio of net income to operational cost.

It is found that in Charapara the net returns per rupee invested is the highest i.e.1.64 for PTs and then 1.46 for OCs and the lowest for PRTs(0.90). In Harinababi also the net returns per rupee invested is higher in the case of OCs(1.54) than that of PRTs(1.35). Thus the findings with regard to resource use efficiency according to tenancy status tallies with our findings on physical yield.

In the non-irrigated village Sandhagaon the net income per acre of paddy is negative for OCs and PRTs, because the yield is low and the labour cost is about two times of the labour cost in irrigated paddy. In irrigated paddy the average labour cost is about 30 man days per acre whereas it is 70 man days per acre in non-irrigated paddy. Moreover, in the non-irrigated village Sandhagaon the wage is higher i.e. Rs.15/day than that of Charapara (Rs.12/day). As agriculture is not at all profitable in

Sandhagaon, the farmers prefer to lease out instead of self-cultivating it and as a result tenancy is more prevalent in Sandhagaon. The net loss per rupee invested is more for OCs(-0.31) than for PRTs(-0.11) and the PTs earn a marginal profit of 0.07 per rupee invested. Thus in the non-irrigated village resource use efficiency in cultivation of paddy increases when one moves from the status of ownership to tenancy and when 'degree of tenancy' increases.

It is to be noted that both in Charapara and Sandhagaon, the PTs are at the top in resource use efficiency. Their gross income per acre is found to be the highest and the operational cost to be the lowest. But when one moves from ownership status to tenancy status (PRT), the resource use efficiency declines in Charapara and Harinababi but the reverse is the case in Sandhagaon.

5.7 COST OF CULTIVATION AND NET INCOME PER ACRE OF NET SOWN AREA

In this section an attempt has been made to analyse the cost of cultivation and net income per acre of net sown area according to tenancy status. The measure of net income per acre of net sown area captures in a single figure the cropping intensity effect, the cropping pattern effect and the yield effect and thus is a good indicator of agricultural performance. Then the net returns per rupee invested is calculated to compare the efficiency of

different categories of farmers. The findings are summarised in Table 5.5.

Table 5.5 shows that in Charapara the net income per acre of net sown area is the highest for OCs (Rs 1501) followed by PTs (Rs.1356) and the lowest Rs.1209 for PRTs. And the net returns per rupee invested is the highest i.e. 1.59 for PTs, 1.3 for OCs and 1.18 for PRTs. The PTs are found to use relatively less inputs but get more outputs in comparison to PRTs and OCs. In Harinababi the net income per acre of net sown area in the case of PRTs is Rs.1617 and higher than that of OCs (Rs.1582). And net returns per rupee invested is 1.2 for OCs and 1.18 for PRTs. Thus in the irrigated villages the production performance in terms of net returns per rupee invested is found to decline when the farmer category shifts from owner cultivator to part owner and part tenant category (PRT). Thus PRTs are less efficient than owner cultivators.

By contrast, in the non-irrigated village Sandhagaon the net income per acre of net sown area is positive for PRTs and PTs but it is negative for OCs. The net returns per rupee invested is positive i.e. 0.08 both for PRTs and PTs, but for OCs it is -0.19. Thus in Sandhagaon the resource use efficiency increases when one moves from ownership status to tenancy status. Tenancy is relatively more efficient than owner cultivation.

It is to be noted that in Charapara and Sandhagaon when 'degree of tenancy' increases i.e. when one moves from

the PRTs to PTs, the resource use efficiency increases.

Information on cost of cultivation and net income per acre of gross cropped area is presented in Table 5.6.

5.8 PRODUCTION FUNCTION AND INPUT USE

It is usually argued that when the production function exhibits increasing returns to scale, the tendency to lease out will be small. In order to assess the scale effect on productivity, production functions for the three villages have been estimated. To avoid multicollinearity, only one input land has been considered. Interestingly, in the advanced village Charapara increasing returns to scale are observed whereas in Harinababi and Sandhagaon decreasing returns to scale prevail. This is in conformity with a large number of studies which reveal that increasing returns to scale are operative in advanced agriculture.

Production functions by taking into account only the labour input have also been estimated. The results show that in the advanced village Charapara nearly constant returns to scale are observed whereas in Harinababi and Sandhagaon decreasing returns to scale operate.

Production Functions and Input Use

CHARAPARA N = 22

Y = Value of total output in rupees

X₁ = Net sown area in acres

N = Number of observations

X₂ = Man days of labour

C = Total operational cost in rupees

$$\log Y = 3.25 + 1.21 \log X_1 \quad R \text{ Square}=0.94$$

$$\log Y = 1.98 + 0.95 \log X_2 \quad R \text{ Square}= 0.84$$

$$\log C = 2.97 + 1.06 \log X_1 \quad R \text{ Square}=0.90$$

$$\log X_2 = 1.45 + 1.08 \log X_1 \quad R \text{ Square}=0.80$$

Level of significance in all coefficients is 0.0000

HARINABABI N = 19

$$\log Y = 3.46 + 0.99 \log X_1 \quad R \text{ Square}=0.81$$

$$\log Y = 2.42 + 0.72 \log X_2 \quad R \text{ Square}= 0.83$$

$$\log C = 3.14 + 0.96 \log X_1 \quad R \text{ Square}=0.84$$

$$\log X_2 = 1.54 + 1.13 \log X_1 \quad R \text{ Square}=0.67$$

Level of significance in all coefficients is 0.0000

SANDHAGAON N = 15

$$\log Y = 3.32 + 0.80 \log X_1 \quad R \text{ Square}=0.76$$

$$\log Y = 2.38 + 0.56 \log X_2 \quad R \text{ Square}=0.56$$

Level of significance in all coefficients is 0.001

$$\log C = 3.29 + 0.95 X_1 \quad R \text{ Square}=0.80$$

$$\log X_2 = 1.82 + 1.06 X_1 \quad R \text{ Square}=0.73$$

Level of significance in all coefficients is 0.0000

In order to explain the scale effect on productivity the cost functions (total operational cost and labour use) have been estimated with respect to net sown area in acres. It is observed that in the advanced village Charapara, the operational cost and labour use increases more than proportionately with increase in net sown area. But in Harinababi and Sandhagaon the operational cost increases less than proportionately with increase in net sown area. In the case of labour use, in Charapara it increases more than proportionately with increase in net sown area. In Charapara, the large farmers use more of yield stimulating inputs like HYV seed, fertiliser, farmyard manure as a result, the cost coefficient is more than unity. This relationship is somewhat weaker in Harinababi as there is less of differentiation in size of operational holding in this village.

5.9 USE OF HUMAN LABOUR AND BULLOCK LABOUR: OWNED AND HIRED

Many economists tend to interpret tenancy as a resource adjustment mechanism. Some emphasize it more as a human labour adjustment mechanism than that of bullock adjustment mechanism. Also, Marxists⁵ use hiring-in and hiring-out of labour as a criterion to classify the farm households. Those who use others' labour i.e. hire in

⁵ Lenin emphasized the labour use criterion as a way of establishing the nature of differentiation of the peasantry. This has been further extended to the labour exploitation criterion by Patnaik (1987).

labour are considered to be relatively well-off and at a higher position in class hierarchy. Therefore, an attempt has been made to analyze the use of human labour and bullock labour of the households according to tenancy status.

Table 5.7 shows that in Charapara 69 per cent of the OCs use only hired labour and 8 per cent use only owned labour and the remaining 23 per cent use both owned and hired labour. In the case of PRTs 75 per cent use both owned and hired labour. In the case of PTs 60 per cent of them use only owned labour and the rest 40 per cent use both owned and hired labour. Thus the use of hired labour decreases when one moves from the ownership status to tenancy status and when 'degree of tenancy' increases. It is to be noted that the landless pure tenants also hire in labour whereas 100 per cent of them also hire out labour. Some of the agricultural operations like transplanting and harvesting have to be completed within a specific number of days. And that is why the farmers have to hire in labour to complete the operation within that specified time period irrespective of the class position. It is found that none of the OCs and PRTs hires out labour in Charapara.

In Harinababi 64 per cent of the OCs use only hired labour whereas 60 per cent of the PRTs use only owned labour. Thus tenants are found to use more of their own labour. In the backward village Sandhagaon, there is not much difference in use of owned and hired labour in relation to ownership, tenancy and 'degree of tenancy'. In

the case of pure tenants, 33 per cent are found to use only hired labour as they are salary holders. Due to reservation in services for the scheduled castes, most of the scheduled caste households in Sandhagaon have members who are in government jobs (class IV employee). It is found that in Sandhagaon a PRT and in Harinababi an OC hires out labour.

Then the use of bullock labour is examined to establish the nature of the market for hiring of bullocks. Economists like Bliss and Stern (1982), Jodha (1981) and Bell (1977) have explained tenancy as an adjustment of bullocks because of their unmarketability in rural areas. But in our study villages it is observed that hiring-in of bullock is quite prevalent. Buying a pair of bullocks is the largest investment in traditional agriculture and most of the farmers do not have the resources to pay in one go. So what is observed is that the less resourceful farmers prefer to buy only one bullock and hire in another from his covillagers. It is clear in Table 5.7 that hiring-in of bullocks is observed in all the study villages. It will be explained further while analyzing in Chapter VI.

5.10 SALE OF CROP

Sale of crop constitutes the end process of village agricultural activity and it is the most important. In order to identify the surplus producers of a village, the extent of market involvement of households needs to be analyzed.

It is found that in village Charapara about 73 per

cent of the cultivators sell crops (excluding the PL category) and in Harinababi and Sandhagaon the ratio is 53 and 7 per cent respectively (Table 5.8).

Mostly the OCs and PRTs sell crops. In Charapara on an average an OC sells crop worth Rs.3530 and a PRT sells for Rs.1125 and a PT sells for Rs.792.

In Charapara only one PT sells paddy for Rs.792. On inquiring about the cause of sale, the PT reported that he sold paddy to a resident to buy a bullock. Interestingly, a pure lessor was found to sell brinjal for Rs.15,000. This pure lessor who has leased out all his owned land has leased in 0.56 acres of irrigated land to cultivate brinjal in the rabi season and the leasing-in is only for one season. The cultivation of brinjal needs a lot of labour and timely watering and application of chemical fertiliser and pesticides. If the yield is normal, it is very remunerative. This PL had harvested 100 quintals of brinjal and he sold it to a trader just after harvest on the field itself at the price of Rs 150 per quintal. The rent contracted is fixed cash in this case. In village Charapara this type of leasing-in for a single season is often observed. Thus farmers are quite profit motivated and try to maximise their profit by seizing any prospective opportunity.

In Harinababi OCs sell crop to the value of Rs.3318 per household and PRTs to the value of Rs.3607. In Sandhagaon only a single OC medium farmer was found to sell paddy of the value of Rs.1040 after three months of

harvest. In Sandhagaon as the yield is low they retain it for self-consumption.

It is to be noted that in Charapara and Harinababi, a larger proportion of PRTs sell crops than do the OCs. From this one should not construe that the PRTs are more market oriented than the OCs. As the OCs have other sources of income like salary income and remittances, they can store their crop to fetch a remunerative price. It is found that for a large sum of agricultural expenses like annual wage payment to the farm servant which comes to about Rs.1500 or more, the OCs depend on remittances from their sons who are employed in urban areas. But the PRTs have to sell crop to obtain cash to meet most of their expenses. And they do not have considerable subsidiary income. The PRTs also buy crops when their own stock is finished or sometimes they borrow from surplus large farmers mainly paddy.

We gathered data also on the quantity of different crops sold by different farmer categories. Table 5.9 shows that in Charapara, OCs sell different types of crops like paddy, black gram, green gram, groundnut, coriander, jowar, horse gram. But no PRT was found to sell paddy. They sell crops like black gram, green gram and groundnut. Only one PT sells paddy and one PL sells brinjal. In Harinababi the OCs sell black gram, green gram, groundnut, jute, potato, brinjal and pumpkin. The PRTs sell black gram, no green gram (the main pulse crop used for home consumption), groundnut, jute, horse gram and brinjal. Thus in Harinababi no cultivators sell paddy. They retain paddy for domestic

consumption as their family size is large in comparison to the households in Charapara. They sell remunerative crops like jute and vegetables which the farmers in Charapara do not cultivate on a large scale for the market.

Economists view the participation of marginal and small farmers in the market as compulsive involvement as very often they make distress sale of crops to repay loan or to meet their immediate consumption needs. Therefore, the timing of sale of crops after harvest is very important from the viewpoint of economic analysis. The more months a cultivator can store his crops, the higher profit he will get by selling it at a higher price than at harvest. We have considered the timing of sale of black gram as most of the cultivators are found to sell it. Table 5.10 shows that in Charapara, a large proportion (45.5%) of OCs sell after six months whereas all the PRTs sell within three months after harvest. In comparison to Charapara the cultivators in Harinababi sell earlier. In Harinababi, a larger proportion of OCs (66.7%) than PRTs (50%) sell within three to six months after harvest. Thus, the OCs are in a better position than the tenants to retain their crops for the purpose of selling at a future date at increased price.

Most of the households reported selling crops to traders who come to the doorstep of the cultivators to purchase crops. The sale price of different crops after different months of harvest is given in Table 5.11. This price is the sale price of crops at which the farmers sell to the traders. The sale price has been recorded as

reported by the farmers. It is clear from the table that price increases sharply in successive months after harvest.

5.11 SUMMARY AND IMPLICATIONS

In this section we attempt to highlight some of our important findings which are crucial for an understanding of the tenancy and sharecropping relationship.

Firstly, in the advanced village Charapara the diversification in cropping pattern is found to decline as one shifts from ownership status to tenancy, and as 'degree of tenancy' rises. But in Harinababi the PRTs follow a more diversified cropping pattern than that of the OCs. In the non-irrigated village Sandhagaon, the diversification in cropping pattern decreases when one shifts from the status of owner cultivator to tenancy. But with increase in 'degree of tenancy' diversification also increases. This contradicts the observation in Charapara. The higher diversification of cropping pattern by pure tenants than that of PRTs does not imply their greater entrepreneurship and involvement in market but shows their compulsive participation under the drive to meet consumption needs. It is heartening to note that in Sandhagaon the landless tenants do not get access to extension services provided by the state machinery.

Secondly, in all the villages, the cropping intensity is found to decrease when one moves from the status of ownership to tenancy (part tenant). In the irrigated

villages cropping intensity declines as 'degree of tenancy' rises. But the reverse is observed in the non-irrigated village.

Thirdly, the part tenants are cultivating HYV paddy in higher percentage of area than owner cultivators (in Charapara and Sandhagaon) to get a share of the increased yield so that they can meet their subsistence needs and are not required to buy paddy from the market. But the pure tenants are not able to cultivate it because they do not have the resources to buy the seeds and the fertiliser required for its cultivation.

Fourthly, in irrigated villages, the physical yield of paddy is found to decline when one moves from ownership to tenancy i.e. from owner cultivators to part tenants. But yield in the case of pure tenants is the highest. In Sandhagaon, part tenants are more efficient than owner cultivators. However, in contrast to Charapara, in Sandhagaon yield rate of paddy decreases when 'degree of tenancy' rises.

Fifthly, with regard to overall resource use efficiency measured in terms of net returns per rupee invested per acre of net sown area, in Charapara and Sandhagaon, the PTs are the most efficient. Their operational cost is found to be the lowest. But when one moves from ownership status to tenancy status (PRT), the resource use efficiency declines in Charapara and Harinababi but the reverse is the case in Sandhagaon.

Thus in the non-irrigated village resource use

efficiency increases when one moves from the status of ownership to tenancy and when 'degree of tenancy' increases. By, contrast, in irrigated villages part tenants are found to be less efficient than owner cultivators. It is to be noted that in Charapara and Sandhagaon when 'degree of tenancy' increases i.e. when one moves from the PRTs to PTs, the resource use efficiency increases.

Sixthly, in the irrigated villages the use of hired labour decreases when one moves from the ownership status to tenancy status and when 'degree of tenancy' increases. In the backward village Sandhagaon, there is not much difference in use of owned and hired labour in relation to ownership, tenancy and 'degree of tenancy'.

Seventhly, in our study villages it is observed that hiring-in of bullock is quite prevalent.

Eighthly, in Charapara and Harinababi, a larger proportion of PRTs are found to sell crops than do the OCs. From this one should not construe that the PRTs are more market oriented than the OCs. As the OCs have other sources of income like salary income and remittances, they can store their crop to fetch a remunerative price. It was observed that in Charapara and Harinababi the OCs sell their crops at a later date at increased price than the part tenants. Thus the bargaining strength in the market transactions crucially depends on the class position.

TABLE 5.1

Percentage of Gross Cropped Area under Major Crops and Irrigated
According to Tenancy Status

Village\ Category	Percentage of Gross Cropped Area (GCA) Under						% of GCA Irrigated
	Paddy	Pulses	Oilseeds	Jute	Vegetables	Others	
CHARAPARA							
OC	45.9	48.2	2.5	0.4	1.2	1.7	60.4
PRT	39.5	56.5	3.4	-	0.6	-	60.2
PT	53.1	46.9	-	-	-	-	79.7
Total	45.6	49.3	2.4	0.3	1.0	1.3	62.2
HARINABABI							
OC	44.3	46.0	4.3	3.1	2.2	0.1	71.4
PRT	39.4	29.8	19.2	5.8	5.8	-	51.2
Total	42.9	41.6	8.4	3.8	3.2	0.1	65.9
SANDHAGAON							
OC	91.7	3.5	2.7	-	2.1	-	-
PRT	98.9	-	-	-	1.1	-	-
PT	94.6	4.1	1.3	-	-	-	-
Total	95.1	2.5	1.3	-	1.1	-	-

TABLE 5.2

Average Cropping Intensity
According to Tenancy Status

Village\ Category	Average Gross Cropped Area Acres	Average Net Sown Area Acres	Average Cropping Intensity

CHARAPARA			
OC	8.50	5.29	1.61
PRT	5.22	3.33	1.57
PT	2.84	2.14	1.32
Total	6.61	4.22	1.57
HARINABABI			
OC	4.32	2.64	1.64
PRT	4.57	3.31	1.38
Total	4.39	2.82	1.56
SANDHAGAON			
OC	3.00	2.75	1.09
PRT	3.67	3.61	1.02
PT	2.11	2.00	1.06
Total	2.82	2.68	1.05

TABLE 5.3

Area Cultivated and Crop Yield
(Kharif Paddy: HYV and Local)
According to Tenancy Status

Village\ Category	Average Area Cultivated Acres	Average Area under HYV Acres	% of Area under HYV	Average Yield HYV Qtls/Acre	Average Yield Local Qtls/Acre	Average Paddy Yield Qtls/Acre
CHARAPARA						
OC	2.89	1.06	36.7	11.4	9.7	10.3
PRT	1.57	0.91	57.6	9.6	8.7	9.3
PT	1.42	0.04	2.8	13.2	11.0	11.0
Total	2.31	0.80	34.6	11.0	9.9	10.3
HARINABABI						
OC	1.66	0.43	25.9	14.1	10.3	11.3
PRT	1.64	0.31	19.0	12.9	9.2	9.9
Total	1.65	0.40	24.1	13.9	10.0	11.0
SANDHAGAON						
OC	2.75	0.40	14.6	6.5	5.6	5.7
PRT	3.81	1.27	35.2	9.1	7.3	7.9
PT	2.00	0.12	6.0	10.0	5.6	5.9
Total	2.68	0.52	19.4	8.5	6.1	6.6

TABLE 5.4

Cost of Cultivation and Net Income of Kharif Paddy
According to Tenancy Status

Village\ Category	Average Area Cultivated Acres	Gross Income Rs/Acre	Operational Cost Rs/Acre	Net Income Rs/Acre	Net Returns per Rupee Invested
CHARAPARA					
OC	2.89	2,252	916	1,335	1.46
PRT	1.57	2,074	1,089	984	0.90
PT	1.42	2,375	899	1,477	1.64
Total	2.31	2,247	935	1,312	1.40
HARINABABI					
OC	1.66	2,423	953	1,470	1.54
PRT	1.64	2,190	933	1,257	1.35
Total	1.65	2,362	948	1,414	1.49
SANDHAGAON					
OC	2.75	1,347	1,943	-595	-0.31
PRT	3.61	1,722	1,936	-214	-0.11
PT	2.00	1,758	1,640	117	0.07
Total	2.68	1,604	1,850	-245	-0.13

TABLE 5.5

Operational Cost and Net Income
Per Acre of Net Sown Area
According to Tenancy Status

Village\ Category	Opera- tional Cost Rs\Acre	Gross Income Rs\Acre	Net Income Rs\Acre	Net Returns per Rupee Invested
CHARAPARA				
OC	1,153	2,654	1,501	1.30
PRT	1,023	2,232	1,209	1.18
PT	853	2,209	1,356	1.59
Total	1,100	2,542	1,442	1.31
HARINABABI				
OC	1,313	2,894	1,582	1.20
PRT	1,370	2,988	1,617	1.18
Total	1,330	2,923	1,593	1.20
SANDHAGAON				
OC	2,116	1,708	-408	-0.19
PRT	1,723	1,869	146	0.08
PT	1,676	1,814	137	0.08
Total	1,843	1,797	-46	-0.02

TABLE 5.6

Operational Cost and Net Income
Per Acre of Gross Cropped Area
According to Tenancy Status

Village\ Category	Opera- tional Cost Rs\Acre	Gross Income Rs\Acre	Net Income Rs\Acre	Net Returns Per Rupee Invested
CHARAPARA				
OC	718	1,651	934	1.30
PRT	652	1,424	772	1.18
PT	645	1,670	1,025	1.59
Total	701	1,621	919	1.31
HARINABABI				
OC	801	1,766	965	1.20
PRT	992	2,164	1,172	1.18
Total	853	1,875	1,022	1.20
SANDHAGAON				
OC	1,941	1,566	-375	-0.19
PRT	1,695	1,838	144	0.08
PT	1,586	1,716	130	0.08
Total	1,749	1,706	-44	-0.02

TABLE 5.7

Use of Owned and Hired Labour and, Hiring of Bullock
According to Tenancy Status
(Number of Households)

Village\ Category	Only Hired Labour	Owned Plus Hired Labour	Only Owned Labour	Total House- holds	Hiring Out Labour	Hiring- in One Bullock
CHARAPARA						
OC	9 (69.2)	3 (23.1)	1 (7.7)	13 (100.0)	- (0.0)	- (0.0)
PRT	1 (25.0)	3 (75.0)	- (0.0)	4 (100.0)	- (0.0)	1 (25.0)
PT	- (0.0)	2 (40.0)	3 (60.0)	5 (100.0)	5 (100.0)	2 (40.0)
Total	10 (45.5)	8 (36.4)	4 (18.2)	22 (100.0)	5 (22.7)	3 (13.6)
HARINABABI						
OC	9 (64.3)	- (0.0)	5 (35.7)	14 (100.0)	- (0.0)	3 (21.4)
PRT	2 (40.0)	- (0.0)	3 (60.0)	5 (100.0)	- (0.0)	1 (20.0)
Total	11 (57.9)	- (0.0)	8 (42.1)	19 (100.0)	- (0.0)	4 (21.1)
SANDHAGAON						
OC	2 (40.0)	2 (40.0)	1 (20.0)	5 (100.0)	- (0.0)	- (0.0)
PRT	2.0 (50.0)	1 (25.0)	1 (25.0)	4 (100.0)	1 (25.0)	- (0.0)
PT	2 (33.3)	4 (66.7)	- (0.0)	6 (100.0)	5 (83.3)	1 (16.7)
Total	6 (40.0)	7 (46.7)	2 (13.30)	15 (100.0)	6 (40.0)	1 (6.7)

Note: Figures in parentheses indicate percentages of total.

TABLE 5.8

Percentage of Households Selling Crops and
Rupees Sold per Household
According to Tenancy Status

Village\ Category	Total No. of House- holds	No. of Households Selling Crop	% of Total	Total Crops Sold Rs	Rupees Sold per House- hold
CHARAPARA					
OC	13	11	84.6	38,834	3,530
PRT	4	4	100.0	4,498	1,125
PT	5	1	20.0	792	792
PL	9	1	11.1	15,000	15,000
Total	31	17	54.8	59,124	3,478
HARINABABI					
OC	14	6	42.9	19,910	3,318
PRT	5	4	80.0	16,155	4,039
Total	19	10	52.6	36,065	3,607
SANDHAGAON					
OC	5	1	20.0	1,040	1,040
Total	15	1	6.7	1,040	1,040

TABLE 5.9

Quantity of Different Crops sold and Total Sale Value
According to Tenancy Status

Village\ Category	No. of House-Holds Selling	Crop	Paddy Qtls	Black Gram Qtls	Green Gram Qtls	Ground Nut Qtls	Jute Qtls	Cori-ander Qtls	Jowar Qtls	Horse Gram Qtls	Potato Qtls	Brinjal Qtls	Pump-kin Qtls	Total Sale Value Rs.
CHARAPARA														
OC	11		39.3	31.0	6.5	11.7	-	1.2	0.2	1.1	-	-	-	38,834
PRT	4		-	4.8	1.4	1.5	-	-	-	-	-	-	-	4,498
PT	1		5.3	-	-	-	-	-	-	-	-	-	-	792
PL	1		-	-	-	-	-	-	-	-	-	100.0	-	15,000
Total	17		44.6	35.8	7.9	13.2	0.0	1.2	0.2	1.1	0.0	100.0	0.0	59,124
HARINABABI														
OC	6		-	3.0	0.3	9.0	9.4	-	-	-	6.0	62.0	1.0	19,910
PRT	4		-	1.5	-	7.3	4.8	-	-	0.5	-	65.0	-	16,155
Total	10		-	4.5	0.3	16.3	14.2	-	-	0.5	6.0	127.0	1.0	36,065
SANDHAGAON														
OC	1		6.0	-	-	-	-	-	-	-	-	-	-	1,040
Total	1		6.0	-	-	-	-	-	-	-	-	-	-	1,040

TABLE 5.10

Percentage of Households Selling Black Gram:
Months after Harvest
According to Tenancy Status

Village\ Category	No. of Households Selling Crop	% of Households Selling Months after Harvest		
		1 - 3	3 - 6	After 6

CHARAPARA				
OC	11	27.3	27.3	45.5
PRT	4	100.0	-	-
Total	15	46.7	20.0	33.3
HARINABABI				
OC	3	33.3	66.7	-
PRT	2	50.0	50.0	-
Total	5	40.0	60.0	-

TABLE 5.11

Sale Price of Crops at Months after Harvest
Charapara and Harinababi

Months After Harvest	Paddy Rs/Qtl	Green Gram Rs/Qtl	Black Gram Rs/Qtl	Ground Nut Rs/Qtl	Jute Rs/Qtl
1	150	600	500	550	380
2	170	650	500	700	400
3	182	675	600	800	450
4	182	675	600	850	600
5	190	675	600	850	-
6	200	700	650	850	-

CHAPTER VI

BASIC FEATURES OF SHARE TENANCY: SURVEY FINDINGS AND IMPLICATIONS

6.1 INTRODUCTION

Having considered the characteristics of households and the farm economy of the three study villages in relation to ownership, tenancy and 'degree of tenancy', we are in a position to analyse the features of share tenancy contracts which are to a large extent correlated to these characteristics in a meaningful way. The features under study include incidence of tenancy, who leases in and why, who leases out and why, sharing arrangement of crop and by-products, sharing of input cost, decisions regarding cropping pattern and input use, causes of eviction, preference for tenants etc.. The efficiency implications of share tenancy and dynamics of tenancy contracts are examined in Chapter VII. In Chapter VIII interlinked tenancy contracts are described.

6.2 TWO DIFFERENT VIEWPOINTS ON SHARECROPPING

Let us start by reminding ourselves of the broad characteristics of two differing viewpoints on share tenancy: the 'new' neoclassical view and the Marxist view. We may then review our survey findings and consider what support they give to one or other of these views.

Firstly, the neoclassicals presume that tenancy is a voluntary contractual arrangement, whereas Marxists believe tenancy to be a compulsive involvement in market transactions and essentially a production relation.

Secondly, the 'new' neoclassicals consider tenancy to be a rational response to market imperfections aiming at improving allocative efficiency. They explain the existence of share tenancy in terms of its allocative efficiency enhancing role in a static world. Marxists, by contrast, deem share tenancy to be a method of surplus appropriation concomitant with the stage of development of productive forces.

Marxists are more concerned with evolution of tenancy contracts in a dynamic world. But the evolution of the tenancy relationship is not to increase allocative efficiency but to increase surplus extraction and in the process inequality is widened because of wealth being cumulatively appropriated by the dominant class.

Thirdly, the neoclassicals consider the peasantry as a homogeneous mass that can be divided into two taxonomic categories, landowner and tenant. By contrast, Marxists take into consideration the differentiation of the peasantry i.e. classification of peasantry into different classes and examine the leasing behaviour according to their position in the class hierarchy.

6.3 INCIDENCE OF SHARE TENANCY

The question of incidence of tenancy embraces within itself three sets of issues which have theoretical relevance. The first is whether fixed tenancy or share tenancy is prevalent in the villages under study. The second is whether the incidence of share tenancy is increasing or decreasing with the advancement of agriculture. This can be examined with time series data collected over a period of time in a particular village or cross-sectional data across regions having varied degree of agricultural advancement at a particular point of time. The third is whether pure tenancy or part tenancy is more prevalent and how its incidence varies across regions and over time.

In the villages under study, the major manifestation of tenancy upon which we have drawn several conclusions from our data in the previous two chapters is sharecropping. Fixed kind and fixed cash rent are relatively rare, except for one or two cases of fixed cash tenancy observed in the advanced village Charapara. The prevalence of share tenancy in Orissa is corroborated by a number of empirical studies (Bardhan, 1984b; Bharadwaj and Das, 1975a). A villagewise comparison of the incidence of share tenancy reveals that it is more prevalent in the non-irrigated village Sandhagaon than in the irrigated villages. In Sandhagaon about 41 per cent of the operational area is under share tenancy whereas it is about 19 per cent in Charapara and about 12 per cent in

Harinababi (Table 6.1).

In Sandhagaon agriculture is a losing concern as rainfed farming is practised in this village in the absence of any irrigational facility. Moreover, as we have noted earlier the wage rate is found to be higher in this village as casual labourers demand high wage in parity with the available industrial wage. It is surrounded by industrial complexes where wage paid to workers is usually higher than agricultural wage. The high wage and high cost of cultivation persuades the landholders who have other sources of income like salary and business to lease out their land instead of self-cultivating. On the demand side, the landless casual labourers do not get work round the year as there is no agricultural work available in the rabi season. Almost all the cultivators in village Sandhagaon those who grow potato in the rabi season use their own labour. Therefore, the agricultural labourers are keen to lease in land to have some security in terms of crop. Thus, leasing-in represents insurance against hunger.

In the case of irrigated villages where wet cultivation of paddy is mainly followed, the medium and large farmers are usually drudgery averse unless compelled by subsistence needs. Cultivation of rice requires such detailed supervision of field operations like ploughing, weeding and transplanting, that it is almost as onerous to supervise these tasks as to do them oneself. Also hired labour-based rice cultivation is very expensive and not at

all remunerative.¹ The large farmers are no more under the compulsion of consumption needs to cultivate intensively, as their income status has improved due to remittances sent by the migrant family members. Thus, ecology and the production technology somehow affect the productive forces emerging in a village. This finding is strengthened by the fact that during the time of our investigation some cultivators when asked about the reasons for low yields reported that they lacked the zeal to produce more as they had sufficient salary income. And supervision of labour and labour management is now-a-days too difficult as demand for labour is heavy in relation to availability particularly at peak periods like transplanting and harvesting time. Farm servants are not easily available. If they are not treated properly, they simply move away to another employer as the large landholders are always in search of farm servants. The farm servants switch employers very often for increased wages or for any personal grievances against their employers. It is very easy for a farm servant to get an alternative employer whereas it is extremely difficult for an employer to get another farm servant. No capitalist or commercial tenants are observed in the irrigated villages, since it is not seen to be worthwhile to rent land that

¹ Bray (1991) argues that in Japan, Taiwan and South Korea, where wet rice cultivation is practised, the production units have converged towards small family labour farms. A small rice-field requires a lot of labour, it can also support a lot of labour. Therefore, in rice growing regions, dense population, small farms, peasant family farming as opposed to capitalist farming and land augmenting technology rather than labour augmenting technical innovations are observed in sharp contrast to the European experience.

would have to be cultivated with wage labour.

This finding that there is larger incidence of sharecropping in a non-irrigated village than that of irrigated villages suggests that sharecropping is a distinguishing feature of backward agriculture. There is a large volume of empirical studies which reveals that tenancy is more prevalent in advanced agriculture. As farming turns out to be lucrative with technological development, the large farmers in advanced areas are now leasing in land to cultivate on commercial basis. This sort of leasing-in by large farmers is termed as reverse tenancy (singh, 1989) or capitalist tenancy (Parthasarathy, 1991). In agriculturally progressive areas, the marginal and small farmers are not able to compete with the rich peasants to get the leaseholds. The large farmers are found to rent land on fixed crop or fixed cash basis rather than on crop share (Vyas, 1970: A-78, Bhalla, 1983: 837).

If we next analyse the incidence of share tenancy overtime in particular villages, in the irrigated villages most of the tenants reported that share tenancy is tending to increase whereas in the non-irrigated village no such trend is perceptible. The increase of share tenancy in irrigated villages is mainly due to the migration of household members to urban areas for employment. In the next section, we analyze the incidence of pure and part tenancy.

6.4 SHARECROPPING AND THE INCIDENCE OF PURE AND PART TENANCY

It is sometimes suggested that land attracts land: that landlords prefer to lease out land to land owning peasants as they are considered to be efficient cultivators with managerial experience in farming (Nadkarni, 1976: A142; Sharma and Dreze, 1990: 58); Chadha and Bhaumik, 1992: 1010; Gill, 1989: A82). On the other hand, some empirical findings suggest that the big lessors prefer to lease out to landless tenants with large family size (dependency burden) and preferably in small parcels (Bharadwaj and Das, 1975a: 200-1). It is argued that under the burden of survival the landless poor will exert more effort to get an increased yield. This is interpreted as a strategy to extract labour rent in a hidden and subtle manner.

Our findings with regard to the incidence of pure and part tenancy are presented in Table 6.2. In the advanced village Charapara the major proportion (60%) of tenanted area is under pure tenancy whereas it is about 31 per cent in the non-irrigated village Sandhagaon. In the case of Harinababi this question does not arise as there are no pure tenants in Harinababi. In village Sandhagaon the resident lessors show their preference to lease out to their own caste relatives who are good cultivators rather than leasing out to landless scheduled castes. In this village there is some sort of animosity observed between the higher and the lower castes whereas in the irrigated village Charapara there is good understanding between the

two classes. It is not the caste consideration but managerial ability and honesty in paying rent are the criteria on the basis of which the lessors select their tenants in Charapara. Managerial ability is gauged by a number of factors: the possession of land, experience in cultivation, number of able-bodied adult male members in the family and past yield performance of the tenants. Leasing out to landless or pure tenants is comparatively a recent phenomenon in Charapara (elaborated in section 6.10). This is due to the increase in supply of tenanted land because of migration of family members of the landed class to urban areas for employment. There are no landowning households who are really interested to lease in land. Due to greater increase in wages relative to rise in agricultural prices, sharecropping on hired labour basis is not at all profitable. Therefore, the landless tenants are getting chance to lease in land.

6.5 WHO LEASES IN AND WHY?

The decision to enter into a tenancy contract can mainly be triggered by two types of motives. Firstly, the aim may be to earn subsistence as no alternative job opportunity is available. In this case, it is a compulsive and involuntary participation in the transaction because the returns from tenanted land are hardly commensurate with the effort that the tenant puts in due to payment of high rent. The poor peasant most unwillingly enters into the production relations of share tenancy as there is no other

option left for him other than sitting idly and semi-starved at home. Secondly, leasing-in may be undertaken to increase the scale of operation due to indivisibility of factors of production and to reap economies of scale and earn commercial profit. Here the contract is voluntary and promotes allocative efficiency. This type of tenancy is called capitalist or commercial tenancy. In the first case tenancy is a survival strategy whereas in the second case it is a welfare promoting device.

In backward agriculture 'subsistence leasing' by poor peasants on sharecropping basis is mainly observed as a survival strategy. By contrast, in agriculturally progressive areas 'commercial leasing' by rich peasants on fixed rent basis is prominent. There are several empirical studies claiming that in developed areas, large farmers are found to lease in whereas small farmers tend to lease out (Bharadwaj and Das, 1975a, Nadkarni, 1976: A41; Singh, 1989: A88; Vyas, 1970: A7; Srivastava, 1989a: 358). The entrepreneurial large farmers rent in land primarily to cultivate large tracts of land in a compact block on commercial lines by using tractor and installing pumpsets for irrigation and to reap economies of scale in the wake of technological change. The small farmers lease out because there is security of wage earnings in advanced agriculture due to high demand for labour. They prefer wage income which is certain in advanced areas to uncertain crop income from leased-in land.

Our study villages are located in the agriculturally

backward region of Eastern India where mechanisation is as yet in its infancy. There are mainly small lessees and also small lessors found in our study villages. This finding supports Ray's (1978) evidence from West Bengal. The details of leasing-in are presented in Table 6.3. The table shows that mostly the landless, marginal farmers and small farmers are leasing in land. The average owned holding of an owner tenant is 2.32 acres in Charapara, 4.4 acres in Harinababi and 2.83 acres in Sandhagaon (see Table 4.4). The average owned holding of a tenant owner is much smaller, only 1.96 acres in Charapara, 0.96 acres in Harinababi and 0.48 acres in Sandhagaon (see Table 4.4). It is clear from Table 6.3 that the tenants are mainly MFs and SFs. It is to be noted that all these tenancy agreements are annual contracts.

Interestingly, we found that in the advanced village Charapara two owner cultivator medium farmers and an owner tenant marginal farmer and a pure lessor medium farmer have leased in land seasonally to cultivate vegetables. The OCs and the OT have leased in about 0.12 to 0.16 acres of land to cultivate potato as they do not have land suitable for cultivation of potato. In this case of leasing in for cultivation of potato the terms and conditions of the lease are quite different from the annual tenancy. Here the owner of the land gets 25 per cent or 20 per cent or one third of the yield for ownership and then the rest crop is equally divided between the owner and the lessee as the owner is partner in the cultivation process by sharing 50 per cent

of total input cost which includes seed, fertiliser, pesticides, bullock labour and human labour cost and others. In this case the owner is actively engaged in the day-to-day agricultural operations. But none of these households was found to sell potato and they retained everything for their own consumption. When asked the reason for not cultivating potato on a large scale, they reported their inability to take the risk as potato cultivation needs a lot of watering and fertiliser application and entails high labour cost. On the other hand, the probability of crop failure is quite high. This is partly because of an erratic monsoon what might mean rain when the sprout has not yet come out. Moreover, potato plants are prone to pest attack and plant diseases.

In the case of the PL leasing in land seasonally, the mode of rent payment was fixed cash for cultivation of brinjal. Thus, the medium farmers are leasing in on favourable terms with low share rent, rent paid in cash and input sharing basis, whereas the marginal and small farmers are leasing on sharecropping basis with high rent.

Thus we found that mainly the landless, marginal and small farmers are leasing in land. It is they who are sharecroppers. Then the pertinent question arises of why are they leasing in land. On inquiring about the causes of leasing in, in Charapara all the tenants reported that lack of alternative job opportunity compels them to lease in land (see Table 6.4). In Harinababi 60 per cent of the tenants and in Sandhagaon 80 per cent reported 'no

alternative job opportunity' as the reason. In Harinababi 20 percent each reported the reason for leasing in as 'to consolidate holding' and 'to increase operational holding' and in Sandhagaon 20 per cent of the households reported 'bullock adjustment' as the reason for leasing-in.

Thus, it emerges clearly that tenants are renting land because there is no alternative employment opportunity for them. It is a compulsive involvement in the transaction and supports the Marxist view. We need to explore whether the compulsion is economic i.e. due to certain macro features of the economy or non-economic characterised by extra-economic coercion. Our study reveals that the share tenants are under no bondage or compulsion to lease in land from a particular lessor. They are quite free to take their own decisions how much land area to lease in and from whom. The lessees are completely free to rent land from more than one lessor. No tenant reported doing unpaid labour services for the lessor and when they work for the lessor they are usually properly paid. But it is observed that tenants do sometimes borrow from the lessors and that they repay in terms of labour; and that they are paid less than the prevailing wage rate - which is, of course, equivalent to charging an implicit interest rate. Thus, the evidence negates the presence of any sort of extra-economic coercion, but suggests some interlinking of markets.

But absence of coercion of course does not mean absence of exploitation. The mode of exploitation changes with changes in productive forces and there may be subtle

and hidden strategies to extract surplus. The compulsions are more due to the macro features of the economy at large rather than due to exercise of power of landlord class over the poor peasants within a village boundary. Due to the slow pace of industrialisation, the land poor peasants find it difficult to get alternative jobs. Therefore, they are leasing in land even if it is hardly remunerative. By leasing in land, they become subordinate to the landowning class and subject to all sorts of surplus extraction through high rents, low wages and interlinking transactions with labour, credit and output markets. In the villages under study sharecropping can clearly be seen as a method of surplus appropriation as the aim of the landowner is not to improve allocative efficiency but to appropriate surplus after paying the labour just enough for his reproduction.

Some economists view tenancy as a bullock labour adjustment (Bliss and Stern, 1982; Jodha, 1981; Bell, 1977). In our survey only 25 per cent of the tenants in Sandhagaon reported bullock adjustment as the reason for leasing-in. In Sandhagaon almost all the cultivating households are found to own a pair of bullocks. They require bullocks not only for ploughing but also for the bullock cart to carry farm yard manure to the fields. They even earn by hiring out their bullock carts. A landless labourer was found to possess a pair of bullocks and he was hiring them out to earn some money.

In the three study villages it was found that the bullock market is to a large extent developed as hiring-in

of bullock labour. That we have shown clearly in Table 5.8. In Sandhagaon, a pure tenant reported borrowing from a private moneylender to buy one bullock and when asked how he would repay the loan he categorically replied that he would sell the bullock after the agricultural operations were over to repay the loan. Moreover, in Charapara pure tenants are leasing in land jointly as each owns only one bullock and they are cultivating on partnership. The charge for hiring in a pair of bullock in all the villages is Rs.30 per day and the bullock owner provides a ploughman with the pair of bullocks. Thus the bullock market is quite developed and tenancy can therefore be construed as a human labour adjustment mechanism, rather than a bullock-labour adjustment mechanism.

The land market is not active as only under adverse circumstances the households sell land: as at the time of daughter's marriage and funeral ceremony as portrayed in Table 4.27. Every one tries to retain ancestral land and also there is considerable appreciation in the price of land. There is an interest in investing in land but an absence of land coming to the market. Therefore, some cultivators in Harinababi are found to lease in land to increase or consolidate their operational holding.

In the labour market landless casual labourers do not get work throughout the year and it is found that households with a large number of family members are interested in leasing in land as they have already some wage income earned by some family members. And if they

produce some crop by leasing in land, they have an insurance against hunger for the rest of the year. Moreover, the part tenants belong to the higher castes and due to the caste status they cannot hire out labour and work in another man's field. As a result, they lease in land as they do not have any alternative employment opportunity.

The next important question is why we find sharecropping instead of renting land on a fixed cash or crop rent. The most plausible explanation for this is that due to their precarious existence at the margin of subsistence, potential tenants are not in a position to take the risk of a fixed payment contract.

A second important aspect of sharecropping is whether it pays the tenant to lease in land. To address this we have calculated total farm income per acre of gross cropped area in the case of tenanted land of part tenants by subtracting the rent payment and adding the imputed value of own labour to the net income. The findings are presented in Table 6.5. It is clear from the table that in the case of part tenants, tenancy is nothing but a labour adjustment process as imputed value of own labour constitutes a significant proportion of farm income and in some cases the net receipt after payment of rent is negative and gives positive profit only when we add imputed value of own labour to the net receipt.

In the non-irrigated village the landless pure tenants reported that leasing-in is not at all paying whereas the pure tenants in Charapara reported that because of the landowning class they are able to survive by renting land. This is because some patronage element of the landowning class is observed in the village Charapara. Thus, all in all, clearly tenants are leasing in land most unwillingly as no other job opportunities are available. From this fact, it can be discerned that if alternative job opportunities were available to the land-poor section of the peasantry in the non-farm sector through industrialisation, sharecropping would tend to disappear. The crux of the problem here is not so much that the class relation as emphasised by Marxists that compels the rural poor to interlink transactions, as it is the operation of certain macro features like population pressure on limited land, tardy industrialisation, lack of employment opportunity, that serves the persistence of sharecropping. We suggest that the autonomous role of production relations, or agrarian structure, should not be overstressed.

6.6 WHO LEASES OUT AND WHY?

In our study villages most of the lessors are small lessors i.e. MFs and SFs as shown in Table 6.6. In the irrigated villages all the lessors are MFs and SFs whereas in Sandhagaon there are two MDF lessors. The average holding of pure lessors in Charapara is 2.03 acres, and 1.4

acres in Harinababi and 2.98 acres in Sandhagaon. Table 6.6 shows that in Charapara there are three owner cultivators belonging to the MDF and LF categories who have also leased out a part of their land because of distant land or problematic land. In Sandhagaon a scheduled caste landholder has also leased out all of his land because he has salary income.

In the irrigated villages most of the lessors are semi-absentee landlords in the sense that the heads of the lessor households have migrated to urban areas and are employed there, whereas their family members stay in the village. They come to the village every two or three months to see their family members. But in Sandhagaon there are also resident lessors. As they have other sources of income, they prefer leasing out to self-cultivation. Thus lessors are leasing out not with the primary motive of earning rent income and to consolidate their power in the village, but due to some contingencies which are discussed below under causes of leasing out.

Reasons for leasing out are given in Table 6.7. In Charapara out of 9 pure lessor households 4 PLs reported that as there is no able adult male member in the family to supervise cultivation due to the migration of the head of the household to urban area for employment, they are leasing out land. The OCs who have leased out part of their land reported that as the land is situated at a distant place they prefer to lease out. One LF in Charapara reported that as the land is problematic due to too much

weeding, he leased it out. The hidden intention is to take it up for self-cultivation after few years when weeding will be lessened as the tenant will weed it to grow crops on it. Moreover, it is found that the owner cultivators prefer to lease out non-irrigated land as shown in Table 6.6. In Harinababi out of 3 pure lessors 2 reported lack of sufficient man-power as the cause of leasing out.

It is also reported that in Sandhagaon, 3 out of 6 PLs responded that they did not have bullock power to cultivate land and that is why they leased it out. In backward agriculture investment in bullocks is the biggest investment for which a large sum is required at a time and most of the cultivators do not have that much money to invest at one time. It is to be noted that in Charapara an OC SF reported selling land to buy a bullock and a PT sold paddy just after harvest to a village resident to buy a bullock. And in all the villages some indebted households are found to borrow to buy bullocks. Non-possession of bullocks also compels the lessors to lease out.

When we asked the tenants the reasons for their lessors' leasing out land, most of them also reported that their lessors did not have able-bodied adults residing in the village to supervise cultivation due to emigration of family members.

It is to be noted that though there are pure lessors the pure rentier class is quite absent. We find that in Charapara only 13 per cent of the income of PLs is rent income and it is 8 per cent in Harinababi and 11 per cent

in Sandhagaon as shown in Table 4.12. Again in Charapara a major proportion of PLs' income is from remittances (46%). In Harinababi also remittances constitute a significant proportion of PLs' income (68%). But in Sandhagaon the major source of income in the case of pure lessors is salary (49%). Thus salary holders even if residing in the village prefer to lease out in Sandhagaon. Returns from the cultivation of non-irrigated land are not large enough to attract the salary holders to self-cultivate the land and to take the responsibility of labour supervision.

Thus tenancy is observed in the villages not due to the intention of the lessors to subjugate the tenants but due to certain contingencies which give the lessors little option but to lease out. Bhalla's (1983) pipeline theory² has thrown some light on this aspect but in contrast to her theory here the semi-absentee lessors have not entered into the pipeline which ultimately leads to sale of land. We observe that while the heads of households have migrated to urban areas for employment, their family members stay in the village as they cannot afford to maintain their family in the metropolis with their meagre income. All of the semi-absentee pure lessors are employed in unskilled manual jobs and also in the private sector. After retirement they will return to the village and try to self-cultivate their land. One PL reported that on his retirement he returned to

² In Bhalla's 'pipeline theory' in the first instance non-cultivating village residents, or absentee landlords, whose main income is derived from a non-farm occupation lease out land. But as time passes these lessors lose interest in land and lose contact with the village and ultimately sell their land.

the village and self-cultivated his land for two years. But he found it difficult due to his lack of experience in cultivation. Also, old age prevented him from injecting much effort, ultimately he leased out the land. Twenty to thirty years back these pure lessor households were leasing in land and even hiring out labour to large farmers. As they needed money for agricultural expenses the disguised unemployed members preferred to emigrate to urban areas so that the family could have some non-farm income. And when the father of the emigrant who was cultivating the land becomes too old or dies, there is no able male adult in the family to undertake cultivation and the semi-absentee head of household has no option but to lease out land.

Whereas the potential tenants from the irrigated villages have migrated to urban areas and are not adequately paid there, there is an influx of immigrants from tribal drought prone and hilly areas to irrigated villages. Many of them are employed as farm servants and after staying for 10 to 15 years some of them have settled in these areas having their own house and family. Now they have started leasing in land and the lessors also prefer to lease out to them as they are laborious and good cultivators and honest. They work hard to get a good yield because fear of eviction looms large in their minds. They apprehend that their chance of being evicted is more than that of the native tenants. Table 6.6 shows that one OC and two PLs have leased out to two scheduled tribe families who have settled in the adjacent village. Thus the immigrants

from tribal areas help in the persistence of precapitalist relations in the irrigated areas, and the emigrants from the irrigated villages become susceptible to exploitation in the metropolis and worsen the conditions there by dampening wages. Even most of the farm servants in the irrigated villages are immigrants from tribal areas and the ex-resident farm servants have become casual labourers or pure tenants.

Tenancy contracts are observed to persist in the irrigated villages not due to the deliberate strategy of the land-owning class to subjugate the poorer class over time but because the exploited class has itself been displaced by another set of immigrants from tribal drought prone areas. Therefore, interlinked transactions have not remained an intravillage phenomenon. Rather they have crossed village boundary and needs to be explained within a macro framework where population growth, unemployment, the slow pace of industrialisation and so on play a role in the persistence of interlinkage. The prediction of both neoclassicals and Marxists that tenancy would tend to disappear did not fructify because they perhaps could not foresee the effect of these macro features; and the migration aspect which has profound influence on the tenancy relations has not been given due attention. Thus the land-holding class takes advantage of certain contingencies created due to some macro features over which they do not have any control, though they benefit from them.

Pearce (1983) provides a Marxist explanation of

sharecropping and his view is that with the disappearance of the contingencies that give rise to tenancy contracts, share tenancy would tend to disappear. But the pertinent question is precisely what these contingencies are. Pearce emphasises the role of risk and transaction cost in structuring the mode of production in the interest of the dominant class. And he argues that with mechanisation supervision will become unnecessary and sharecropping will disappear. But in the real world there are many other factors which play a greater role: like large farmers migrating to urban areas and either not returning, or when they do return being unable to cultivate adequately. As a result, they will definitely lease out their land and there is an unemployed or underemployed class ever ready to lease in due to the slow pace of industrialisation. Definitely this sort of tenancy arrangements cannot be explained in terms of the traditional Marxist approach as a labour mobilisation process. There is no deliberate strategy involved but it is due to some situational contingencies.

6.7 PREFERENCE FOR TENANTS

In all the study villages the lessors reported that they prefer to lease out to efficient hard working cultivators who have bullocks of their own. Some economists argue that large farmers prefer to lease out land to landless farmers with large family size so that under the compulsion of subsistence requirements they will cultivate intensively to produce more and this they term as a hidden

rent strategy (Bharadwaj and Das, 1975a). But it is found that the OC large farmers have leased out to tenants who have their own land as they are considered to be good cultivators even though the tenants are residents of an adjacent village. Thus in our findings, efficiency in cultivation is what counts for the selection of a tenant, rather than any hidden rent strategy.

6.8 NUMBER OF LESSORS PER TENANT AND NUMBER OF TENANTS PER LESSOR

In the irrigated villages most of the tenants are found to lease in from 3 to 5 lessors, whereas in the non-irrigated village the majority of tenants lease in from 1 to 2 lessors as shown in Table 6.3. Likewise it is found that in the irrigated villages the lessors in some cases lease out land to 3 to 5 tenants. But in Sandhagaon the number of tenants per lessor does not exceed 2 in any case (see Table 6.6). In the irrigated villages lessors are more concerned about the rent income and prefer to lease out in small parcels to many tenants to enforce efficiency in production and also to spread risk. A tenant with a small piece of land will put in immense effort to produce his consumption requirements.

6.9 TERMS AND CONDITIONS OF TENANCY

The tenancy contract is agreed upon for one year at a time though it can be renewed at the completion of one

year. In all the villages the contracts are oral and no official documentation is there. The terms and conditions of the contract cannot be changed in the middle of the contract period and the tenant cannot be evicted before the completion of the period of contract.

Besides these yearly tenancy contracts, in Charapara some cultivators are found to lease in land seasonally mainly for the cultivation of vegetables like potato and brinjal. This we have already discussed. In the non-irrigated village Sandhagaon, a pure lessor reported cultivating potato on his land as he had leased out the land only for the kharif season.

6.9.1 Sharing of Crops

The crop share between the tenant and the lessor is a standard 50:50 in the case of paddy in all the villages. But in the irrigated villages the sharing ratio varies with the type of crops grown. In charapara and Harinababi the crop share is 50:50 in the case of crops like green gram, black gram, horse gram, arhar, jute. But for crops like potato, ground nut, brinjal in the cultivation of which some entrepreneurial function or decision making is required, the sharing ratio differs and it is in favour of the tenant. In the case of potato the share of the lessor is 33.3 per cent, 38 per cent or 25 per cent of the produce as agreed upon in the tenancy contract. In case of brinjal the lessor's share is 38 per cent of the yield. In two cases of brinjal cultivation one in Charapara and one in

Harinababi the rent is fixed cash i.e. Rs.120 per 0.04 acre (per gunth) and the tenant pays the amount in advance and the entire risk is borne by the tenant. This type of differing rent payment arrangement for different crops depending on the entrepreneurial function involved contradicts Rao's (1971) findings in Andhra Pradesh where there is a shift from sharecropping to fixed rent tenancy with increase in the role of decision making. Sharecropping is a flexible system to accommodate such conditional factors by appropriately changing the sharing ratio.³ Interestingly the rent payment for the same crop in the same village differs significantly from tenant to tenant. It depends on the lessor to determine the sharing ratio and the sharecropper usually agrees to it as the demand for leased-in land is more than supply.

In the irrigated villages seasonal tenancy for cultivation of vegetables like potato and brinjal is observed. This is a recent trend and is on the increase. In the case of potato cultivation, the tenancy was more of a cultivation on partnership basis rather than a stereotype landlord and tenant relationship. This type of seasonal tenancy is usually observed among higher caste households and their kin.

The sharing of the crop in almost all the cases takes place in the lessor's farm yard if the lessor or his family members stay in the village. The lessor himself or one of

³ See Newbery (1975: 117-18) for a critique of Rao's arguments.

his family members or relatives supervises the harvest. If there is crop failure then both the tenant and the lessor bear it and there is no guaranteed minimum yield imposed on the tenant by the lessor. And the lessor gets his share as per the contract.

6.9.2 Sharing of Byproduct

Sharing of by-product differs in the three villages. In Charapara the tenant pays half of the water tax and that is why he takes half of the byproducts of paddy, green gram and black gram. In Harinababi the lessor pays the water tax and takes the whole of the by-products. In Sandhagaon the non-resident lessors do not take the byproduct; and few resident lessors take half of the by-products.

6.9.3 Decision Regarding Cropping Pattern

In the irrigated villages all the tenants reported that they take decision regarding the cropping pattern that they would follow on the tenanted land. The lessors usually do not interfere in this regard. But we would like to cite an example which we came across in village Charapara. When we asked the tenant informant who takes the decision regarding the cropping pattern whether the tenant himself or the lessor or jointly, the tenant reported that he takes the decision. In the course of the interview he reported cultivating autumn paddy in non-irrigated tenanted land. We became curious to know the reason for cultivating autumn paddy which does not yield any net income as the yield is

half of the kharif paddy. On questioning, he categorically replied that it was only to please the lessor that he cultivated autumn paddy though it does not pay. From this it can be construed that the threat of eviction is the instrumentality by which the lessor practically enforces what he wants, in this particular instance and also perhaps more generally.

Moreover, in a village the cropping pattern that a cultivator adopts depends to a large extent on what other farmers with land contiguous to his field are cultivating. Suppose, a cultivator is interested in cultivating jute in early kharif i.e. after summer green gram and before kharif paddy, but cannot do it because he has to watch the field when the plants grow to prevent the grazing of cattle as the adjacent field owners who at that time start sowing paddy will not be bothered about the cattle. And specificity of soil for specific crops also restricts choice. Therefore, what the tenants cultivate is very often the cropping pattern that happens to be feasible.

Surprisingly, the large farmer part lessors in Charapara reported that they(lessors) decide the cropping pattern. Thus where the lessors are non-resident and they do not have any interest in cultivation the tenant takes all decisions regarding a cropping pattern. Otherwise the resident cultivator households suggest cropping pattern which the tenants cultivate and usually there is no major difference of opinion and thus is not perceived as a problem and an imposition by the tenant.

In the non-irrigated village the tenants cultivate only kharif paddy and the question of cropping pattern is not of much importance. Only one pure tenant is found to cultivate arhar, horse gram and til in the rabi season. None of the tenants cultivates potato in the rabi season whereas some of the part tenants grow potato on their owned land. Part tenants, when asked about the reason for not cultivating potato on the tenanted land, reported the unsuitability of the land for the purpose. Anyway all the tenants reported that they decide the cropping pattern.

6.9.4 Decision Regarding Input Use and Investment on Land

All the tenants in the three study villages reported that they take all decisions regarding input use like the selection of seed variety, use of manure and fertiliser and pesticides and labour input.

Regarding investment in land all the tenants reported that the lessor takes the decision regarding this. In this context we came across an interesting case in village Charapara. An owner tenant disclosed that he had laboured hard to improve the irrigation facility on the tenanted land but that the lessor did not agree to bear the expenses on the pretext that he (the tenant) had not sought his consent before proceeding. The tenant in retaliation did not give the crop share to the lessor and he was evicted. Thus tenants usually do not take land improving measures and if they take such measures they have to seek the prior consent of the lessor and the crop share or rent is usually

adjusted against the expenses incurred. Land improvement is considered as the sole responsibility of the lessor as in our study in Charapara 33 per cent of the PLs are even found to undertake fixed investment in land as shown in Table 7.7.

6.9.5 Sharing of Input Cost

All the tenants reported that the lessors do not share in input cost, except in the seasonal tenancy for the cultivation of vegetables where the landowner bears half of the cost and the crop is divided in the same ratio after the payment of rent to the landowner for his ownership. But in the irrigated villages as the wage for harvesting in the case of paddy, black gram and green gram is paid in terms of harvested crop on a share rate basis it can be interpreted as cost sharing by the land owner. Harvesting includes cutting the plant or uprooting and then carrying it to the farmyard and keeping it in heaps. In case of paddy if a labourer cuts 80 bundles he takes 10 bundles and in green gram and black gram the labourer gets about one sixth of the uprooted plants. In threshing also payment is made in kind. In Charapara the lessor pays 50 per cent of the water tax and that is why takes half of the byproduct. Besides these cases, the lessors do not share in input cost in any way. But sometimes the tenant borrows from the lessor to incur cultivation expenses. This we will discuss under linked tenancy contracts in Chapter VIII.

6.10 DURATION OF TENANT'S ASSOCIATION WITH THE LESSOR

Table 6.8 contains information on the duration of association of the tenant with his present major lessor, the years he has been a tenant and his experience in cultivation. The table shows that the years with the present major lessor is less in Charapara and Harinababi than the number of years they have been tenants. In the irrigated villages shortening of leases is observed to extract surplus. Most of the tenants reported that there is a tendency in the village to shorten the leases and when asked about the motive behind it the tenants reported that 'to enforce efficiency'. Few households reported the reason as 'in fear of tenancy legislation'.

Moreover, in Sandhagaon and Charapara it is observed that the phenomenon of the landless pure tenants leasing in land is a comparatively recent phenomenon as the large farmers prefer to lease out to tenants who have their own land and have sufficient experience in cultivation. As the supply of leased-in land is increasing because of emigration, landless labourers get a chance to lease in and they have proved themselves to be good cultivators. Moreover, their standard of living has improved because of different government poverty alleviating measures like loans for buying productive assets and the construction of an one roomed asbestos pacca house for each family under Indira Awas Yojana, and an increase in wages. They are thus able to buy bullocks and are interested in leasing in land.

6.11 REASONS FOR EVICTION

The reasons for eviction have been collected from the tenants. In the irrigated villages the majority of tenants reported 'dissatisfied with the tenant's yield' as the most important reason for eviction (see Table 6.9). In Charapara one tenant reported that the landowner sometimes asks for unpaid labour services and if the tenant does not agree to this, he is evicted. Even a casual labourer cited this reason for his eviction a few years back.

In the non-irrigated village Sandhagaon 2 tenants reported 'in fear of tenancy legislation' as the cause of eviction and some reported 'to lease out to another favourable tenant'. One tenant reported that he had leased in 3 acres of land and had been cultivating it for the last 20 years but that the lessor asked for a loan of Rs.10,000 by keeping the land as mortgage. As he(the tenant) could not advance that, he was evicted. In this type of mortgaging the arrangement is that when the landowner repays the loan he will get back his land and the lender will get the yield of land as his interest. In the irrigated villages the frequency of eviction of tenants is on the increase whereas it has remained the same in the non-irrigated village as reported by the tenants. But eviction of tenant for the purpose of resumption of land for self-cultivation is rare.

6.12 TESTING OF MODELS ON TENANCY

Following the neoclassical tradition certain models

have been constructed by economists to explain the existence of tenancy. Bliss and Stern (1982) have developed a model following the capital stock adjustment principle and emphasize that tenancy is nothing but a resource adjustment mechanism. Likewise Pant (1983) tries to determine to what extent a household's resource endowments influence the extent of land leased in by it. He considers multiple regression models and seeks to explain variation in land leased in by the sample households in terms of their differences in their resource endowments.

We attempt to test these models with data collected from our three study villages. And we suggest an alternative model incorporating some additional explanatory variables which increases the predictive power of the model.

The correlation coefficients of human and bullock resource endowment with operational holding and leased-in area according to farmer category and villagewise are given in Table 6.10. No categorywise difference is clearly discernible from data. We attempt to test the Bliss and Stern model by taking into consideration all the households in each village.

The regression equation to test Bliss and Stern's model is:

$$NALI = A + B_1 OLANDT + B_2 ADULTM + B_3 BULLV$$

Where NALI = Net area leased in (in acres), or

area leased in minus area leased out

OLANDT = Land area owned by the household

(in acres)

ADULTM = Adult active male members in a household

BULLV = Value of Bullocks possessed by a household (in Rs.)

The results of regression analysis are presented in Table 6.11. The regression coefficients in the case of OLANDT and BULLV are found to be in conformity with hypothesized signs in all the villages and are significant. The coefficient of OLANDT is negative implying that net area leased in decreases with increase in owned land area. The coefficient of BULLV is positive indicating that net leased in area increases with increase in value of bullock owned. The sign of regression coefficient in the case of ADULTM is expected to be positive. But it is estimated to be negative in the irrigated villages and positive in the non-irrigated village Sandhagaon. But the relationship is not significant in any of the villages.

Now we try to estimate the regression equation based on Pant's model of share tenancy which is:

$$\text{NALIW} = A + B_1 \text{OLANDTW} + B_2 \text{DEPEND} + B_3 \text{BULLVW}$$

Where NALIW = Net area leased in per worker (in acres)

OLANDTW = Owned land per worker in a household (in acres)

DEPEND = Ratio of non-workers to workers in a household

BULLVW = Value of bullock owned per worker (in Rs.)

The results of least-squares regression are given in Table 6.12. It is clear from the table that in all the study villages households with a large number of workers relative to land ownership will lease in more land. Moreover, leased in area is positively correlated with bullock ownership. Thus, it is concluded that in imperfectly functioning rural markets, tenancy serves as a resource adjustment mechanism by adjusting the cultivated area of a household to its resource endowments of bullock and human labour. The dependency ratio (DEPEND) is found to be negatively correlated to the area leased in by the household in all the villages. This finding is quite interesting because it refutes the hypothesis that the family with relatively more dependents lease in more land. The reason for such a relationship is not far to seek. Income from agriculture is not the only source of income in rural areas. Moreover, a nuclear family structure is observed in the case of land poor households and the dependency ratio is considerably less for them.

We have constructed a model of our own to explain the leasing behaviour as observed in our study villages. The regression equation is:

$$\text{NALI} = A + B_1 \text{OLANDT} + B_2 \text{ADULTM} + B_3 \text{NONWORK} + \\ B_4 \text{BULL} + B_5 \text{CEXPHEAD} + B_6 \text{LABOR}$$

Where NONWORK = Number of non-workers in a household

BULL = Number of bullocks possessed by a household

CEXPHEAD = Experience in cultivation (in no. of

years)

LABOR = 1 if any member of the household does manual
work

= 0 otherwise.

Other variables are defined as previously mentioned.

Table 6.13 contains the regression results. It is to be noted that the explanatory power (the value of R square) of the independent variables in explaining variation in net area leased in has increased. The coefficient of the additional explanatory variable LABOR is positive as expected in all the villages. It implies that those who usually do manual work in the field tend to lease in more land. The net area leased in is found to increase with increase in experience in cultivation in Charapara and Sandhagaon.

The most important shortcoming of this sort of analysis of leasing behaviour is that by taking net area leased in as the area leased in minus area leased out as the dependent variable, the presumption is that the leasing-in and leasing-out behaviour are dependent on the same set of explanatory variables. This is fallacious. The fact is that the lessors and lessees clearly belong to two different sets of farm households and their decision to lease in or lease out are based on different socio-economic considerations. Those who are leasing in are found to be marginal and small farmers having no supplementary income except farm income, which includes income from cultivation and wages. Thus they are leasing in land to earn income for

their subsistence. The lessors are found to be semi-absentee and they have other sources of income like remittances and salary. As there are no able adults in the family to supervise cultivation, they lease out. Srivastava (1989a) and Nabi (1985) have also tested the Bliss and Stern model with empirical data. The usual criticisms levelled against neoclassical approach to share tenancy also applies to these models.

In more explicit manner, Matoussi and Nugent (1989) try to estimate a regression equation by taking incidence of share contract as the dependent variable and proxies for transaction cost as explanatory variables with the aim of examining the importance of transaction costs in determining tenancy.⁴ They conclude that transaction cost considerations are potentially useful and applicable in the determination of tenancy contracts. But interestingly, while discussing the four environmental changes that affected the contractual choice in the area they note that "Because of the emigration of secondary workers from farm families, reliable supervisory labour was becoming particularly scarce (p.149)." Transaction cost may be the

⁴ In their model (Matoussi and Nugent, 1989: 153) the incidence of share contract is measured by the dummy variable ISHARE which is equal to unity if share contracts are practised on at least a part of the farm, and is zero, otherwise. ISHARE is the dependent variable and the explanatory variables are total endowments of land (ST), the endowment of irrigated land (SI), the farm's ownership of hydraulic equipment (EH) and AA, CS, EM representing three different principal occupations of the landowner, namely, agriculturist, civil servant and emigrant of any occupation; MPROP and MW which represent relatively large endowments of labour by the landowning household and the working household, respectively, and CRW, a dummy variable for the substantial provision of credit to working household.

obvious and transparent reason for an increase in tenancy. But the explanation is too simplistic and the crux of the matter lies beneath the transaction cost i.e. in migration and how to explain it. The ahistorical neoclassical explanation is ill-equipped to deal with this type of problem.

6.13 CONCLUSION

We here attempt to summarise our findings to examine them against the viewpoints set out at the beginning. Our findings give some support to certain of the Marxist propositions on share tenancy. Firstly, share tenancy is found to be a compulsive involvement in market transaction from the point of view of both the lessee and the lessors. Secondly, share tenancy is seen to be a method of surplus appropriation rather than a mechanism to increase allocative efficiency. Thus, shortening of leases, eviction of tenants due to dissatisfaction with tenant's yield and high rent are distinguishing features of unrecorded and illegal tenancy as observed in the study villages. If minimisation of transaction or supervision cost is the primary motive to lease out, then the resident cultivators are expected to lease out instead of self-cultivating their land. But no such leasing out by resident large farmers is observed in the study villages.

In order to explain the existence of share tenancy the historical development of the areas is to be considered. It is important to know how the landless class was created and

why there is no industrialisation or transfer of surplus labour to the non-farm sector. Why agriculture remains to be overcrowded and land man ratio is adverse and getting worse. Thus a particular production relation does not manifest on a clean slate, the historical antecedents and the role of the state play a dominant role in structuring a production relation. This we have not been able to do in this thesis.

We have already shown in Chapter IV and our findings in this chapter support the fact that tenants are not a homogeneous class but there is considerable differentiation among them.

But, we stress that we do not find in our village a pure rentier class, or a class of large landlords renting out land to a subject peasantry. This particular Marxist view is clearly not supported. Nor can the Marxist approach, as exemplified by, say Pearce (1983) be supported. The role of certain situational contingencies, of certain macro features and the role of migration need analytical attention of a kind that Marxist treatment has tended not to give. We find little evidence of any hidden rent strategy: a notion which some Marxist writers have put forward.

TABLE 6.1

Percentage Area under Share Tenancy
Villagewise

Village	Total Operational Area Acres	Area Under Tenancy Acres	% of Total
Charapara	98.46	18.62	18.91
Harinababi	52.38	6.12	11.68
Sandhagaon	43.62	17.90	41.04

TABLE 6.2

Percentage Area under Part and Pure Tenancy
Villagewise

Village	Area Under Tenancy Acres	Area under Part Tenancy Acres	% of Total	Area under Pure Tenancy Acres	% of Total
Charapara	18.62	7.36	39.53	11.26	60.47
Harinababi	6.12	6.12	100.00	-	-
Sandhagaon	17.90	12.40	69.27	5.50	30.73

TABLE 6.3

Tenancy Particulars: Land Owned, Land Leased in and Lessor Type

Category	Sl. No	Land Owned		Land Leased-in Mortgage Operational			No. of Lessor's Holding Lessors	Lessor's Type	Lessor's Income Source	
		I	NI	I	NI	NI				
		(Acres)	(Acres)	(Acres)	(Acres)	(Acres)				
CHARAPARA										
Owner Tenant	1	0.84	0.20	-	1.16	-	3.04	4	R	C
	2	0.20	1.96	1.00	0.00	0.64	3.72	1	NR	S
	3	1.08	0.56	0.68	0.32	-	4.40	4	NR	S
Average		0.71	0.91	0.56	0.49	0.21	3.72	3.00		
Tenant Owner		0.48	1.00	3.00	1.00	0.00	8.96	4	NR	S
Pure Tenant	5	-	-	2.20	2.00	-	6.40	5	NR-4,R-1	S,PL
	6	-	-	1.50	0.48	-	3.48	3	NR-2,R-1	S,PL
	7	-	-	2.00	-	-	4.00	1	*PWD	-
	8	-	-	0.16	-	-	0.32	1	*PWD	-
	9	-	-	2.64	-	-	5.28	3	NR-1,AV-2	C&S,C
Average		0.00	0.00	1.70	0.50	0.00	3.90	2.60		
Total Avg.		0.29	0.41	1.46	0.55	0.07	4.40	2.89		
HARINABABI										
Owner Tenant	1	1.00	-	-	0.52	-	2.52	3	NR	S
	2	2.50	2.00	0.40	0.00	-	7.80	1	vill. land	-
	3	1.50	1.20	-	0.20	-	4.40	1	R	C
Average		1.67	1.07	0.13	0.24	0.00	4.91	1.67		
Tenant Owner	4	0.72	0.28	1.50	1.00	-	5.72	2	NR	S
	5	-	0.20	1.00	1.50	-	3.70	6	NR	S
Average		0.36	0.24	1.25	1.25	0.00	4.71			
Total Avg.		1.14	0.74	0.58	0.64	0.00	4.83	2.60		
SANDHAGAON										
Owner Tenant	1	-	5.00	0.00	1.00	-	6.00	1	R	S
	2	-	2.00	0.00	1.00	-	3.00	2	R, NR	S
	3	-	1.50	0.00	1.00	-	2.50	1	AV	C&S
Average		0.00	2.83	0.00	1.00	0.00	3.83	1.33		
Tenant Owner	4	0.00	0.48	0.00	2.50	0.00	2.98	1	R	
Pure Tenant	5	-	-	-	1.00	-	1.00	4	AV	C
	6	-	-	-	2.00	-	2.00	1	R	Pension
	7	-	-	-	2.00	-	2.00	1	AV	S
	8	-	-	-	2.00	-	2.00	2	NR, AV	C&S
	9	-	-	-	1.40	-	1.40	3	AV	C
	10	-	-	-	4.00	-	4.00	1	R	Shop
	11	-	-	-	0.00	2.00	2.00	1	NR	S
	Average		0.00	0.00	0.00	1.77	0.29	2.06	1.86	
Total Avg.		0.00	0.82	0.00	1.63	0.18	2.63	1.64		

Notes: R-resident, NR-non resident, AV-adjacent village, C-cultivation, S-salary

*PWD: Land leased out by the Public Works Department

TABLE 6.4

Reasons for Leasing in: Frequency of Responses

Reasons for Leasing in	CHARAPARA			HARINABABI		SANDHAGAON			TOTAL
	OT	TO	PT	OT	TO	OT	TO	PT	
No alternative job opportunity	3	1	5	1	2	1	1	7	21
Bullock adjustment		-	-	-	-	2	-	-	2
To consolidate holding	-	-	-	1	-	-	-	-	1
To increase operational holding	-	-	-	1	-	-	-	-	1
Total	3	1	5	3	2	3	1	7	25

TABLE 6.5

Net Income, Rent Paid, Net Receipt, Imputed Value of Own Labour and
Total Farm Income of Part Tenants from Tenanted Land
(Rupees per Acre)

Category	Sl. No.	Farmer Class	Net Income	Rent Payment	Net Receipt	Imputed Value of Own Labour	Total Farm Income
					4-5		6+7
	1	2	3	4	5	6	7
							8
CHARAPARA							
Owner Tenant	1	SF	537	694	(157)	358	201
	2	SF	398	591	(193)	48	(145)
	3	SF	1,216	827	389	138	527
Tenant Owner	1	MDF	536	519	17	144	161
HARINABABI							
Owner Tenant	1	SF	2,811	1,565	1,246	1,382	2,628
	2	SF	873	669	204	431	635
	3	MDF	4,495	2,430	2,065	-	2,065
Tenant Owner	1	SF	1,484	1,203	281	-	281
	2	MDF	1,210	779	431	462	893
SANDHAGAON							
Owner Tenant	1	SF	1,154	1,204	(50)	204	154
	2	SF	328	816	(488)	1,190	702
	3	MDF	(141)	868	(1,009)	1,190	182
Tenant Owner	1	SF	(832)	326	(1,158)	-	(1,158)

Note: Figures in parentheses are negative values.

TABLE 6.6

Leasing out Particulars

Village\ Category	Sl. No.	Owned		Land Leased Out		Opera- tional Holding (Acres)	No. of Lessee's Lessees	Lessee's Owned Land	Lessee's Resi- dence	Lessee's Caste	Lessor's Income Source
		I (Acres)	NI (Acres)	I (Acres)	NI (Acres)						
CHARAPARA											
OC	1	5.00	5.00	0.00	0.48	14.52	1	Y	AV	G	C
	2	4.00	4.00	0.00	0.48	11.52	1	Y	R	G	C
	3	3.00	3.00	0.60	2.20	5.60	5	N	R,AV	SC,ST	C
PL	1	3.00	2.00	3.00	2.00	*0.28	4	N	R	SC	C&RM
	2	0.24	0.04	0.24	0.04	-	2	N	R	SC	RM
	3	1.40	1.40	1.40	1.40	-	2	N	AV	ST	Pension
	4	2.00	0.72	2.00	0.72	-	3	N	AV	ST	S&RM
	5	0.48	-	0.48	-	-	1	N	R	SC	RM
	6	0.60	0.60	0.60	0.60	-	2	Y	R	G	S
	7	0.40	0.04	0.40	0.04	-	1	Y	R	G	RM
	8	0.32	0.72	0.32	0.72	-	1	Y	R	G	RM
	9	1.20	1.44	1.20	1.44	-	1	Y	R	G	RM
Total	12	21.64	18.96	10.24	10.12	31.64	24				
Average		1.80	1.58	0.85	0.84	2.64	2.00				
HARINABABI											
PL	1	0.48	0.28	0.48	0.28	-	2	Y	R	G	RM
	2	0.56	0.32	0.56	0.32	-	2	Y	R	G	RM
	3	0.48	0.24	0.48	0.24	-	2	Y	R	G	RM
Total	3	1.52	0.84	1.52	0.84	0.0	6				
Average		0.51	0.28	0.51	0.28	0.0	2.00				
SANDHAGAON											
PL	1	-	1.50	-	1.50	-	2	N	R	SC	RM
	2	-	3.00	-	3.00	-	2	Y	R	G	RM
	3	-	5.00	-	5.00	-	2	N	R	SC	S
	4	-	1.88	-	**3.00	-	1	N	R	SC	S
	5	-	5.00	-	5.00	-	2	N,Y	R	SC,G	S
	6	-	1.50	-	1.50	-	1	N	R	SC	shop
Total	6	0.00	17.88	0.00	16.00	0.00	10				
Average		0.00	2.98	0.00	2.67	0.00	1.67				

Notes: *Has leased in 0.26 acres of land to cultivate vegetables.

**Has acquired 1.12 acres of land as mortgage by advancing Rs.20,000.

G - general, SC - scheduled caste, ST - scheduled tribe:immigrant from tribal areas

C - cultivation, S - service, RM - remittance

Y=yes, N=no

TABLE 6.7

Reasons for Leasing out: Frequency of Responses

Reasons for Leasing out	CHARAPARA			HARINABABI		SANDHAGAON		All Villages	
	OC	PL	% of Total	PL	% of Total	PL	% of Total	Lessors	% of Total
*No able adult to supervise	-	4	44.4	2	66.7	1	16.7	7	33.3
No bullock Power	-	3	33.3	-	-	3	50.0	6	28.6
Difficult to get Farm Servant	-	-	-	-	-	1	16.7	1	4.8
Difficult to Supervise	-	1	11.1	-	-	1	16.7	2	9.5
Small Landholding	-	1	11.1	1	33.3	-	-	2	9.5
To Reduce Weeding	1	-	-	-	-	-	-	1	4.8
Distant Land	2	-	-	-	-	-	-	2	9.5
Total	3	9	100.0	3	100.0	6	100.0	21	100.0

Note: *Head of household is non-resident being in employment in distant urban area.

TABLE 6.8

Tenant's Association with the Lessor

Category	Sl. No.	Years with Present Lessor	Years Tenant	Experience in Cultivation
CHARAPARA				
OT	1	6	10	10
	2	1	12	20
	3	2	8	10
TO	4	3	25	25
PT	5	2	2	2
	6	2	4	4
	7	4	4	4
HARINABABI				
OT	1	1	5	12
	2	2	10	16
	3	5	5	34
TO	4	2	5	30
	5	5	8	20
SANDHAGAON				
OT	1	3	3	50
	2	10	10	10
	3	10	30	30
TO	4	15	15	25
PT	5	2	6	6
	6	2	7	7
	7	10	10	10
	8	1	5	5
	9	2	2	2
	10	4	4	4

TABLE 6.9

Reasons for Eviction as Reported by Tenants: Frequency of Responses

REASONS FOR EVICTION	CHARAPARA			HARINABABI			SANDHAGAON			Total
	OT	TO	PT	OT	TO	OT	TO	PT		
Resumption of land for self-cultivation	-	1	-	-	1	1	-	-	3	
Dissatisfied with the tenant's yield	3	1	3	2	1	1	1	2	14	
In fear of tenancy legislation	-	-	-	-	-	-	-	2	2	
To lease out to another favourable tenant	-	-	-	1	-	-	-	3	4	
Ask for cash advance for mortgaging land	-	-	-	-	-	1	-	-	1	
Distribution of joint family land	-	-	-	-	-	-	-	1	1	
Conflict over sharing capital investment on land	1	-	-	-	-	-	-	-	1	
Conflict with the tenant family	-	-	-	-	-	-	-	1	1	
Ask the tenant for unpaid labour service	1	-	-	-	-	-	-	-	1	

TABLE 6.10

Correlation of Human and Bullock Resource Endowment with
Operational Holding and Net Area Leased in
Cultivating Households

Variables Villages\ Categories	OPHOLDT TOTALME	OPHOLDT ADULTM	OPHOLDT BULLV	NALI TOTALME	NALI ADULTM	NALI BULLV
CHARAPARA						
OC	0.09	0.24	0.39	0.33	0.02	-0.06
PRT	-0.81***	-0.71	-0.98**	-0.77	-0.63	-0.99#
PT	0.68***	0.51	0.70***	0.68***	0.51	0.70***
TOTAL	0.04	0.24	0.46**	0.19	-0.01	-0.32***
HARINABABI						
OC	0.36***	0.38***	0.77#			
PRT	0.74***	0.16	0.64	-0.07	-0.62	0.4
TOTAL	0.41**	0.34***	0.73#	-0.09	-0.05	0.09
SANDHAGAON						
OC	0.37	0.28	0.19			
PRT	0.93**	0.89***	0.99*	-0.08	-0.13	-0.33
PT	0.66***	0.72***	0.51	0.66***	0.72***	0.51
TOTAL	0.60*	0.66*	0.59*	0.023	-0.02	-0.21

Notes: Pearsonian Correlation Coefficients are given

* indicates 1% level of significance(1-tailed)

** indicates 5% level of significance(1-tailed)

*** indicates 10% level of significance(1-tailed)

indicates to 0.1% level of significance(1-tailed)

TABLE 6.11

Results of Least-Squares Regression Analysis
Net Area Leased in
All Households

Village	Dependent Variable	Explanatory Variables	B	S.E.(B)	T-Value	Sig(T)	R Square	F-Value (k-1,n-k d.f.)	Sig(F)
CHARAPARA	NALI	OLANDT	-0.41	0.095	-4.27	0.000	0.38	7.98 (3,39)	0.000
		ADULTM	-0.37	0.304	-1.20	0.236			
		BULLV	0.000919	0.000212	4.33	0.000			
		Constant	0.17	0.550	0.31	0.756			
HARINABABI	NALI	OLANDT	-0.43	0.113	-3.79	0.001	0.57	7.9 (3,18)	0.001
		ADULTM	-0.14	0.171	-0.83	0.417			
		BULLV	0.000825	0.000177	4.66	0.000			
		Constant	-0.50	0.457	-1.09	0.292			
SANDHAGAON	NALI	OLANDT	-0.76	0.096	-7.93	0.000	0.77	32.45 (3,29)	0.000
		ADULTM	0.27	0.170	1.61	0.118			
		BULLV	0.000631	0.000108	5.83	0.000			
		Constant	-0.61	0.311	-1.95	0.060			

TABLE 6.12

Results of Least-Squares Regression Analysis
Net Area Leased in per Worker
All Households

Villages	Dependent Variable	Explanatory Variables	B	S.E.(B)	T-Value	Sig(T)	R Square	F-Value (k-1,n-k d.f.)	Sig(F)
CHARAPARA	NALIW	OLANDTW	-0.4	0.103	-3.91	0.000	0.37	6.99 (3,35)	0.000
		DEPEND	-0.00125	0.156	-0.01	0.994			
		BULLYW	0.000945	0.000217	4.358	0.000			
		Constant	-0.14	-0.14	-0.26	0.798			
HARINABABI	NALIW	OLANDTW	-0.48	0.112	-4.31	0.000	0.66	10.18 (3,16)	0.000
		DEPEND	-0.19	0.096	-1.99	0.065			
		BULLYW	0.00106	0.000213	4.99	0.000			
		Constant	-0.08	0.241	-0.34	0.738			
SANDHAGAON	NALIW	OLANDTW	-0.78	0.082	-9.5	0.000	0.84	52.45 (3,29)	0.000
		DEPEND	-0.22	0.056	-3.94	0.000			
		BULLYW	0.000598	0.00008733	6.84	0.000			
		Constant	0.58	0.199	2.93	0.007			

TABLE 6.13

Results of Least-Squares Regression Analysis
Net Area Leased in
All Households

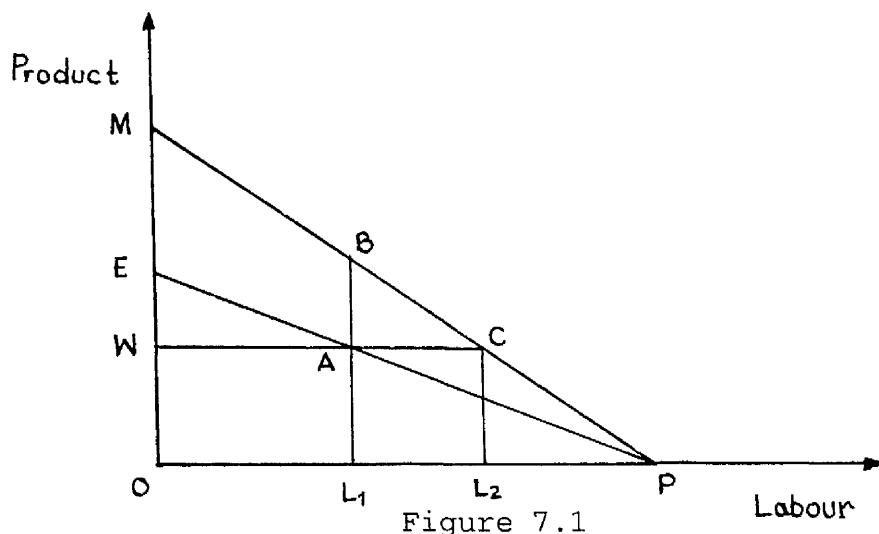
Villages	Dependent Variable	Explanatory Variables	B	S.E.(B)	T-Value	Sig(T)	R Square	F-Value (k-1,n-k d.f.)	Sig(F)
CHARAPARA	NALI	OLANDT	-0.29	0.125	-2.35	0.024	0.51	6.13 (6,36)	0.000
		ADULTM	-0.51	0.293	-1.75	0.090			
		NONWORK	0.07	0.174	0.39	0.696			
		BULL	0.92	0.525	1.75	0.089			
		GEXPHEAD	0.05	0.041	1.32	0.195			
		LABOR	1.93	0.958	2.01	0.052			
		Consant	-0.30	0.731	-0.41	0.687			
HARINABABI	NALI	OLANDT	-0.41	0.125	-3.28	0.005	0.61	3.9 (6,15)	0.015
		ADULTM	-0.15	0.199	-0.76	0.462			
		NONWORK	-0.12	0.143	-0.85	0.411			
		BULL	1.93	0.462	4.19	0.000			
		GEXPHEAD	-0.00986	0.019	-0.51	0.617			
		LABOR	0.26	0.522	0.51	0.620			
		Consant	-0.18	0.834	-0.21	0.836			
SANDHAGAON	NALI	OLANDT	-0.82	0.091	-9.00	0.000	0.83	21.69 (6,26)	0.000
		ADULTM	0.10	0.225	0.42	0.674			
		NONWORK	-0.07	0.089	-0.736	0.468			
		BULL	0.42	0.263	1.60	0.120			
		GEXPHEAD	0.06	0.025	2.17	0.039			
		LABOR	0.74	0.431	1.72	0.097			
		Consant	-0.04	0.446	-0.09	0.931			

CHAPTER - VII
SHARE TENANCY AND EFFICIENCY
AND ITS DYNAMICS
(SURVEY FINDINGS)

7.1 INTRODUCTION

A scrutiny of the theoretical literature on the efficiency aspect of tenancy reveals that there are two broad approaches to this question. One is the neoclassical approach which emphasizes the allocative efficiency implication of tenancy in a static setup. Among the neoclassicals there clearly emerges two different views. The economists (Bardhan and Srinivasan, 1971; Bell and Zusman, 1976) following the Marshallian tradition argue that share tenancy is inefficient. On the other hand, those economists (Newbery, 1974, 1975a, 1975b; Stiglitz, 1974) who adhere to the Cheungian viewpoint - exponents of the so-called 'new' neoclassical view stress that tenancy can be an efficient arrangement under conditions of risk and uncertainty. In contrast to the neoclassical approach, Marxists are concerned with the efficiency implication of tenancy in a dynamic context and argue that tenancy being interlinked with usury, labour and trading markets facilitates surplus extraction and thus by diverting accumulated surplus into these unproductive channels causes stagnation in agriculture.

8.2 EXPOSITION OF NEOCLASSICAL ARGUMENT



The difference between the Marshallian and the Cheungian viewpoint on the efficiency implications of tenancy can be well understood with the help of simple algebra and geometry.

To begin with the Marshallian argument, assume a perfectly certain and competitive world. There is a lessor who gives a plot of land to a tenant with the agreement that the tenant will pay a fraction r of the total output as rent in each year. Assume that labour is the only factor of production. In figure 7.1 MP depicts the marginal product curve of the tenant's labour. Let EP be so drawn that at each point its height equals to $(1-r)$ th times the height of MP curve. This curve is nothing but the marginal earning curve of the tenant showing his additional earning from each additional unit of labour after payment of rent.

Now coming to cost consideration of the tenant, the marginal cost is assumed to be the wage which is the

opportunity cost of labour which remains constant in a competitive market. Measured in farm output the wage W is OW . Here the assumption is that the tenant can hire or sell labour in the market at the competitive wage rate W . Thus the tenant will maximise his earnings when his marginal product will equal his marginal cost i.e. at the point of intersection of MP and WC curves. In the diagram the tenant will use labour upto OL_1 units. He will have a gross income equal to area MOL_1B out of which he will pay rent equal to area $MBAE$ and wage WOL_1A . Thus his net earnings from tenanted land will be AEW . If the tenant had sold his labour in the market his earnings would have been OL_1AW . Thus the extra earning AEW that he is getting by leasing in land is nothing but present from the landlord (Cheung, 1969: 47).

Now suppose the landlord decides to cultivate the land himself with hired labour instead of leasing out to the tenant. For the owner operator the earning curve is the MP curve and the marginal cost curve is WC . Thus the landlord will hire OL_2 units of labour which is more than the labour used under tenant cultivation. Now the gross income will be $OMCL_2$. His net income after payment of wages is MWC . Thus under share tenancy the producer loss or welfare loss to the society was BAC . Thus according to Marshall under share tenancy the use of variable inputs will be sub-optimal leading to inefficient production and loss of social product.

In the above analysis it is assumed that the land

leased in by the tenant is fixed. If this assumption is relaxed, it is clearly in the interest of the tenant to lease in from several lessors as long as the marginal productivity of land is positive, as he is earning some residual income over and above his opportunity cost. Thus in equilibrium the marginal product of land would be driven down to zero (Johnson, 1950).¹

Cheung argues that at equilibrium the share tenant's income cannot be more than his alternative earnings i.e. his income in the wage market. If it is more, then it can not be an equilibrium situation. Hence, there will be an excess supply of labourers willing to be tenants. Thus Cheung concluded that the lessor can extract the residual earnings from the tenant without apprehending that the tenant will leave him. In particular Cheung argued that the lessor can regulate the rental ratio, enforce desirable input use and can decide the number of tenants to whom to lease out. With these three instrument variables, the lessor will drive down the earnings of the tenant to his

¹ Bell (1977: 319) explains this with simple algebra. Assume that the tenant produces output Q with land H and labour L . Assume that the rental ratio r is specified and the wage rate is w . Now the tenant's objective is to maximise income from leased in land:

$$\text{Max } Y = (1-r)Q - wL \quad (1)$$

with respect to H and L where $Q = f(H,L)$

Then the first order conditions for equilibrium are

$$(1-r)\frac{\partial F}{\partial H} = 0 \quad (2)$$

$$\text{and } (1-r)\frac{\partial F}{\partial L} = w \quad (3)$$

Thus equation (2) implies that in equilibrium the marginal productivity of land will be zero.

opportunity cost i.e. his wage earnings and then only equilibrium will be reached.

It is argued that Cheung is wrong in believing that excess supply cannot be consistent with equilibrium (Basu, 1984: 130). If the lessor has no instrument at his disposal to extract surplus, then excess supply will persist and nevertheless the condition will be considered as equilibrium. Likewise, in credit rationing models, the credit is rationed even though there is excess demand for credit to avoid adverse selection because of asymmetry in information and credit rationing is perfectly compatible with equilibrium. Thus the conventional belief in the equality of supply with demand as the condition for market equilibrium is no more valid.²

Now we attempt to formalise Cheung's model with the help of algebra following Basu's procedure (Basu, 1984: 128). In contrast to Marshall's model, in Cheung's analysis the lessor not the tenant is the active agent who tries to maximise his income with the assumption that the input contracts can be enforced without cost. Thus in Marshall's model the transaction cost is infinity as it is the tenant who decides the intensity of input use and in Cheung's model transaction cost is zero.

² See Stiglitz and Weiss (1981) for credit rationing models. They stress that: "The law of supply and demand is not in fact a law, nor should it be viewed as an assumption needed for competitive analysis. It is rather a result generated by the underlying assumption that prices have neither sorting nor incentive effects. The usual result of economic theorizing that prices clear markets, is model specific and is not a general property of market-unemployment and credit rationing are not phantasms."

Now assume that a lessor leases out his land to a tenant who does not have any other land. The output, X , from his land depends on the amount of labour used, L .

$$\text{Thus } X = X(L) \quad X'(L) \geq 0, \quad X''(L) < 0 \quad (1)$$

Let r be the lessor's share of the output or the rental share. According to Cheung the lessor decides r and also specifies the amount of labour input, L . The constraint on the lessor is to see that the tenant at least gets his opportunity cost that is his earnings in the alternative labour market i.e. $(1-r) X(L)$ must be at least equal to wL . Otherwise, the tenant will quit the lessor. Thus the landlord's objective function is

$$\text{Max } r X(L),$$

with respect to (r, L)

subject to the constraint

$$(1-r) X(L) = wL. \quad (2)$$

Forming the Lagrangian

$$Z = r X(L) - \lambda [wL - (1-r) X(L)],$$

The first order conditions for equilibrium are arrived at by differentiating Z with respect to r , L and λ , and setting these equal to zero.

$$\frac{\partial Z}{\partial r} = X(L) - \lambda X(L) = 0$$

$$\frac{\partial Z}{\partial L} = r X'(L) - \lambda w + \lambda (1-r) X'(L) = 0$$

$$\frac{\partial Z}{\partial \lambda} = - [wL - (1-r) X(L)] = 0$$

These imply

$$\lambda = 1 \quad (3)$$

$$X'(L) = w \quad (4)$$

$$r = \frac{X(L) - wL}{X(L)} \quad (5)$$

Since $X'(L) = w$ i.e. wage rate is equal to the marginal product of labour, labour is optimally used in this case.

Even, if we solve the constraint (2) for r and substitute it in the objective function, we get

Max $X(L) - wL$

with respect to L

which is nothing but the objective function of the capitalist farmer. Thus a lessor who leases out land on sharecropping basis earns the same profit if he self-cultivates the land on capitalist line. Therefore, under share tenancy there is no loss in output and share tenancy is as efficient as owner cultivation if the lessor is capable of enforcing the required input intensity and the rental ratio.

Johnson (1950) categorically mentioned the three techniques which if adopted by the landlord will lead to efficiency under tenant cultivation. The techniques are namely; specification of inputs, cost sharing and shortening of leases.

7.3 TESTABLE HYPOTHESES

Here we attempt to select some hypotheses from these alternative theories on share tenancy and try to test them against empirical data collected from our three study villages. The testable hypotheses as selected from three different views are as follows:

'Marshallian' Hypotheses:³

Hypothesis 1 (M1): Inputs and output per acre on tenanted land will be lower than on owned land of the same fertility.

Hypothesis 2 (M2): The rental share is determined by custom and it is not affected by the variation in soil fertility and incidence of irrigation.

Hypothesis 3 (M3): There is no clearcut view on the impact of input cost sharing by the lessor on the rental ratio.

Hypothesis 4 (M4): Share tenants will attempt to lease in land from several lessors.

'Cheungian' Hypotheses:

Hypothesis 1 (C1): There is no difference between inputs and output per acre on tenanted and on owned land.

Hypothesis 2 (C2): The rental share depends on land type and soil quality. The better quality of land is associated with higher rental ratio.

Hypothesis 3 (C3): If the lessor shares in input cost, the rental share accruing to the lessor also increases.

Hypothesis 4 (C4): Each tenant will lease in from a single lessor.

³ See Bell (1977) for a detailed account of these hypotheses. Bell terms the 'Cheungian' hypotheses as the 'new school'.

Marxian Hypotheses

Hypotheses 1 (E1): Lessors lease out land in small units to a large number of tenants to ensure maximum labour use under the threat of survival (Bhaduri, 1983b).

Hypothesis 2 (E2): Lessors advance loans to tenants at exorbitant interest rates and thereby combine leasing with usury to extract surplus from the deficit peasant households (Bhaduri, 1983a).

Hypothesis 3 (E3): The lessor resists innovation as it will increase the income of the tenant and his economic power in the village community may therefore be lessened (Bhaduri, 1983a).

Hypothesis 4 (E4): Surplus households instead of investing their surplus in productive channels prefer to invest in rack renting, usury, trading, labour tying etc. and in most cases interlink the transactions to increase their grip over the poor peasants. Thus, surplus being diverted to unproductive channels perpetuates backwardness (Bharadwaj, 1979).

7.4 IMPACT OF TENANCY ON CROP YIELD

To examine the impact of tenancy on crop yield, a large number of empirical studies have already been undertaken in different regions of India. There is considerable variation in the methodology as well as the conclusions arrived at from these studies. Several studies in India document the fact that tenancy has no adverse effects on efficiency. These include studies in Gujarat by

Vyas (1970), in Andhra Pradesh by C.H.H. Rao (1971) and Parthasarathy and Prasad (1978), Bliss and Stern (1982) and Sharma and Dreze (1990) in U.P. But studies by Chattopadhyay (1979) in West Bengal and Bell (1977) in Bihar suggest the opposite.

The efficiency implication of tenancy can be tested by comparing the input and output on owned and tenanted land or among farmer categories like owners, part tenants and pure tenants. This comparison can be made in three different ways:

(1) Between owners as a class and tenants as a class. Tenants can further be divided into part tenants and pure tenants.

(2) In order to cancel the effects of farm size on productivity if the tenancy status and farm size are correlated, the impact of tenancy can be better studied by studying the yield performance of tenants and owners belonging to the same landholding size.

(3) There are many other factors like access to credit and input availability that will affect the yield performance. In order to control for these variables, it is suggested that there should be a comparison of the productivity between owned and tenanted land of the same part tenant, so that all other things remain constant, and the impact of tenancy can be studied.

Following the first two methods, economists apply the 't' test and those who follow the third method use a paired 't' test to derive statistically valid results. As our data

are collected from three small villages, we do not have sufficient number of observations that will enable us to apply these parametric tests. Therefore, we have attempted some non-parametric tests to reach some plausible conclusions. Out of these three methods of comparing efficiency on owned and tenanted land, we selected the third method as the most appropriate method.

To begin with we give some tables regarding input and output of the owners and tenants following the methodology outlined above. We are well aware of the averaging errors that this type of data presentation suffers from.

Findings regarding crop yield as per different categories like OC, PRT and PT have already been discussed in crop yield sub-section in Chapter V on farm economy. Here we present the data on input and output of farmers according to tenancy status controlling for farm size. As there are not enough observations on the marginal farmer and large farmer class, we have taken only the small farmers and medium farmers into consideration.

First we compare with respect to a particular crop i.e. kharif paddy and then we consider net income and cost of cultivation for all crops taken together.

Table 7.1 shows that in the case of SFs, OCs cultivate HYV paddy on a larger proportion of their cultivated area in comparison to PRTs and PTs. But in case of MDFs, PRTs are found to cultivate more HYV paddy than OCs. This is because the MDF PRTs have the resources to purchase inputs like HYV seed and fertiliser. Moreover, they are in a

position to take risk in cultivating HYV where the variation in yield is more than with traditional variety. A comparison of total average yield of kharif paddy shows that SF PRTs produce more than SF OCs. But the MDF OCs produce more than MDF PRTs in all the villages. Thus tenancy is found to be 'efficient' if we compare between small farm categories. It seems plausible that under compulsion to meet their subsistence consumption they produce more.

Then an attempt is made to compare the cost of cultivation and net income per acre of cultivated area of kharif paddy (Table 7.2). We find that the PRTs use more inputs and therefore their net income is less in comparison to the OCs under the two farmer classes and in all villages. As the tenants use their own labour, they use more labour in comparison to the OCs and as imputed value of labour has been included under operational cost, their cost of cultivation is comparatively more.

Now we compare cropping intensity, cost of cultivation and net income per acre of gross cropped area for all crops taken together. Table 7.3 shows that the cropping intensity is less for PRTs than OCs in all the villages and for the two farmer classes excepting in Charapara where the SF PRTs have greater cropping intensity.

The gross income in the case of SFs and MDFs is found to be more for PRTs than OCs in Harinababi and Sandhagaon. But the reverse is the case in Charapara. Thus tenants are found to be 'inefficient' in the advanced village because

they lack the resources to adopt a diversified cropping pattern and to take advantage of the improved technology that is possible in irrigated farming.

So far we have discussed the yield performance of tenants as a class and owners as class. Now we attempt to examine the efficiency implication of tenancy by comparing yield performance on owned and tenanted land of part tenants. The yield performance on owned and tenanted land of part tenants can again be studied at two levels i.e. for one particular crop and all the crops grown by the cultivator taken together and total farm income. Here we first compare the difference in package of practice and productivity with respect to the staple cereal crop paddy which all the cultivators grow.

Table 7.4 contains information on the seed variety of paddy that the PRTs cultivate on their owned and tenanted land. It emerges that in Charapara the percentage of leased-in area (63.6%) under HYV is larger than the percentage of owned land (50.0 %) under HYV. Also in Harinababi the percentage of area under HYV is more in the case of leased-in land. But in the non-irrigated village only about 9 per cent of leased-in land is under HYV but a significantly higher proportion (51%) of owned land is under HYV variety. In the irrigated villages the threat of eviction in the event of low yield prompts the tenants to cultivate HYV paddy whose yield is more.

Then we compare the use of yield stimulating inputs like FYM and chemical fertiliser in the cultivation of

kharif paddy on owned land and tenanted land. We find that (Table 7.5) in Charapara the use of FYM in terms of rupees per acre of owned land is on an average Rs.198 whereas on tenanted land it is only about Rs.15. Likewise in Harinababi and in Sandhagaon there is also significant difference in use of FYM on owned and tenanted land as shown in the table. But the use of fertiliser in Rs./acre is more in the case of tenanted land by comparison with the owned land in all the villages. Tenants use more FYM on their owned land and less fertiliser because of the belief that use of chemical fertiliser degrades the land in the long run. In the case of tenanted land they are least bothered about the soil degradation and their prime aim is to get an augmented yield to satisfy the lessor for the renewal of the lease contract and to meet their consumption needs.

The yield of kharif paddy is found to be higher in the case of owned land in Charapara whereas it is lower in Harinababi and Sandhagaon. In Harinababi the part tenants are efficient farmers as their motive behind leasing-in is to consolidate their holding in a compact block and to increase operational holding. In Sandhagaon it is more due to averaging error as in the case of a MDF the yield on tenanted land is significantly lower which depresses the average figure.

Having discussed about the seed variety, input use and yield in the case of kharif paddy on owned and tenanted land, now we attempt to analyse the overall cropping

intensity, operational cost, gross income, net income and net returns per rupee invested on owned and leased in land for all crops taken together. Table 7.6 shows that in the case of almost all the owner tenants the cropping intensity is higher on owned land than on leased-in land but in the case of tenant owners the cropping intensity is more on tenanted land. In Sandhagaon no part tenants cultivate potato on tenanted land and they cultivate only paddy in the kharif season. As a result the cropping intensity is one in all cases.

When we compare the net returns per rupee invested it is found that in Charapara it is higher in the case of owned land than that of leased-in land but the reverse happens in the case of Harinababi and Sandhagaon. In Harinababi the part tenants have leased in non-irrigated land and cultivate cash crops like jute, groundnut and vegetables as a result the yield is more.

With regard to three techniques to enforce efficiency as propounded by Johnson (1950), our findings are that threat of eviction is the instrument variable by which the lessor enforces the required intensity of input use. The threat of survival compels the tenants to put in adequate efforts to get an increased yield. Regarding cost sharing by the lessor it is found that in the irrigated village Charapara there is cost sharing between the lessor and the tenant and a new type of seasonal leasing-in on partnership basis for cultivation of vegetables is coming up. But in Sandhagaon there is no cost sharing by the lessor. With

regard to shortening of leases, this is much observed in the irrigated villages as a means of enforcing efficiency.

7.5 RESULTS OF NON-PARAMETRIC TESTS

An attempt has been made to test the difference in yield performance on owned and tenanted land by applying the Mann-Whitney test. The owned land and tenanted land have been studied for different groups as shown in Table 7.8 to Table 7.12. First the difference in output performance has been studied for a particular crop i.e. local paddy of traditional variety. Then the difference has been assessed for all crops taken together. The variables that we have considered as the index of yield performance include

YIELDGAV = Value of yield per acre of gross cropped area
(in Rs./acre)

YIELDNAV = Value of yield per acre of net sown area (in
Rs./acre)

CROPIN = Cropping intensity i.e. ratio of gross cropped
area to net sown area

PROFITGA = Profit per acre of gross cropped area (in
Rs./acre)

PROFITNA = Profit per acre of net sown area (in Rs./acre)

IORATIO = Input output ratio i.e. the ratio of profit to
cost of cultivation

For studying input use for paddy we have included

LABORGA = Cost of human labour per acre of gross cropped
area (in Rs./acre)

COSTGA = Total operational cost per acre of gross cropped area (in Rs./acre)

The results of the Mann-Whitney test for input and output on owned and tenanted land in cultivation of local paddy in kharif are presented in Table 7.8. The observed significance level (2-tailed probability) is large for all of the variables in Charapara and Harinababi, and the hypothesis that the input and output variables have the same distribution on owned and tenanted land is not rejected. In the case of non-irrigated village Sandhagaon the significance level is small for variables PROFITGA, IORATIO and COSTGA, therefore, the hypothesis of equality is rejected. Thus in Sandhagaon tenancy is found to be inefficient.

Then an attempt is made to apply Mann-Whitney test to compare the yield performance on owned and tenanted land by considering all the crops grown by the cultivators taken together and classifying the owned and tenanted land into different groups. In Charapara it is found that the 2-tailed probability is large for most of the variables excluding value of yield per acre of net cropped area (YIELDNAV) and profit per net cropped area (PROFITNA) (see Table 7.9). Thus there is no conclusive evidence of inefficiency of tenancy. In village Harinababi the observed significance level is small in the case of variables YIELDGAV, CROPIN and PROFITGA (Table 7.10) and thus the hypothesis of equality can be rejected. But for YIELDNAV, PROFITNA and IORATIO the significance level is large so

that the hypothesis of equality is not rejected. Thus the evidence is mixed and not conclusive. In the non-irrigated village Sandhagaon the significance level for all the variables is large excepting the cropping intensity (CROPIN) and thus there is no significant difference between yield performance on owned and tenanted land.

Then we try to compare the yield performance on owned and tenanted land of the same part tenants and the observations are paired data and we apply Wilcoxon Matched-pairs Signed-rank Test. The results are presented in Table 7.12. The table shows that the level of significance is found to be large for almost all of the variables in three villages and thus the hypothesis of equality is not rejected.

From our analysis we conclude that there is no conclusive evidence that share tenancy is 'inefficient' if one considers allocative efficiency in a static set-up. However, tenancy can be considered 'inefficient' inasmuch as the part tenants are found to use less FYM on tenanted land than that on owned land. But they use more of fertiliser on tenanted land to get an increased yield at the cost of land degradation caused to the land in the long run. Therefore, the inefficiency implication of tenancy should be considered in a dynamic framework. The argument that tenants produce more under the threat of eviction and survival and that is why tenancy is efficient is not a valid argument. Because efficiency cannot be sustained under a compulsive mechanism if no real incentives are

there for the tenants to foresee. Under high rental share for the land-owner, we do not see any real incentives for the tenant to cultivate land on a sharecropping basis.

Our reservations are that while analysing the efficiency aspect of tenancy, the type of land the tenant possesses and the type of land he leases in should be taken into consideration as the cropping pattern and crop yield to a large extent depend on that. As our survey is not a large scale survey our results cannot be conclusive, yet the conclusions can be considered as tentative, paving the way for further research work to be taken in this regard. Now we turn to the long-run impact of tenancy on the farm economy.

7.6 LONG-TERM IMPACT OF TENANCY: INVESTMENT, ACCUMULATION AND HUMAN RESOURCE DEVELOPMENT

In this sub-section we try to analyse the fixed investment undertaken by tenants and owner cultivators. In Table 7.7 the fixed investment on owned land as per farmer category and class is presented. Fixed investment here includes purchase of agricultural equipment and land improvement measures like improving irrigation facility and land levelling. No tenant households reported investing on tenanted land except for a landless pure tenant. The table shows that in Charapara the OC class on an average invests Rs.990 per annum and the PRT invests Rs.250, the PT invests Rs.80 and the PL spends Rs.183. In Harinababi on an average an OC invests Rs.510 and the PRT invests Rs.600 and the PL

invests nothing. In Sandhagaon an OC invests Rs.600 whereas a PRT invests Rs.200 and the PTs and PLs invest nothing. In Charapara and Sandhagaon the proportion of investing households is highest in case of OCs but in Harinababi it is highest for PRTs.

Thus if the area under sharecropping were transferred to owner cultivation investment in agriculture would no doubt increase. The tenants after paying the high rent are left with a meagre sum of money that is even inadequate for meeting their consumption needs. If the tenanted land were self-cultivated, there would be no rent to be paid and cultivators would have investible surplus and consequently investment in land would increase. In this sense tenancy discourages productive investment and is undoubtedly inefficient.

It is also argued that when share tenancy is associated with rack-renting, short leases, no cost-sharing and self-exploitation of tenant households, it adversely affects the human resource development (Murty, 1987). Tenants are usually underfed and malnourished. This causes gradual depreciation in their labour power. This also affects the vitality and work ability of next generation and their progeny. During our investigation, some land-owners complained that the labourers now-a-days are lacking the strength and vigour to work hard.

7.7 TESTING MARXIAN HYPOTHESES

7.7.1 Examining Bhaduri's Hypothesis

Bhaduri considers share tenancy as a labour process and asserts that the lessor will lease out land in small parcels to a large number of tenants to extract surplus. In the advanced village Charapara this mechanism to extract surplus is operative. The lessors are found to lease out to many tenants and in small parcels.

Bhaduri also argues that the exchange mechanism can be used as an instrument variable to reinforce the power relations in a village economy by perpetuating backwardness. According to Bhaduri (1973) the lessor combines usury income with rent income to subjugate the poor perpetually under his control. But our survey discloses that no lessor household has interest income and most of the private moneylenders found in the study villages are salary holders or shopkeepers rather than large farmers. The lessors are found to lend to the tenants at their hour of need and also charge high interest rates but usury as the main mode of exploitation by the lessors is quite absent. Moreover, the lessors do not represent the conventional landlord class having rent as their sole income. Rather the lessors are marginal and small farmers and the major source of their income is salary and remittances.

That the landlord discourages technical innovation is not found in the villages under study. Rather, a new type of seasonal leasing-in on input cost sharing basis is emerging in which the land-owner becomes a partner.

7.7.2 Examining Bharadwaj's View

According to Bharadwaj, in backward agriculture the agricultural surplus instead of being reinvested in agriculture productively is diverted to unproductive channels like usury and rent seeking activities as long as a class of deficit households continues to exist. It is to be noted that in Orissan villages few large farmers are now-a-days found. Due to the law of inheritance and disintegration of the joint family system the landholding size has considerably decreased. As a result the surplus households as Bharadwaj portrays them are quite non-existent in rural areas.

In wet cultivation of rice, agriculture is not remunerative and large farmers in the villages even depend on remittances from their sons to meet expenses for cultivation. Moreover, in the irrigated villages no household is found that leases out land to earn rent income even if it is able to self-cultivate it. The households lease out only when there is no other option but to lease out. In Sandhagaon the salary holders even if they are residents in the village prefer to lease out as cultivation of paddy yields no net income in non-irrigated conditions. Again, due to the spread of banking facilities in villages, the surplus households save whatever surplus income they have in the banks where they earn interest income. The farmers are found to buy bonds like 'krishi vikash Patras' whose value will be doubled after five years. Thus the surplus households are not interested in investing in usury

as it is very difficult to recover a loan once advanced. If a man in need approaches them for a loan and if they can see that there is possibility to recover the loan from him as he is his tenant or his labourer then they advance loans out of mercy. But no households see money-lending as a business and a source of income.

This is not to deny that moneylenders as a class never existed. But the fact is that the class has disappeared due to certain restrictive legislations preventing recovery of private loan and interest charged and more importantly due to the disintegration of the large landed class caused by the sub-division of family land among the heirs. Moreover, Orissa suffers far less severely from natural calamities like drought, flood, cyclone and hailstorm because of improvement in irrigation facilities and construction of dams. Due to the frequent occurrence of severe natural calamities in past years, the rural poor had to depend on the propertied class for loans perpetually and private moneylending was a brisk business. Thus the ecological change has brought about a change in the rural power structure.

7.8 RESULTS OF HYPOTHESES TESTING

Here we summarise the results of our hypothesis testing with regard to efficiency of share tenancy. The micro evidence on Marshallian and Cheungian hypotheses are as follows:

- (1) Our study provides no conclusive evidence that input

and output per acre on tenanted land will be lower than on owned land.

(2) The rental share is determined by custom and it is not affected by the quality or fertility of land.

(3) If the lessor shares in input cost, the rental share accruing to the lessor increases.

(4) The lessees are found to lease in from many lessors.

The last three points are recapitulation of our findings already discussed in Chapter VI.

The inefficiency implication of tenancy lies in the dynamic context i.e. tenancy discourages investment and accumulation and adversely affects human resource development.

The testing of Marxian hypotheses with our micro level data provides some support to Bhaduri's assertion that share tenancy is a method of labour extraction under the threat of survival.

7.9 SHARE TENANCY AND ITS DYNAMICS

While studying share tenancy the social setting or the context in which it is observed should be clearly defined. The kind of share tenancy that we observe in our study villages is nothing but subsistence tenancy undertaken by a poor peasant as a survival strategy. To explain this the social setting should be studied carefully and linked to the phenomenon of tenancy. In a labour surplus and land scarce economy like Orissa, where there is no alternative earning opportunity for poor peasants, share tenancy turns

out to be a source of livelihood for the land poor peasants. Thus the labour surplus and land scarcity and lack of job opportunity are to be invoked to account for the existence of tenancy. For this the historical development of the society or the evolution of share tenancy in an historical perspective needs to be attempted. This we have not been able to pursue in this thesis.

With regard to share tenancy in transition, we here attempt to recapitulate our findings in Chapter VI. It is observed that in the irrigated villages tenancy is in constant flux. The resourceful farmers are now-a-days leasing in land on a partnership basis and are sharing in cost on equal terms. In this case of leasing-in between the same farmer class, the relationship is one of equal status in contrast to the unequal status found in traditional tenancy. On the contrary in the non-irrigated village, the landowners are asking for an advance by mortgaging the land near the tenant. This type of usufructuary mortgage is on the increase in the non-irrigated village.

In the irrigated village a differing sharing ratio for different crops is observed. For the crops where some entrepreneurial decision making is required the sharing ratio is in favour of the tenant as he bears all the risk and cost of cultivation. Thus rental share is adjusted to capitalise on productivity gains.

The eviction of tenants is observed more in the advanced village Charapara and gradually the leases are being shortened by the lessors to extract surplus.

In the irrigated villages most of the lessors are semi-absentee, whereas in the non-irrigated village Sandhagaon there are some resident lessors.

Though sharecropping is legally prohibited in Orissa, it exists and persists and clearly shows a tendency to increase. The number of emigrants from the villages are on the increase. Therefore, share tenancy will definitely increase in future.

7.10 SHARE TENANCY AND A BACKWARD AGRICULTURE

The type of share tenancy that we observe in our study villages do not show any extra-economic coercion involved in the contract. That is why it cannot be termed as a feudalistic feature. Still it contains features that clearly show that the tenants are exploited to the point of leaving with them only what is necessary for their reproduction. The rent is too high, the lessor does not share in input cost. There is no security of tenure. The lease is oral and not recorded. Tenancy legislation is violated. The tenant is charged a high interest rate if he borrows from the lessor. Sometimes the tenant repays in terms of labour at a lower wage rate. The farm servants and attached labourers loosen the solidarity of the labourer class and their bargaining strength is lowered. The farm servants are all immigrants from tribal and jungle areas.

There is no tendency for 'commercial' tenancy to emerge. But the features that we have identified are that of a 'backward agriculture' in which capitalist tendencies are not wholly developed.

TABLE 7.1

Area Cultivated of Kharif Paddy (HYV and Local)
According to Farmer Class and Tenancy Status

Category	Area Culti- vated Acres	Area under HYV Acres	% of Total	Yield HYV Qtls/Acre	Yield Local Qtls/Acre	Total Avg. Yield Qtls/Acre
CHARAPARA						
Small Farmer						
OC	0.64	0.56	87.5	10.0	6.2	9.5
PRT	1.21	0.54	44.5	12.2	9.2	10.5
PT	1.54	0.10	6.5	13.2	8.6	8.9
Medium Farmer						
OC	2.36	0.82	34.6	12.0	8.8	9.9
PRT	2.64	2.00	75.8	7.6	7.4	7.5
PT	1.92	0.00	0.0	0.0	13.1	13.1
HARINABABI						
Small Farmer						
OC	1.43	0.52	36.4	13.2	10.7	11.6
PRT	1.17	0.20	17.1	15.1	9.6	10.6
Medium Farmer						
OC	2.16	0.41	19.2	15.2	10.2	11.1
PRT	2.35	0.48	20.4	11.5	9.0	9.5
SANDHAGAON						
Small Farmer						
OC	3.00	0.67	22.2	6.5	3.4	4.1
PRT	2.81	0.36	12.8	13.3	7.3	8.1
PT	4.00	0.00	0.0	0.0	1.2	1.2
Medium Farmer						
OC	4.50	0.00	0.0	0.0	8.5	8.5
PRT	6.00	4.00	66.7	8.0	7.2	7.7

TABLE 7.2

Cost of Cultivation and Net Income of Kharif Paddy
According to Farmer Class and Tenancy Status

Village\ Class\ Category	Gross Income Rs./Acre	Ope- rational Cost Rs./Acre	Net Income Rs./Acre	Net Returns per Rupee Invested
CHARAPARA				
Small Farmer				
OC	2122	688	1433	2.08
PRT	2289	1087	1202	1.11
PT	2015	1044	971	0.93
Medium Farmer				
OC	2182	812	1370	1.69
PRT	1777	1092	684	0.63
PT	2721	796	1924	2.42
HARINABABI				
Small Farmer				
OC	2471	1008	1463	1.45
PRT	2296	945	1350	1.43
Medium Farmer				
OC	2392	902	1490	1.65
PRT	2111	923	1188	1.29
SANDHAGAON				
Small Farmer				
OC	1074	1985	-911	-0.46
PRT	1745	1902	-157	-0.08
PT	1735	1083	652	0.60
Medium Farmer				
OC	1826	1765	61	0.03
PRT	1690	1983	-293	-0.15

TABLE 7.3

Cropping Intensity and Cost of Cultivation and Net Income
Per Acre of Gross Cropped Area
According to Farmer class and Tenancy Status

Village\ Class\ Category	Cropping Intensity	Operational Cost Rs.\Acre	Gross Income Rs.\Acre	Net Income Rs.\Acre	Net Returns per Rupee Invested
CHARAPARA					
Small Farmer					
OC	1.25	539	1894	1355	2.51
PRT	1.59	728	1619	891	1.22
PT	1.56	782	1612	830	1.06
Medium Farmer					
OC	1.59	675	1637	963	1.43
PRT	1.53	507	1047	540	1.07
PT	1.20	550	1724	1174	2.14
HARINABABI					
Small Farmer					
OC	1.63	829	1821	992	1.20
PRT	1.24	1226	2555	1329	1.08
Medium Farmer					
OC	1.65	790	1754	963	1.22
PRT	1.51	818	1872	1054	1.29
SANDHAGAON					
Small Farmer					
OC	1.04	2103	1439	-664	-0.32
PRT	1.02	1460	1887	426	0.29
PT	1.00	1083	1735	652	0.60
Medium Farmer					
OC	1.20	1584	1737	153	0.10
PRT	1.01	2026	1770	-255	-0.13

TABLE 7.4

Owned and Leased in Land: Area under HYV and Local Kharif Paddy
Part Tenants

Category	Area Cultivated Owned Acres	Area under HYV Acres	% of Owned Area	Area Cultivated Leased in Acres	Area under HYV Acres	% of Leased in Area
CHARAPARA						
SF	2.12	0.82	38.68	1.52	0.82	53.95
MDF	0.48	0.48	100.00	2.16	1.52	70.37
Total	2.60	1.30	50.00	3.68	2.34	63.59
HARINABABI						
SF	2.50	-	-	1.00	0.60	60.00
MDF	3.20	0.96	30.00	1.50	-	-
Total	5.70	0.96	16.84	2.50	0.60	24.00
SANDHAGAON						
SF	3.98	0.60	15.08	4.46	0.48	10.76
MDF	5.00	4.00	80.00	1.00	-	-
Total	8.98	4.60	51.22	5.46	0.48	8.79

TABLE 7.5

Yield of Kharif Paddy and Input Use on Owned and Leased-in Land
Part Tenants

Village\ Class	Yield	Yield	FYM	FYM	Fertiliser	Fertiliser
	Owned Land	Leased in Land	Owned Land	Leased in Land	Owned Land	Leased in Land
	Qtls./Acre	Qtls./Acre	Rs./Acre	Rs./Acre	Rs./Acre	Rs./Acre
CHARAPARA						
SF	13.12	6.90	198.11	9.88	12.00	-
MDF	8.25	7.35	200.00	50.69	3.40	112.50
Total	12.22	7.16	198.46	14.97	6.82	66.03
HARINABABI						
SF	9.17	14.04	210.00	6.54	0.00	73.00
MDF	9.23	10.00	138.75	5.08	6.03	-
Total	9.21	11.62	170.00	5.72	3.12	29.20
SANDHAGAON						
SF	7.64	7.35	457.29	5.76	4.04	29.15
MDF	1.28	8.00	210.00	21.88	108.13	125.00
Total	4.10	7.47	319.60	8.56	24.45	46.70

TABLE 7.6

Cropping Intensity, Cost of Cultivation and Net Income
Owned and Leased-in Land of Part Tenants

Village\ Category	Sl. No.	Farmer Class	Cropping Intensity Owned	Cropping Intensity Leased	Ope. Cost		Gross Income		Net Income		Net Returns	
					Rs/Acre Owned	Rs/Acre Leased	Rs/Acre Owned	Rs/Acre Leased	Rs/Acre Owned	Rs/Acre Leased	Per Rupee Invested Owned	Per Rupee Invested Leased
CHARAPARA												
Owner Tenant	1	SF	2.00	1.66	816	1,107	2,272	1,645	1,456	537	1.78	0.49
	2	SF	1.54	1.56	564	783	1,174	1,182	610	398	1.08	0.51
	3	SF	1.61	1.24	649	438	1,876	1,654	1,227	1,216	1.89	2.77
Tenant Owner	1	MDF	1.32	1.63	521	501	1,071	1,038	551	536	1.06	1.07
HARINABABI												
Owner Tenant	1	SF	2.00	1.00	604	2,427	1,905	5,238	1,301	2,811	2.15	1.16
	2	SF	1.25	1.00	864	616	1,700	1,489	836	873	0.97	1.42
	3	MDF	1.58	1.00	838	1,114	1,588	5,609	750	4,495	0.90	4.04
Tenant Owner	1	SF	1.00	1.08	3,678	1,577	4,695	3,061	1,017	1,484	0.28	0.94
	2	MDF	1.32	1.54	625	818	1,758	2,028	1,133	1,210	1.81	1.48
SANDHAGAON												
Owner Tenant	1	SF	1.04	1.00	2,143	1,629	2,089	2,783	(54)	1,154	-0.02	0.71
	2	SF	1.05	1.00	2,111	1,679	2,301	2,007	190	328	0.09	0.20
	3	MDF	1.02	1.00	2,055	1,876	1,777	1,735	(278)	(141)	-0.14	-0.08
Tenant Owner	1	SF	1.00	1.00	2,773	1,860	2,075	1,028	(698)	(832)	-0.25	-0.45

TABLE 7.7
Fixed Investment in Agriculture
According to Tenancy Status and Farmer Class

Village\ Category\ Class	Total No. of House- holds	No. of Investing House- holds	% of Total	Total Amount of Investment Rs.	Average Invest- ment Rs.
CHARAPARA					
Owner cultivator					
SF	2	1	50	500	500
MDF	6	4	67	2,100	525
LF	5	5	100	7,300	1,460
Total	13	10	77	9,900	990
Part Tenant					
SF	3	2	67	500	250
MDF	1	-	-	-	-
Total	4	2	50	500	250
Pure Tenant					
MF	1	-	-	-	-
SF	2	-	-	-	-
MDF	2	1	50	80	80
Total	5	1	50	80	80
Pure Lessor					
MF	5	1	20	50	50
SF	3	1	33	300	300
MDF	1	1	100	200	200
Total	9	3	33	550	183
GRAND TOTAL	31	16	52	11,030	689
HARINABABI					
Owner Cultivator					
MF	2	1	50	250	250
SF	6	2	33	1,000	500
MDF	6	2	33	1,300	650
Total	14	5	36	2,550	510
Part Tenant					
SF	3	2	67	1,700	850
MDF	2	2	100	700	350
Total	5	4	80	2,400	600
Pure Lessor					
MF	3	-	-	-	-
GRAND TOTAL	22	9	41	4,950	550
SANDHAGAON					
Owner Cultivator					
MF	1	-	-	-	-
SF	3	1	33	200	200
MDF	1	1	100	1,000	1,000
Total	5	2	40	1,200	600
Part Tenant					
SF	3	1	33	200	200
MDF	1	-	-	-	-
Total	4	1	25	200	200
Pure Tenant					
Pure Tenant	6	-	-	-	-
Pure Lessor					
Pure Lessor	6	-	-	-	-
GRAND TOTAL	21	3	14	1,400	467

TABLE 7.8

Results of Mann-Whitney U-Wilcoxon Rank Sum W Test
Yield Performance on Owned and Tenanted Land
In Cultivation of Paddy (Traditional Variety)

Villages	Variables	Mean Rank Owned	Mean Rank Tenanted	Z Score	2-tailed Probability	U	W
CHARAPARA (12,6)	YIELDGAV	9.67	9.17	-0.19	0.850	34	55
	PROFITGA	9.67	9.17	-0.19	0.850	34	55
	IORATIO	9.83	8.83	-0.37	0.708	32	53
	LABORGA	10.08	8.33	-0.66	0.511	29	50
	COSTGA	9.17	10.17	-0.37	0.708	32	61
HARINABABI (17,2)	YIELDGAV	9.59	13.50	-0.93	0.352	10	27
	PROFITGA	9.47	14.50	-1.20	0.232	8	29
	IORATIO	9.35	15.50	-1.46	0.144	6	31
	LABORGA	10.53	5.50	-1.20	0.230	8	11
	COSTGA	10.41	6.50	-0.93	0.352	10	13
SANDHAGAON (7,2)	YIELDGAV	4.29	7.50	-1.47	0.142	2	15
	PROFITGA	4.00	8.50	-2.05	0.040	0	17
	IORATIO	4.00	8.50	-2.05	0.040	0	17
	LABORGA	5.29	4.00	-0.64	0.521	5	8
	COSTGA	6.00	1.50	-2.05	0.040	0	3

Notes: Figures in parentheses indicate number of observations on owned and tenanted land respectively.

TABLE 7.9

Results of Mann-Whitney U-Wilcoxon Rank Sum W Test
Yield Performance on Owned and Tenanted Land
Village-Charapara(Irrigated)

Variables	Group 1 Owned	Group 2 Tenanted	Mean Rank Owned	Mean Rank Tenanted	Z Score	2-tailed Probability	U	W
	OC (13)	PRT,PT (4,5)						
YIELDGAV			13.15	9.11	-1.44	0.151	37	82
YIELDNAV			14.31	7.44	-2.44	0.015	22	67
CROPIN			13.08	9.22	-1.37	0.171	38	83
PROFITGA			13.00	9.33	-1.30	0.193	39	84
PROFITNA			13.77	8.22	-1.97	0.049	29	74
IORATIO			12.69	9.78	-1.04	0.301	43	88
	PRT (4)	PRT,PT (4,5)						
YIELDGAV			8.00	6.56	-0.62	0.537	14	32
YIELDNAV			8.00	6.56	-0.62	0.540	14	32
CROPIN			8.50	6.33	-0.93	0.354	12	34
PROFITGA			8.50	6.33	-0.93	0.355	12	34
PROFITNA			8.75	6.22	-1.08	0.280	11	35
IORATIO			7.75	6.67	-0.46	0.643	15	31
	OC (13)	PT (5)						
YIELDGAV			10.23	7.60	-0.94	0.349	23	38
YIELDNAV			11.00	5.60	-1.92	0.055	13	28
CROPIN			10.69	6.40	-1.53	0.126	17	32
PROFITGA			9.77	8.80	-0.35	0.730	29	44
PROFITNA			10.31	7.40	-1.04	0.301	22	37
IORATIO			9.85	8.60	-0.44	0.657	28	43
	OC,PRT (13,4)	PRT,PT (4,5)						
YIELDGAV			15.00	10.67	-1.37	0.169	51	96
YIELDNAV			15.88	9.00	-2.18	0.029	36	81
CROPIN			15.06	10.56	-1.43	0.153	50	95
PROFITGA			15.00	10.67	-1.37	0.169	51	96
PROFITNA			15.65	9.44	-1.97	0.049	40	85
IORATIO			14.59	11.44	-1.00	0.319	58	103

Notes: U is the number of times a value in group 1 precedes a value in group 2.
W is the sum of the ranks for the group with the smaller number of observations
Figures in parentheses indicate number of observations in each group

TABLE 7.10

Results of Mann-Whitney U-Wilcoxon Rank Sum W Test
 Yield Performance on Owned and Tenanted Land
 Village-Harinababi(Irrigated)

Variables	Group 1 Owned	Group 2 Tenanted	Mean Rank Owned	Mean Rank Tenanted	Z Score	2-tailed Probability	U	W
	OC (14)	PRT (5)						
YIELDGAV			8.29	14.80	-2.22	0.026	11	74
YIELDNAV			8.86	13.20	-1.48	0.139	19	66
CROPIN			12.07	4.20	-2.69	0.007	6	21
PROFITGA			8.50	14.20	-1.94	0.052	14	71
PROFITNA			9.21	12.20	-1.02	0.309	24	61
IORATIO			9.07	12.60	-1.20	0.229	22	63
	OC,PRT (14,5)	PRT (5)						
YIELDGAV			10.89	18.60	-2.17	0.030	17	93
YIELDNAV			11.42	16.60	-1.46	0.145	27	83
CROPIN			14.39	5.30	-2.56	0.010	11.5	26.5
PROFITGA			10.95	18.40	-2.10	0.036	18	92
PROFITNA			11.63	15.80	-1.17	0.240	31	79
IORATIO			11.85	16.00	-1.24	0.213	30	80

Notes: U is the number of times a value in group 1 precedes a value in group 2.
 W is the sum of the ranks for the group with the smaller number of observations
 Figures in parentheses indicate number of observations in groups.

TABLE 7.11

Results of Mann-Whitney U-Wilcoxon Rank Sum W Test
Yield Performance on Owned and Tenanted Land
Village-Sandhagaon(Non-Irrigated)

Variables	Group 1 Owned	Group 2 Tenanted	Mean Rank Owned	Mean Rank Tenanted	Z Score	2-tailed Probability	U	W
	OC (5)	PRT,PT (4,6)						
YIELDGAY			8.00	8.00	0.00	1.000	25.0	40.0
YIELDNAV			8.4	7.8	-0.25	0.806	23.0	42.0
CROPIN			11.10	6.45	-2.26	0.024	9.5	55.5
PROFITGA			5.40	9.30	-1.59	0.111	12.0	27.0
PROFITNA			5.40	9.30	-1.59	0.111	12.0	27.0
IORATIO			5.80	9.10	-1.35	0.178	14.0	29.0
	PRT (4)	PRT,PT (4,6)						
YIELDGAY			10.38	6.35	-1.63	0.103	8.5	41.5
YIELDNAV			9.63	6.65	-1.21	0.228	11.5	38.5
CROPIN			10.38	6.35	-2.04	0.042	8.5	41.5
PROFITGA			6.50	7.90	-0.57	0.572	16.0	26.0
PROFITNA			6.50	7.90	-0.57	0.572	16.0	26.0
IORATIO			6.50	7.90	-0.57	0.572	16.0	26.0
	OC (5)	PT (6)						
YIELDGAY			8.00	8.00	0.00	1.000	15.0	30.0
YIELDNAV			6.20	5.83	-0.18	0.855	14.0	31.0
CROPIN			7.50	4.75	-1.49	0.135	7.5	37.5
PROFITGA			4.40	7.33	-1.46	0.144	7.0	22.0
PROFITNA			4.40	7.33	-1.46	0.144	7.0	22.0
IORATIO			4.60	7.17	-1.28	0.201	8.0	23.0
	OC,PRT (5,4)	PRT,PT (4,6)						
YIELDGAY			11.28	8.85	-0.94	0.347	33.5	101.5
YIELDNAV			11.17	8.95	-0.86	0.391	34.5	100.5
CROPIN			13.00	7.00	-2.45	0.014	18.0	117.0
PROFITGA			8.11	11.70	-1.39	0.165	28.0	73.0
PROFITNA			8.11	11.70	-1.39	0.165	28.0	73.0
IORATIO			8.33	11.50	-1.22	0.221	30.0	75.0

Notes: U is the number of times a value in group 1 precedes a value in group 2.
W is the sum of the ranks for the group with the smaller number of observations
Figures in parentheses indicate number of observations in each group.

TABLE 7.12

Results of Wilcoxon Matched-pairs Signed-ranks Test
Yield Performance on Owned and Tenanted Land of Part Tenants
All Villages

Villages	Variables	Cases	Mean Rank	Cases	Mean Rank	Z Score	2-Tailed Probability
		T < 0	T < 0	T > 0	T > 0		
CHARAPARA	YIELDGAV	4	2.50	0	0.00	-1.83	0.068
	YIELDNAV	3	3.00	1	1.00	-1.46	0.144
	CROPIN	3	3.00	1	1.00	-1.46	0.144
	PROFITGA	3	3.00	1	1.00	-1.46	0.144
	PROFITNA	3	3.00	1	1.00	-1.46	0.144
	IORATIO	2	3.00	2	2.00	-0.37	0.715
HARINABABI	YIELDGAV	2	2.00	3	3.67	-0.94	0.345
	YIELDNAV	2	3.00	3	3.67	-0.94	0.345
	CROPIN	3	4.00	2	1.50	-1.21	0.225
	PROFITGA	0	0.00	5	3.00	-2.02	0.043
	PROFITNA	1	1.00	4	3.50	-1.75	0.079
	IORATIO	2	3.00	3	3.00	-0.40	0.686
SANDHAGAON	YIELDGAV	3	2.33	1	3.00	-0.73	0.465
	YIELDNAV	3	2.33	1	3.00	-0.73	0.465
	CROPIN	3	2.00	0*	0.00	-1.60	0.273
	PROFITGA	1	2.00	3	2.67	-1.10	0.273
	PROFITNA	1	2.00	3	2.67	-1.10	0.273
	IORATIO	1	3.00	3	2.33	-0.73	0.465

Notes: T < 0 refers to cases where the value of the variable in the case of tenanted land is less than that of owned land and T > 0 is the reverse.

* there is one case tie T=0

CHAPTER VIII
SHARE TENANCY AND INTERLINKAGE
(SURVEY FINDINGS)

8.1 INTRODUCTION

In underdeveloped agrarian economies it is very often observed that tenancy contracts are interlinked with transactions in other markets like credit, labour and marketing of produce. Due to this interlinked nature of transactions, Bharadwaj (1974) argues that the neoclassical individualist market framework is not applicable to the sort of multiple exchanges observed in backward agriculture. And she suggests an alternative classical framework to explain the interlinked deals in terms of surplus extraction.

Bhaduri (1983a) argues that by interlinking the credit and land market, the land owner wields semifeudalistic power over the tenant and brings the tenant under his perpetual control subjugating him to a kind of serfdom. Thus Bhaduri's view resembles the classical form where the precapitalist relations are a direct relationship of domination and subordination between the ruling classes and direct producers unmediated through the market and they are thus characterised by extraeconomic coercion.

Bardhan (1984b), a noted exponent of neoclassical approach asserts that interlinkage reinforces the impact of imperfection in each market. Interlinked personalised transactions by their very nature act as a formidable

barrier to entry for third parties and is thus a source of additional monopoly power for the dominant partner in such transactions. Interlinking of transactions in different markets is also a very effective way for the dominant party to avoid social or legal controls or charging high prices if control on prices is not uniform in all markets or prices adjust at different speed in different markets. He emphasizes that the neoclassical tools to explain and study the impact of market imperfections can perfectly be used to study interlinked transactions in backward agriculture. In contrast to Bhaduri, Bardhan does not have such a pessimistic view of interlinked contracts. In explaining the existence of attached labourer arrangement, for example, Bardhan (1984b) notes that "the employee's need for job security and the employer's need for a dependable and readily available source of labour supply and not feudal subordination that provides the major motivation for a predominantly market relationship between the attached labourer and his master."

Interestingly Basu (1983) in his attempt to explain dispersion in prices i.e. several interest rates or wage rates prevailing in the same village or adjacent areas argues that what appears imperfect may actually be perfect viewed as a whole package and not from the angle of individual markets. While workers are not getting wage equal to their marginal product, one cannot infer immediately from this that the market is imperfect as the worker may be getting credit at an interest below the

organised sector rate. Actually when deals are interlinked it is no longer correct to think of wages as payment for labour and interest for payment for loans. Thus in explaining price dispersion, what interlinkage displays is that in a fundamental sense there is equality. But in reality, it is indeed often the cases that peasants in one village are better off in terms of utility derived from the package than workers in another village. An interlinkage theory in itself cannot explain this. In order to explore the causes of dispersion of factor prices one has to go deeper to find out the existence of transfer cost due to exogenous barriers to entry caused by hereditary connections, caste and community links and a multitude of intricate human relationship. Thus dispersion in factor prices is caused by both interlinkage of markets and the existence of transfer costs. So what Basu tries to stress is the limitation of the theory of interlinkage and not the existence of perfection in rural markets. To explain fundamental aberrations one has to go a step further than interlinkage, to the existence of transfer costs and exogenous barriers to factor movements.

There is a burgeoning literature on interlinkage of factor markets which we have already discussed in Chapter II. With this broad theoretical underpinning we now attempt to examine the kind of interlinked contracts observed in our study villages.

8.2 LINKED TENANCY CONTRACTS

In our study villages, some of the tenants are found to borrow from their lessors. As a result, the land, labour and credit contracts are interlinked. In Charapara a pure tenant has borrowed Rs.1000 from his lessor for the funeral ceremony of his father at an interest rate 60 per cent per annum and he will repay in terms of labour. Usually when a loan is repaid in terms of labour the wage rate is less than the prevailing market rate i.e. Rs.8 per day when prevailing wage rate is Rs.10 per day and thus involves implicit interest charges. In Harinababi a part tenant has borrowed Rs.400 from the lessor for the purpose of cultivation which he will repay in terms of paddy at the market price just after harvest. As the harvest price of paddy is low, an implicit interest is charged. In Sandhagaon one OT and two pure tenants have borrowed from their lessors. The OT had borrowed Rs.50 which he repaid in cash by selling straw. Two PTs have borrowed Rs.200 and Rs.300 at 60 per cent interest rate which they will repay in terms of labour. Thus it is found that the loans from the lessors are charged interest either explicit or implicit. And most of the lessor creditors have salary income or extra income in addition to cultivation.

8.3 INTERLINKAGE BETWEEN CREDIT AND ASSET: USURIOUS INTEREST RATES

In backward agriculture the interest rates charged on privately made loans are often found to be exorbitant.

Table 8.2 shows that the interest rate when charged explicitly is exorbitant either 60 % or 120 % whereas the interest rate in the formal sector is only 12 per cent.

Economists put forward different explanations for the usurious interest rates which can broadly be categorised into three schools of thought viz. the lenders' risk hypothesis, the default hypothesis and the theory of interlinkage. According to the lender's risk hypothesis propounded by Bottomley (1963), while advancing loans the lender faces the risk of default and the lender has to add a premium to the opportunity cost of money to cover the likely loss of capital due to default. Once this risk of default is taken into account, the effective interest rate may turn out to be no higher than its counterpart in the organised sector. Consequently there is no real room for arbitrage and high interest rates persist unabated. But this lender's risk hypothesis has been vehemently criticised as the moneylender is always the dominant party in the loan transaction due to his large asset base and monopoly position. In the specific power relations that prevail in village communities, it is very unlikely that the borrower can default the loan and go scot free. Thus the lender's risk is more myth than reality and the lender is rational enough to extend loans only against collateral kept as security. And in case, the borrower defaults, the collateral is confiscated by the lender.

Knowledge of this social fact prompted Bhaduri (1977) to expound his 'default hypothesis' which lays that the

lender deliberately raises the interest rate to cause default¹ and confiscates the collateral kept as security. In Bhaduri's model the essence of usurious extraction lies in undervaluation of collateral. Here the concept of interlinkage creeps in through the back door, though Bhaduri (1977) has nowhere explicitly considered interlinkage in his model. As credit market is characterised by risk of default, there is a tendency for the credit market to be interlinked with the asset market to provide insurance against risk. Rao (1980) questions the theoretical adequacy of Bhaduri's model on the ground that it fails to capture the essence of credit phenomenon in backward agriculture by focusing on exchange categories rather than production relations or real power relations. In Bhaduri's model the limits to credit relations are set not by personal or class power but by organised credit market. Rao in the typical Marxist tradition argues that the economic power relations between borrowers and lenders are the chief determinants of the interest rates on credit transactions in rural areas. The distinction between lenders as a group and borrowers as a group is a class distinction reflecting unequal distribution of control over the means of production and subsistence. The credit relation is a historically specific mode of appropriating surplus and of transferring control over the means of

¹ In the 'lender's risk' hypothesis, the word 'default' means non-repayment of loan, whereas in 'default hypothesis' it refers to non-repayment of loan in money terms but repaid in terms of collateral which is confiscated by the lender.

production, frequently appearing during periods of transition between modes of production. The direct producers produce with their own means of production but are not able to meet their subsistence requirements and this social fact is the basis for perpetuating a social relation of subordination in the form of perpetual indebtedness.

Recently there has been a spurt of literature on interlinkage which propounds that if no interest rate is charged this does not mean an absence of usury, since there may be implicit interest charge in the form of a lower wage payment or buying a crop at less than the ruling market price from the borrower. In order to examine this we have divided the private loans according to interest charged into three categories: private loan with explicit interest, implicit interest and zero interest.

Table 8.2 shows that in the case of the landowning class a significant proportion of loans is from friends and relatives, where no interest is charged. Usually the landowning class borrows from relatives and friends at the time of a daughter's marriage when a huge sum of money is required for marriage expenses which nobody has at that time. But in the case of landless labourers and pure tenants the loans are charged either explicit or implicit interest. In Sandhagaon in the case of the landless class much of the loans are shown to have been charged at a zero interest rate. Here they have borrowed from the shopkeeper in the nearby village from whom they buy all their

groceries. In a sense this loan from the shopkeeper can be considered as having implicit interest charges because in order to qualify to borrow from the shop-keeper you must be his regular customer even if he charges a high price. It is found that in the village shop, prices are about 10 to 15 per cent higher than the prices in nearby town shops. This is, then, an implicit interest rate.

We next analyse the different linked credit contracts as observed in the villages in Table 8.3. The table shows that in village Charapara an MF has borrowed Rs.800 by linking the loan with an asset. The MF has mortgaged 0.64 acres of non-irrigated land near a large farmer in the nearby village and borrowed Rs.800 about four years ago which he has not yet repaid. When he repays the loan, he will get back his land. And the lender cultivates the land and keeps the crop as interest charged towards the loan. In contrast to this in Sandhagaon a landless pure tenant is found to advance Rs.700 to the land-owner by keeping 2 acres of land as mortgage for the last four years and he will cultivate the land and will have all crop yield to himself until the land-owner repays the loan. This type of reverse usufructuary mortgage observed in the non-irrigated village is interesting. In Sandhagaon a landless casual labourer has borrowed Rs.1500 by placing his gold necklace as collateral near a large farmer in the nearby village. The market value of the necklace will be about Rs.3000 and he is allowed to borrow half of the market value. He is also charged 60% interest rate and when he repays the loan

he will get back his necklace. Thus at the time of need the village poor mortgage whatever asset they possess to get a loan. Whereas the landed class are found to borrow from the commercial banks and co-operatives against gold or land as mortgage, the rural poor do not have such access.

But in the villages under study no household reported losing land due to non-repayment of a loan excepting one single household in Charapara. In Charapara all of the landless scheduled castes reported that their ancestors did not have any owned cultivable land excluding homestead land. The single widow in Charapara reported that she lost her entire holding as the land-owner confiscated her land fifty years back due to non-repayment of loan. The land owner and his younger brother together had owned 45 acres of land and when the land was divided each owned 22.5 acres of land and after their death the land was further divided among their sons. One had five sons and the other had three sons. Thus ultimately the landholding size of the present heirs come to less than 7 acres per household. All of them are settled in cities and they are now selling their land. Thus the offspring of the large landowners are gradually being detached from cultivation. Land-holding size is becoming smaller and smaller generation after generation, due to the law of inheritance, population growth and disintegration of the joint family system, and as a result large farmers having enough surplus to engage in usury are rarely found in the villages. Thus a Bhaduri-type exploitative moneylender is no longer found in the villages

under study though in the past such a class did exist. There are many novels in Oriya depicting the exploitative character of the zamindari class but that class no longer exists.

8.4 INTERLINKAGE BETWEEN LABOUR AND CREDIT

In backward agriculture, the boundaries of the village labour market are often narrowly delimited and heavily dependent on social and territorial affinities. Personal knowledge of the employers in relation to the work capacity, reliability and trust-worthiness of particular labourers plays a crucial role in labour hiring (Bardhan and Rudra, 1985). These affinities are often cemented by relationship of regular consumption credit, provision of rent-free land or homestead land and wage advances. In the absence of any developed market for credit and insurance these interlinked transactions act as an imperfect substitute and perpetuate the territorial segmentation of the labour market even in adjacent areas. Because, if the labourer wants to shift from the employer from whom he has taken a loan, he has to shift lock, stock and barrel which is not an easy job.

In this section we will analyse the loans linked with labour, semi-attached labourer and farm servant arrangements^{etc.} observed in the three study villages.

8.4.1 Loans Linked with Labour

Table 8.3 shows that in village Charapara landless labourers have taken loans of Rs.1850 against the promise of future labour in the lender's field. When a labourer repays loans in terms of labour he is paid a smaller wage than the prevailing market wage rate and thus implicit interest is charged. In Sandhagaon also a landless casual labourer has taken a loan of Rs.150 which he will repay in terms of labour. The landless class possess only their labour which they can pledge to get a loan.

8.4.2 Attached Labourer Arrangement

Attached labourers are found only in the irrigated villages. In the irrigated villages, as there is agricultural work throughout the year and availability of labour is an acute problem at peak periods the medium and large farmers prefer to make labour tying arrangements with the labourers by providing them land for cultivation or homestead land so that the labourer is compelled to work for the employer when the employer needs his service. The labourer is paid wages for the days he works for the employer. Details regarding attached labourers are given in Table 8.4. The contract is usually agreed in the month of March and for one year which may be renewed after completion of the year. The land-owner provides some homestead land or land for cultivation to the labourer for the period of contract, for which the labourer becomes attached to the employer. If the contract is not renewed or

violated then the landowner takes away the land. The attached labourer can cultivate his land only when his employer does not have enough work for him. The attached labourers are paid a wage rate less than the prevailing wage rate. As the table shows, the wage rate varies from case to case. The wage rate increases with years of employment. The attached labourer who has remained attached for the last thirty years is receiving a wage of Rs.10 per day and others get Rs.8 or Rs.9 per day, as against the prevailing wage rate of Rs.12 per day. The attached labourers reported an increase of Rs.1 over last year. In a year they work for the employer about 300 days. When the employer does not have enough work, the attached labourer has the freedom to work for other employers. In Charapara one attached labourer is paid in kind for 200 days. The cash equivalent of paddy that he gets as wage is Rs.8.50 per day. Now-a-days the attached labourers prefer to be paid in cash as with ready cash they can buy rice from the market. If they take paddy they will have to prepare *chaula* (uncooked rice) from *dhana* (paddy) which is laborious. In Harinababi an MDF has kept an attached labourer and he is paid Rs.300 above his usual daily wage but is not provided with any land.

The attached labourers usually borrow from their employers at the time of their need either in cash or in kind and repay it in terms of labour at the usual wage rate in which they are paid. In the table it is shown that two attached labourers have borrowed Rs.200 and Rs.600 which

they have repaid in terms of labour. One attached labourer takes an advance in kind from the employer which he repays in terms of labour.

All of the attached labourers were working as casual labourers before their present employment. All of them reported their other family members (like wife or father) working near the employer as casual labourers. The employment of attached labourer has decreased whereas the employment of farm servants or fully attached labourers is on the increase. That is because the resident labourers are no more interested in making labour tying arrangements as in irrigated agriculture work is available throughout the year. The arrangements regarding employment of farm servants are discussed below.

8.4.3 Farm Servant Arrangement

The landowner class sometimes interlink credit transactions with wage contracts to avert group assertiveness of the labourer class and to counterfoil their attempt at collective bargaining. As Bhalla's (1976) study in Haryana reveals that the landowners employ some trust-worthy workers as permanently attached labourers who supervise the work of casual labourers and this arrangement works as a check on class solidarity. Thus workers who are willing to make required behavioural adjustments are paid wages above their marginal products as tied rent or ability rent.

Findings regarding farm servant particulars are summarised

in Table 8.5. In Charapara and Harinababi the medium and large farmer owner cultivators keep farm servants to get dependable labour supply at their beck and call. Usually the very large farmers keep an attached labourer, a farm servant and a cow boy to take the cattle to grazing and to bring them back to the cowshed. The table reveals that out of 9 farm servants 5 are from tribal areas and are scheduled tribes. All of these immigrants from tribal areas have owned land (non-irrigated) in their native place. But they have migrated to irrigated areas because farming in their native place is prone to drought and what they produce does not meet their consumption requirements. Wage employment, moreover, is not available. All of them have come from one district Keonjhar as the first immigrant gradually brings others of his friends and relatives to be employed in the village.

The contract is made for one year and in the case of immigrant tribals the period of contract is from January to January as in their area the year starts from a festival called 'Makara' which falls in the month of January. But the resident or adjacent village farm servants are employed from March to March when all agricultural operations for kharif start. The farm servants, except the residents, stay in the land-owner's house and their maintenance expenses are borne by the employer. They are paid salary which varies from Rs.1000 to Rs.1800 per annum. The farm servants who are associated with a single employer for many years are paid more in comparison to others and every year their

salary increases by about Rs.100. They usually work for 10 hours in a day in the field and in the house. Sometimes they supervise the work of the casual labourers. All the employers of farm servants have extra income other than cultivation which includes professional, salary, remittances and pension. The resident farm servants usually prior to the contract take cash advances whereas the tribals are paid after the completion of contract period. The farm servants are given clothing twice in a year on the main Oriya festivals *Raja* and *Dasara*.

In the case of non-irrigated village Sandhagaon even marginal farmers and landless tenants keep farm servants who are called as '*halia*' (plough men). The contract is made from March to March and in most cases salary in Sandhagaon is fixed on a per month basis in contrast to the yearly basis found in the irrigated villages. As the landowners are salary holders they prefer to employ farm servants to till the land and to supervise the work of other casual labourers employed. In Sandhagaon 5 out of 6 farm servants are immigrants from jungle areas and four of them have owned land in their native places. They also cite the same reason as the farm servants of irrigated villages for their migration. But interestingly one of them reported that he had borrowed Rs.1000 from a private moneylender at 60 per cent interest^{rate} in his own village to buy a young bullock and that is why he migrated to this village to earn enough to enable him to repay the loan. Thus exploitation in one village has its repercussion on another village and shapes

production relations in the target village. This particular instance made us think that interlinked transactions may be observed in a particular place not because of poverty or an unequal exchange relationship exists there but because of poverty somewhere else. For example, in Punjab the employment of farm servants is on the increase and most of these farm servants are immigrants from backward and poor states like Orissa and Madhya Pradesh. There are agents with connections with the landed class in Punjab who regularly come to the drought prone villages in Orissa and advance loans to the family members of the labourer who is contracted for one year. In Punjab the labourers are given a fixed ration per week and no cash and they are compelled to work hard. We had occasion to hear woeful tales from a contract labourer who had fled from Punjab, although his family members were eager to send him again to Punjab to get the cash advance by which they can meet their subsistence requirements. Thus poverty in Orissa helps in the perpetuation of interlinked transactions in Punjab. Likewise in the irrigated villages the land owners go to the tribal areas in quest of farm servants and the ex-resident farm servants have now become casual labourers. Also the landowners are no more interested to keep resident farm servants as they do not stay in the land-owner's house. As a result it becomes a problem to call them, if some urgent work is required. During our survey many large farmers were found to grumble that the resident farm servants sometimes do not come on the pretext of illness

when they are actually doing other highly paid work in marriage ceremonies. We have already discussed how marginal farmers who were tenants and hiring out labour in Charapara and Harinababi have migrated to Calcutta and are employed there in unskilled manual work as gardeners, cleaners and watchmen in purely private companies. There they do not have any job security and even once the company did not pay them their full salary as the company incurred a loss. Therefore, the phenomenon of interlinkage is no more considered to be an intravillage phenomenon. With overall development and with the improvement in transport and communication facilities the mobility of the depressed class has of course increased but from one set of exploitation they enter into another set in a different place and thus interlinkage has crossed village boundaries. In a vast country like India there is large scope for migration and as long as unbalanced regional development and inequality are there interlinkage will remain.

8.4.4 Casual Labourers

In this section we will deal with the wage differential observed in the three villages, the previous occupation of the casual labourers and the position of the casual labourers in the village class hierarchy as to their bargaining power in wage negotiation and the like.

In Charapara wage per day for a male was Rs.12, whereas it was Rs.15 in Harinababi. The higher wage in Harinababi is due to the absence of a labourer class i.e.

the scheduled castes in that village. But Harinababi is hardly at a distance of half kilometre from village Charapara. The scheduled castes of Charapara expressed their reluctance to work in Harinababi though the wage rate in Harinababi was significantly higher. The reason the labourers put forward was that they were not willing to break the long-run patron-client relationship with the landowner class in their own village for short-term uncertain gain. In Sandhagaon, the wage per day for a male was Rs.15 per day, because of its location amidst the industrial complexes as has already been discussed.

It is to be noted that in irrigated villages piece rate of wage payment was observed for transplanting paddy. Also, for harvesting paddy, black gram, green gram and groundnut, the wage payment was on share rate basis. In the case of paddy, if the labourer cuts 80 bundles, he takes 10 bundles as his wage payment. In the case of green gram, black gram and groundnut, the wage payment is one ~~six~~ sixth of the uprooted plants. By contrast, in the non-irrigated village Sandhagaon, only daily wage payment system was observed. But for harvesting of paddy, the labourer was provided with lunch as to fuel energy and to speed up the work.

In all the villages there was immigration of labourers from nearby villages at the time of certain agricultural operations like transplanting, weeding and harvesting. They were paid daily wages. The cause for coming to these villages for work was unavailability of work in their

native villages. No labourer in our study villages reported going to other villages for work.

Now we discuss the previous occupation of the casual labourers in our three study villages. In village Charapara out of the 8 landless casual labourers 1 was a farm servant, 2 were cow boys, 1 was an attached labourer, 1 was a pure tenant and the other three had remained casual labourers. All the pure tenants were previously casual labourers. And it is to be noted that two pure tenants and two casual labourer households are adopted son-in-laws as they are staying in their in-laws' house. In Sandhagaon all the landless casual labourers reported no change in their occupation excepting one who reported that because of a fractured leg he was retrenched from his job (worker) in the Talcher colliery and henceforth he has become a casual labourer. All the pure tenants reported that they were previously casual labourers.

Regarding increase in wage, in Charapara the labourers reported an increase in wages over last year. For male workers the wage increased from Rs.10 per day to Rs.12 per day. And for females the wage increased from Rs.7 per day to Rs.8 per day. The casual labourers usually work in the field for 5 hours from 8 a.m. to 1 p.m. per day. The labourers again reported that this increase was brought about by collective bargaining. In Charapara for the last four years the wage has risen by one or two rupees. In Sandhagaon the wage has remained the same Rs.15 per day for the last four years and before that it was Rs.12 per day.

The wage increase had been brought about by collective bargaining. But all the labourers complained that though the government (state) has declared wage of Rs.25 per day for 8 hours labour, no land-owner is paying that. The present chief minister of Orissa in his socialistic enthusiasm in 1990 (year of our survey) increased the wage for unskilled worker from Rs.12 to Rs.25 per day. His slogan was that if you are not in a position to cultivate the land by paying the due wage to the labourers, leave it to the labourers to cultivate. The landowners' reaction was to assert that if the labourers demand the increased wage then they will simply leave the land uncultivated, because if they pay that much wage there is absolutely no profit as labour cost is the major component of operational cost. With the increase in wage as declared by government, sharecropping will definitely increase as self-cultivation will be less remunerative.

8.5 INTERLINKAGE BETWEEN CREDIT AND PRODUCE

In backward agriculture returns from cultivation are low and insufficient for internal financing. Lack of finance turns out to be the major hurdle for the cultivator in adopting a diversified cropping pattern and a modern package of practices. Institutional finance hardly meets the credit requirements of the farmers. As a result private trader lenders are emerging in the villages. Usually the trader cum moneylenders advance loans for the cultivation of cash crops like jute at the time of sowing or

transplanting with the condition that just after harvest the cultivator will sell the crop to the lender at a predetermined price irrespective of the market price. Conditions vary with regard to interest payment.

In our investigation only one respondent, a small farmer owner tenant in village Harinababi, reported borrowing from the trader-moneylender. He had borrowed Rs.200 from the trader for two months. And after harvest he repaid the principal loan amount in terms of jute at the prevailing market price but towards interest he paid 2 kgs. jute for the principal amount of Rs.100. As the price of jute was Rs.380 per quintal, interest for Rs.100 was Rs.7.60 for two months. So the interest rate per annum was 45.6 per cent. But here the borrower is compelled to sell just after harvest when the price is very low. To that extent there is further implicit interest charged.

It is to be noted that 10 years back there were many trader cum moneylenders in these villages advancing loans for cultivation of jute. In 1982-1983 the price of jute increased abruptly to Rs.1000 per quintal as demand for jute increased due to floods in West Bengal. The farmers in response to this started cultivating jute the next year but the price decreased abruptly to Rs.500 per quintal. The price of jute is volatile in nature. Gradually there is decreasing demand for jute as the gunny bags are now being replaced by plastic and paper bags. Therefore in Charapara cultivators are not interested in cultivating jute. Moreover, almost all the cultivator households have some

supplementary income like remittance income or salary income so that they no longer go to the trader moneylenders to borrow for cultivation purposes.

In Harinababi a tenant has borrowed Rs.400 from his lessor which he will repay in terms of paddy just after harvest at the prevailing market price. As the price of paddy is quite low at harvest time, it is again equivalent to charging of implicit interest rate.

8.6 CONCLUSION

It is observed that interlinked transactions are more prevalent in irrigated villages than the non-irrigated village. The tenants, attached labourers, farm servants and the casual labourers are subject to exploitation as the interest rate charged is found to be exorbitant, wages paid to the workers are low and the minimum wage declared by the government is not paid to the labourers. The labour tying arrangements are in total contrast to the free labour found in capitalist agriculture. The relationship between the employer and the employee is not a symbiotic relationship as Bardhan presumes. Rather it resembles a dominant and dependent relationship where the landowning class has an upper hand. Through different contrived ways the landowning class extract surplus from the poor peasants. Of course, the modality is different from that observed in feudalistic society characterised by extra-economic coercion. There is considerable variation in wages with regard to status of the farm servant (resident or immigrant) and also wages

increase with period of association with the employer.

The mode of exploitation is always defined with respect to a stage of historical development of a society. Bhaduri's model of interlinkage between usury and tenancy is perfectly applicable to Orissa under British rule when a zamindari class with large landed estates spread over a number of villages dominated village society and were mainly a rentier class. The existing environment and colonial state policy were not congenial for self-cultivation by this group (Padhi, 1985). Therefore, they tried to increase their hold over the peasants by combining usury with tenancy. In the changed circumstances of contemporary Orissa such explanations of agricultural stagnation are not tenable. No such class exists now. Implementation of Orissa Estates Abolition Act (1952), ceiling on land, sub-division of family holding due to law of inheritance, disintegration of the joint family system and pressure of growing population on limited land have combined to produce a levelling down in landholding size in Orissa. Accumulation of land in the hands of rich peasants or class polarisation is not at all visible.

To conclude, our study reveals that interlinkage clearly exists in the sample villages. But it is not to be considered as a dominant set of relationship as has been suggested by some Marxist writers. The role of migration in the persistence of interlinkage is significant and needs to be emphasised and incorporated in theoretical analysis of interlinkage.

TABLE 8.1

Linked Tenancy Contracts

Village\ Category	Sl. No	Borrowing from Lessor Rs.	Amount Repaid Rs.	Interest Rate per Year	Purpose of Borrowing	Mode of Repayment	Years with Lessor	Lessor's Income Source
CHARAPARA								
PT	1	1000	-	60%	ceremonial	labour	4	C&S
HARINABABI								
OT	1	400	-	-	cultivation	crop	5	C
SANDHAGAON								
OT	1	50	50	-	cultivation	cash	10	S
PT	2	200	-	60%	ceremonial	labour	10	C&S
PT	3	300	-	60%	consumption	labour	1	C&S

Notes: C - Cultivation, S - Salary

TABLE 8.2

Distribution of Private Loan as per Interest Charged
According to Farmer Class

Village\ Category	Total Private Loan Rs.	Explicit Interest Charged Rs.	Interest Rate per Annum	Implicit Interest Charged Rs.	Zero Interest Charged Rs.
CHARAPARA					
MF	21,800	6,000	60%	800	15,000
SF	23,000	3,000	120%	-	20,000
MDF	17,000	-	-	-	17,000
LF	-	-	-	-	-
PT	1,400	1,000	60%	-	400
LL	1,950	-	-	1,850	100
Others	40	40	120%	-	-
Total	65,190	10,040		2,650	52,500
HARINABABI					
MF	10,200	-	-	200	10,000
SF	400	-	-	400	-
MDF	700	700	60%	-	-
Total	11,300	700		600	10,000
SANDHAGAON					
MF	3,000	-	-	-	3,000
SF	-	-	-	-	-
MDF	-	-	-	-	-
PT	12,300	1,300	60%	-	11,000
LL	6,550	5,200	60%	150	1,200
Others	3,000	-	-	-	3,000
Total	24,850	6,500		150	18,200

TABLE 8.3

Distribution of Commercial Private Loan among Different Linked Transactions
According to Farmer Class

Village\ Category	Commercial Private Loan Rs.	Linked Loan Rs.	% of Total	Linked With Tenancy Rs.	Linked With Labour Rs.	Linked With Asset Rs.	Linked With Produce Rs.
CHARAPARA							
MF	6,800	800	11.8	-	-	800	-
SF	3,000	-	-	-	-	-	-
MDF	-	-	-	-	-	-	-
LF	-	-	-	-	-	-	-
PT	1,000	1,000	100.0	1,000	-	-	-
LL	1,850	1,850	100.0	-	1,850	-	-
Others	40	-	-	-	-	-	-
Total	12,690	3,650	28.8	1,000	1,850	800	-
HARINABABI							
MF	200	200	100.0	-	-	-	200
SF	400	400	100.0	400	-	-	-
MDF	700	-	-	-	-	-	-
Total	1,300	600	46.2	400	-	-	200
SANDHAGAON							
MF	-	-	-	-	-	-	-
SF	-	-	-	-	-	-	-
MDF	-	-	-	-	-	-	-
PT	1,300	1,300	-	-	-	-	-
LCL	5,350	1,650	-	-	150	1,500	-
Others	-	-	-	-	-	-	-
Total	6,650	2,950	-	-	150	1,500	-

TABLE 8.4

Attached Labourer Details: Irrigated Villages

Sl.No.	Caste	Resident/ Adjacent Village	Wage Cash Rs./day	Wage Kind Paddy	No. of Days Working per Year	Loan From Employer Rs.	Amount Repaid Rs.	Mode of Payment	No. of Years Emp- loyed	Previous Occu- pation	Given by Employer Land acres	H.Land acres	Employer's Ope. Holding acres
GHARAPARA													
1	SC	R	8	-	300	200	200	Labour	1	CL	0.24	-	16.50
2	SC	AV	10	*5Kgs.	300	**Advance	-	Labour	30	CL	0.28	-	14.52
3	SC	R	9	-	300	600	300	Labour	2	CL	-	0.28	11.52
HARINABABI													
1	SC	AV	9	-	300	-	-	-	2	CL	Rs.300	-	6.00

Notes: * Cash equivalent of paddy is Rs.8.50/day, he is paid in kind for about 200 days.

**He takes advances in kind which he repays in terms of labour at the usual wage rate.

TABLE 8.5

Farm Servant Particulars

Sl. No.	Caste	Owned Land Acres	Resident/Immigrant from			Salary/ Advance			Years Previous		Employer Details			
			Adjacent Village	-----		Annum (Rs.)	Taken Rs.	Emp-loyed	Occu-pation	Farmer Category	Farmer Class	Ope. Holding	Extra Income	
				0-50 Kms.	50-100 Kms.									+100 Kms.
CHARAPARA														
*1	SC	-	AV	-	-	-	1,500	300	1	DS	OC	LF	17.50	PR
*2	SC	-	R	-	-	-	960	-	1	-	OC	LF	17.50	PR
3	ST	5.00	-	-	-	y	1,800	-	13	-	OC	LF	14.52	RM
4	ST	6.00	-	-	-	y	1,000	-	1	AL	OC	MDF	6.84	P&RM
5	ST	3.50	-	-	-	y	1,600	-	3	FS	OC	LF	16.50	SE&RM
6	SC	-	R	-	-	-	1,800	350	1	FS	OC	LF	12.00	SE&RM
7	SC	-	R	-	-	-	1,200	1,000	4	CL	OC	LF	12.00	S&RM
HARINABABI														
1	ST	3.00	-	-	-	y	1,400	-	2	FS	OC	MDF	5.00	
2	ST	3.00	-	-	-	y	1,200	-	1	FS	OC	MDF	5.50	
SANDHAGAON														
1	SC	2.00	-	y	-	-	1,800	**	2	FS	OC	SF	4.00	S
2	SC	1.50	-	-	y	-	1,920	-	3	CL	OC	SF	4.00	S
3	SC	1.00	-	y	-	-	1,600	-	1	CL	PT	-	2.00	P&W
4	SC	-	-	y	-	-	1,300	-	1	-	TO	MF	2.98	S&W
5	SC	-	R	-	-	-	500	-	1	CL	OC	MDF	5.50	S
6	SC	2.00	-	-	y	-	1,800	-	1	FS	OT	MF	3.00	-

Notes: *Both of them are working under one employer.

**They take loans at the time of their need

which is being adjusted towards their salary.

S - service, P - pension, RM - remittance, SE - self-employment, PR - professional, W - wage

DS - domestic servant

CHAPTER IX

CONCLUDING REMARKS AND POLICY IMPLICATIONS

In this concluding chapter we attempt to summarise our major findings with regard to the causes of share tenancy, its efficiency implications and its dynamics. And a concluding remark is made with respect to the applicability of neoclassical and Marxist approaches to the tenancy question. Some policy measures are suggested for the improvement of tenants. Certain directions in which this study can be extended are outlined.

With regard to the causes of share tenancy our study based on primary data collected from three villages in Orissa reveals that the main cause of leasing-in as reported by the share tenants is 'lack of alternative employment opportunity'. The prime reason for leasing out as given by the lessors is 'no able adult male in the family to supervise'. Thus tenancy viewed from the viewpoint of both lessees and lessors is a compulsive contractual choice arising from certain social contingencies.

Regarding the efficiency implication of tenancy, our study provides no conclusive evidence that share tenancy is allocatively inefficient in a static setup. But in a dynamic setup share tenancy definitely emerges as inefficient, since it discourages accumulation and investment and adversely affects human resource development.

In explaining backwardness tenancy does play a role as in our study we find that tenants do not undertake land improving measures. Rather they use more fertiliser which may degrade the land in the long run. But we do not have any evidence of agricultural surplus being diverted to usury as propounded by Bharadwaj(1985) or the landlord discouraging innovative measures as suggested by Bhaduri(1973).

Tenancy is found to be interlinked with the credit and the labour market. Our study reveals that interlinkage is more prevalent in the advanced villages in comparison to the non-irrigated village. In the advanced village labour attachment (attached labourers), input sharing in tenancy, seasonal tenancy, interlinkage between credit and produce, different crop sharing arrangement for different crops and patron-client relationships are observed. By contrast, in the non-irrigated village such features are absent. Moreover, in the irrigated village shortening of leases and eviction of tenants to extract surplus are on the increase. In the non-irrigated village mortgaging of land by land owners with the tenants for a cash advance is on the increase. In the irrigated villages tenancy is in a state of flux and changing continuously so that surplus can be appropriated by the landowning class.

Our analysis shows that the Marxist approach though more appropriate in explaining share tenancy than the neoclassical approach, it is not sufficient and needs to be supplemented by an overarching macro framework so that the

persistence of tenancy and the emergence of interlinked deals can be adequately explained. In this respect we have emphasized the migration aspect which has not been given the attention that it deserves. The issue of migration provides a solution to some of the puzzling issues like persistence of interlinkage being consistent with the development of market forces.

We emphasise that the power relations do not remain constant and that with change in macro variables and other economic forces the power structure is itself changed. Thus, for example, the law of inheritance and disintegration of joint family system appear to have resulted in no large farmers having substantial surpluses, while due to improved transport and communication facilities the oppressed class has itself migrated, giving their place to another set of immigrants from remote tribal areas.

Tenancy and interlinkage can be better explained by the Marxist approach but enmeshed in a macro framework attempting to study the changing power relation with respect to changes in macro variables like overall population growth, the unemployment rate, the rate of industrialisation, unbalanced regional development and the other economic factors like migration caused by overall development. Historical antecedents and the role of the state should also be integrated to the analysis: although we have not been able to do so in this thesis.

Last but not the least ecology plays a major role in

influencing the labour process and power relations. This has not been given adequate attention in the literature.

Our findings suggest that tenancy does play a useful role by providing employment to poor peasants who do not have any other alternative job opportunity. Therefore, tenancy should not be declared illegal. Rather the legal provisions regarding the terms and conditions of tenancy should be clearly spelt out. Tenants should be made aware of these legal provisions. Tenancy should be recorded and an official document should be signed by the parties to the contract. For effective implementation of tenancy legislation, the political will of the ruling class, the social commitment of the bureaucrats and organisation of tenants is required. The Government should encourage farmers' organisation like service cooperatives and irrigation water users' society. It is essential that the intended beneficiaries of all poverty alleviating programmes can have a forum to express their views. Moreover, all inputs like seed, fertiliser, credit and marketing facilities should be provided to the peasants in a package and through one window.

This study can be extended in three ways. Firstly, in the neoclassical model building exercise, the macro features of an economy like unemployment, population growth, unbalanced development, migration must be incorporated to provide a meaningful explanation of share tenancy. Secondly, in the Marxist framework, the autonomous role of the class relations must not be

overstressed. The impact of the above mentioned macro variables which effectively shape the enforcement device of the dominant class must be taken into consideration. Thirdly, we observe that the village boundary is gradually breaking down. Because, a number of lessors lease out to residents of adjacent villages. Likewise, tenants also lease in land from land owners of nearby villages. Also, sale and purchase of land are not restricted to be an intra village transaction. Therefore, in order to get sufficient number of observations which will allow to do parametric tests and to get some robust results, one must collect data from a cluster of villages having fairly similar socio-economic characteristics and ecological conditions.

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APPENDIX - 1.1

VILLAGE QUESTIONNAIRE

- 1) Name of the village
- 2) Tehsil
- 3) District
- 4) Canal/minor
- 5) Total population
- 6) No. of scheduled castes
- 7) No. of schedule tribes
- 8) No. of cultivators
- 9) No. of agricultural labourers
- 10) Literacy ratio
- 11) Distribution of population by educational standard
 - (a) Just literate
 - (b) Primary
 - (c) Secondary
 - (d) Above Secondary
- 12) Total land area (acre)
- 13) Cultivable area (acre)
- 14) Irrigated land area (acre)
- 15) Sources of Irrigation
 - (a) Canal
 - (b) Ground water
- 16) Period of availability of irrigation water
- 17) No. of pumpsets in the village
- 18) Farming implements and machinery

Items

- (a) Tractors
- (b) Harvesters
- (c) Threshers
- (d) Any other (specify)

19) Modal size of holding (acre)

20) Area under High Yielding Varieties:

Season/Crop Area

21) Area under application of chemical fertiliser:

Season/Crop Area

22) The year the village is electrified

23) Cropping pattern

Crop Acre

24)

(i) **INFRASTRUCTURAL FACILITIES**

Sl.No.	Facilities	No. in the village	Distance to nearest centre (if not available in the village) (Kms)
1	2	3	4

A. Educational Facilities

- (i) Lower Primary School
- (ii) Upper Primary School
- (iii) M. E. School
- (iv) High School
- (v) Library/ .Club
- (vi) College
- (vii) Anganwadi

B. Health Facilities

- (i) Primary Health Centre/dispensary

(ii) Veterinary Dispensary

(iii) Private Medical Practitioner

C. Marketing/storage facilities

(i) Daily Market

(ii) Weekly Market

(iii) Wholesale Market

(iv) Cold storage

(v) Warehouse/godown

(vi) Retail Input Centre

(a) Seed supply

(b) Fertiliser

(c) Pesticide

(vii) Marketing Co-operative Society

D. Processing Facilities

(i) Rice Mill

(ii) Rice huller

(iii) Cane crusher

(iv) Oil mill

E. Credit Facilities

(i) Primary Agricultural Co-operative Society

(ii) Commercial Bank

(iii) Regional Rural Bank

(iv) Land Development Bank

(v) Private moneylenders

(a) Landlord cum moneylender

(b) Professional moneylender

(c) Trader cum moneylender

F. Communication Facilities

- (i) Post and Telegraph office
- (ii) Branch post office
- (iii) Public call office

G. Agricultural Extension Facilities

- (i) Village agricultural worker
- (ii) Agricultural Extension Officer
- (iii) Agro-service centre

H. Reliability of power supply

24. (ii) Distance of the villages from nearest: (in Kms)

- (a) Block Headquarters
- (b) District Headquarters
- (c) Main Road
- (d) Railway Station
- (e) Large road construction
- (f) Main place for outside work

25. PRICE OF LAND

Land type	Price/	Price/gunth	price/acre
	local unit	(.04 acre)	

26. WAGE PAYMENT

- (a) Operations/seasons Daily wage rate
- (b) Does wage vary ^{depending} on sex?

<u>Operations</u>	<u>Male</u>	<u>Female</u>	<u>Child</u>
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- (c) Is Child labour observed in the village?
- (d) Is there any change taking place in the wage payment system? Which type of payment is on the increase?
 - (1) Piece rate
 - (2) Share rate
 - (3) Daily Wage

27. MIGRATION

- (a) Are there labourers who come from outside the village during certain seasons?
- (b) If yes, for what kind of operations and what seasons are they employed?
- (c) Would there be any short supply of labour during peak seasons if there was no migration?
- (d) Are the migrant labourers employed more on
 - 1) Piece rate
 - 2) Share basis
 - 3) Daily wage
- (e) Are the migrant labourers paid less than the labourers belonging to the same village?
- (f) What is the ratio of female migrant labourers to male migrant labourers?
- (g) Do they come regularly?
- (h) Do they come regularly for the same operation or different operations?
- (i) How do they come? On their own initiative or through local agent ?
- (j) Do such outside labourers belong to certain particular castes or tribes?

- (k) If so specify.
- (l) Do they migrate from a particular place?
- (m) If yes, What are the reasons behind their migration?
- (n) Are most of the farm servants immigrant labourers?
- (o) Do labourers migrate from this village?

28. TENANCY

- (a) Is there any tendency in the village for increase of tenancy?
- (b) What are the reasons for increase or decrease in tenancy?
- (c) Is there any tendency for eviction of tenants?
- (d) Is there any tendency for increase in fixed cash or fixed kind or crop share rent? For which crops/variety?
- (e) Is there any tendency for increase of employment of casual labourer under own supervision?
- (f) Is there any tendency for employment of farm servants to increase?

29. BORROWING

- (a) Is institutional finance on the increase in the village?
- (b) Do the villagers prefer to borrow from private moneylenders?
- (c) Majority of private moneylenders come under which category?

- 1) Landlord cum moneylender
- 2) Trader cum moneylender
- 3) Professional moneylender
- 4) Relatives and friends

HOUSEHOLD QUESTIONNAIRE

1. Identification

- (a) Sl. No.
- (b) Name (Head of the house-hold)
- (c) Village
- (d) Caste (specify)
 - 1. Scheduled caste
 - 2. Schedule tribe
 - 3. General
- (e) Age
- (f) Education
- (g) No. of years in agriculture

2. FAMILY PARTICULARS

Sl. No.	Items	Adults		Children	
		Male	Female	Male	Female

1. Members

2. Occupation

- (a) Cultivation
- (b) Wage
- (c) Business/Trade
- (d) Service
- (e) Any other (specify)

3. Education

- (a) Illiterate

- (b) Primary
- (c) M.E
- (d) High School
- (e) Higher Education
- (f) Technical education/ Vocal education

3. LAND HOLDING PATTERN

Land Owned	Leased in	No. of Lessors	Leased out
Irrigated			
Non-irrigated		No. of Lessees	Mortgage Operational Holding

4. A.If any usufructuary mortgage, give details as to

- (a) Moneylender's main profession
- (b) Purpose of taking the loan
- (c) Terms and conditions
- (d) Reasons for borrowing from that particular moneylender

B. (i) If any leased-out land, state causes of leasing out land (in order of importance)

- (a) Scarcity of labour
- (b) Difficult to supervise labour
- (c) does not possess bullock or difficult to get bullock
- (d) No sufficient man-power in the family
- (e) Lack of finance to self-cultivate
- (f) Lack of experience in cultivation
- (g) Problematic land
- (h) Distant land
- (i) Cultivation is risky

- (j) Living outside the village
 - (k) Caste restriction
 - (l) If any other (specify)
 - (ii) If non-resident lessor, what are the reasons for not selling the land
 - (a) Appreciation in land value
 - (b) Desire to retain ancestral land
 - (c) Difficulty in selling land (specify)
 - (d) Other difficulties (specify)
 - (iii) What type of tenants does a lessor prefer
 - (a) Efficient cultivators
 - (b) Honest in rent payment
 - (c) Who owns bullocks
 - (d) Who has large family size
 - (e) Who has sufficient able-bodied adult male members
 - (iv) What type of cultivator does a lessor prefer?
Who has
 - (a) No land
 - (b) Less than 2.5 acres
 - (c) 2.5 - 5.0 acres
 - (d) 5.0 - 10.0 acres
- C. If leased-in land, go to the tenancy questionnaire.

5. ASSET POSITION

Items	No.	Value (Rs.)
-------	-----	-------------

- (a) Owned land (acre)
 - (b) Homestead land (acre)
 - (c) Houses
 - (d) Cattleshed
 - (e) Other structures
 - (f) Cattle owned
 - (g) Farm implements
 - (1) Plough
 - (2) Bullock carts
 - (3) Others (specify)
 - (h) Financial assets
 - (1) Savings
 - (2) Outstanding dues
 - (3) Outstanding loans
 - (4) Total (1) + (2) - (3)
 - (i) Consumer durables
 - (j) Gold/silver ornament
-

Total Asset Position

6. CROPPING PATTERN AND COST OF CULTIVATION

Season	Crop	HYV\Local	Area Cultivated (acre)	Seed Kgs.	Labour Cost	
					Rs. owned	Hired No. No.

9. CREDIT AND INDEBTEDNESS

Purpose	Items	Agency	Amount borrowed	Purpose of borrowing	Interest rate
---------	-------	--------	--------------------	-------------------------	------------------

	Security offered	When borrowed
--	------------------	---------------

Cash Loans

	No of instalments	Amount	Mode of repayment
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Grain Loans -----

10. Do you face difficulties in getting loan? Yes/No

11. If Yes, give details in order of importance?

(a)----- (b) ----- (c) -----

12. OUTSTANDING LOAN AT THE OUTSET OF 1989-90

Amount outstanding	Amount borrowed	Agency	When borrowed	Purpose	Reasons for not repaying
-----------------------	--------------------	--------	------------------	---------	-----------------------------

13. SOURCEWISE HOUSEHOLD INCOME

Sl. No.	Source	No of members	Monthly	Annual
(1)	Cultivation			

- (2) Dairy
- (3) Poultry
- (4) Piggery
- (5) Fishery
- (6) Trading and business
- (7) Cottage industry
- (8) Services
- (9) Wages
- (10) Rent and interest
- (11) Remittances
- (12) Other income (specify)

TOTAL INCOME

14. EXPENDITURE PATTERN (ANNUAL)

Sl. No.	Items	Amount (Rs.)
---------	-------	--------------

- 1) Subsistence consumption expenditure
- 2) Farm expenses
- 3) Investment in agriculture
 - (a) Purchase of land
 - (b) Reclamation of land
 - (c) Construction of farm houses
 - (d) Development of irrigation
 - (e) Purchase of implements and machinery
 - (f) Others (specify)

4. Family expenditure

- (a) Consumer durables
 - (b) Marriage
 - (c) Other ceremonies
 - (d) Education
 - (e) Medical expenses
 - (f) Clothings
 - (g) Others (specify)
-

TOTAL EXPENDITURE

15. **SAVINGS (1989-90)** (Rs.)

- (a) Addition to deposits
 - (b) Purchase of shares in co-operative banks
 - (c) Purchase of savings certificates
 - (d) Others (specify)
-

TOTAL

TENANCY QUESTIONNAIRE

1. LEASING PARTICULARS

Sl. No. Land leased in Description of Duration of
IR NIR lessor contract

2 3 4 5

Written or Terms of Sharing of Input Borrowing from
oral contract by-product sharing land-owner

6 7 8 9 10

purpose of Interest
borrowing rate

11 12

Description of lessor

- (a) Absence of landlord
- (b) Owner cultivator
- (c) Non cultivator (specify major source of income)
- (d) Small farmer having unviable size of holding

Terms of contract (specify the amount)

- (a) Crop share
- (b) Fixed kind
- (c) Fixed cash

2. What are the causes of leasing in the land (in order of importance)

- (a) To make the land holding viable
- (b) No alternative job opportunity
- (c) To consolidate holding in a compact block.
- (d) To undertake commercial farming in a large scale
- (e) Resource adjustment, bullock/manpower
- (f) If any other specify

3.(a) Can terms of contract be changed in the middle of the season for the year? Yes/No

(b) Do such changes take place commonly? Yes/No

(c) Can tenant be evicted in the middle of the season/year for which he has leased in land?

Yes/No

4.(a) Who takes decision regarding crops to be grown?

Owner/tenant/jointly

(b) Who takes decision what and how much of fertiliser, seed etc. to be used? Owner/tenant/jointly

(c) Are certain investments on land carried out by tenants? If yes, who takes decision?

Owner/tenant/jointly

Give particulars of such investments.

(d) Are certain investments on land carried out on a share basis by owner and tenant? If yes, who takes the decision? Owner/tenant/jointly

5.(a) Is harvesting supervised by the owner or on behalf of the owner? Who actually does the supervision?

(b) Where does the sharing of crops take place?

Tenant's house/owner's house/public place

6. Does he do any unpaid or underpaid work for the owner? Give particulars?

7.(a) Is there any tendency in the village of eviction of tenants? Yes/No

(b) What are the causes of eviction of tenants? (in order of importance)

(i) Resumption of land for self-eviction

(ii) Dissatisfied with the tenants yield

(iii) In fear of tenancy legislation

(iv) To lease out to another tenant at increased ~~rat~~

(iv) Asked for advanced rent payment i.e mortgaging of land

(vi) Distribution of joint land

(vii) Family conflict

(viii) If any other, specify

(c) Is there any tendency in the village to shorten the leases? Yes/No

(d) If yes, what are the motives behind it (in order of importance)

(i) To resume land for self-cultivation

(ii) To enforce efficiency

- (iii) To avoid land legislation
 - (iv) To lease out to another tenant at increased rent
 - (iv) If any other (specify)
- 8.(a) Is there any tendency in the village of tenancy being changed to self cultivation with the help of hired labours? Yes/No
- (b) If yes, what are the reasons according to the tenant?
- 9.(a) Is there any tendency in the village of the terms and conditions of tenancy undergoing any change?
- (b) If yes, describe what kind of changes?
- (c) What are the reasons for such changes according to the tenant?
10. What kind of adjustments between the owner and tenant take place in the wake of crop failure on the leased in land because of bad weather or certain uncertain factors?
11. Does owner stipulate any minimum level of output on the tenanted land? Yes/No
12. What kind of tenants do landowners prefer?
- (a) Tenants with large family size
 - (b) Tenants with large size of holding
 - (c) Tenants with bullock power
 - (d) Tenants with managerial ability
 - (e) If any other (specify)
13. Which land i.e fertile or problem land or land at distance places, the landowner prefers to lease out?

- 14.(a) Since when is the respondent a tenant?
- (b) How long has the tenant been with the same owner?
- (c) Does any member of the tenant's family work as farm servant or casual labourer? If so does any of them work for the tenant's landlord?
- (d) Does the tenant sell any crop to the landowner?
- (e) If yes, whether the price is lower than the prevailing market rate?

forced to do so? Yes/no

(Applicable only for casual labourers)

(b) If forced to change, for what reasons?

(c) If changed voluntarily, for what reasons?

ATTACHMENT CONDITIONS

1. (a) Is the respondent attached to a single employer?

Yes/No

(b) Has he got the freedom to work for other employers?

Yes/No

2. If he is attached to a single employer, since how long?

3. What is the basis of attachment?

(a) The labourer has been attached to employer's family in master servant relation over long time

(i) because of an ancient hereditary debt

(ii) because of a loan taken some years back

(iii) without such debt

(b) The labourer habitually takes consumption loans from the employer time to time

(c) The labourer has received some pieces of land on allotment basis from the landlord

(d) The labourer has long standing family relation with the employer

(e) personal liking for the employer

4. In case of (a), (i) or (ii) mention

(i) amount of the outstanding debt

- (ii) age of the debt
 - (iii) form (cash, kind or labour) in which
repayment has to be made or is being made
 - (iv) the kind of interest that has to be made
5. What are the obligations of the labourer towards the employer?
6. (a) If the remuneration received by the labourer from the employer is different from normal wage, specify the difference?
- (b) If the labourer receives daily wage or meals or tiffins, does he get them every day or only on days he works for the employer?
7. For how many employers has the labourer worked during the current crop season?
8. (a) Did he get consumption loan from any of these employers?
- (b) If so, give details
- (i) amount borrowed
 - (ii) interest rate charged
 - (iii) from how many employers

WAGE BARGAINING

1. Are the wages received by the respondent this year the same as those received by him last year? If no, how has the change come about?
- (a) owner himself has increased the wage
 - (b) there was collective bargaining
 - (c) there was some agitation
2. Did the respondent participate in the process of

bargaining or agitation?

3. If he did not what were the reasons? Was it on the account of the way he is dependent on his employer?
4. Has there been any time when for the same operation different employers offered different wage rates? Give details
 - (a) which month
 - (b) which operation
 - (c) which kind of employer pays more
 - (d) for what reasons
5. Does the respondent know about the minimum wage rate declared by the government?
6. In the lean season when there is not much agricultural work, does he go out for non-agricultural work? Give details.

FARM SERVANT QUESTIONNAIRE

1. Name
2. Caste
3. Is he a
 - (a) resident of the village
 - (b) immigrant from the distant village
 - (c) immigrant from tribal areas
4. If he is an immigrant, why did he leave his native place?
5. How could he come to know of the employment opportunity available in this particular village?
6. Since how long the respondent is a farm servant for the present employee?
7. Give details regarding terms of contract:
 - (a) Period of contract from to
 - (b) Amount of wage cash kind
 - (c) Periodicity of wage payment
 - (i) wage advance
 - (ii) at the end of the contract period
 - (iii) at the time of need
 - (d) Other perquisites given by the employer
 - (e) Is the farm servant satisfied with the meal given by the master?
 - (f) For how many hours does the farm servant work in a day?
 - (i) in the field
 - (ii) at home
8. On what basis does the employer renew the contract?

9. If the farm servant is associated with the employer for long, does he gain from it?
10. Can he work for any other employer when his own employer does not have enough work for him?
11. Does he supervise the work of other casual and semi-attached labourers?
12. (a) Does he take consumption loan from the employer?
(b) Is it cheaper to take loan from him than any other outside sources?
13. Has he worked as a casual labourer in the last two years?
14. If yes, state reasons for becoming a farm servant?
15. Was he ever before
 - (a) a tenant
 - (b) semi-attached labourer
 - (c) casual labourer
 - (d) in other occupation
16. If he was a tenant, was he evicted by the landlord?
17. If yes,
 - (a) when was he evicted
 - (b) on what grounds
 - (c) does he work as a farm servant
for the landlord of whom he was tenant
18. Do some other members of his family work for the same as attached or semi-attached labourer?
19. Did he own any land before, which he lost for loan repayment?

20. **WAGE BARGAINING**

a) Are the wages received by the respondent this year the same as those received by him last year? If No, how has the change come about?

(i) owner himself has increased the wages

(ii) there was collective bargaining

(iii) there was some agitation

(b) Did the respondent participate in the process of bargaining or agitation?

(c) If he did not, what were the reasons? Was it on account of the way he is dependent on his employer?

20. Is the respondent a farm servant because of any previous loan to be borrowed against promise of future labour?

21. **PARTICULARS ABOUT THE EMPLOYER**

(a) Principal occupation of the employer

(b) Subsidiary occupation of the employer

(i) renting out land

(ii) trading

(iii) moneylending

(c) Is the employer a progressive farmer? Does he use

(i) H.Y.V. seed

(ii) chemical fertiliser

(iii) small machineries

APPENDIX 3.1

Foodgrains Production, 1965-66 to 1980-81

(Lakh tonnes)

Orissa

Abnormal Years		Normal Years	
Year	Factor Production	Year	Production
1965-66	Severe drought	1970-71	51.0
1966-67	Drought	1973-74	52.7
1967-68	Floods and Cyclone	1975-76	55.7
1968-69	Mild flood	1977-78	55.6
1969-70	Mild flood	1978-79	57.7
1971-72	Severe cyclone and flood	1980-81	59.8
1972-73	Drought and flood		
1974-75	severe drought and flood		
1976-77	Severe drought		
1979-80	Severe drought		

Source: Collected from Agricultural Productivity in Eastern India, Vol.II, R.B.I, Bombay, 1984 (p.32).

Appendix 4.1

Infrastructural Facilities Available in the Study Villages

Facilities	CHARAPARA AND HARINABABI		SANDHAGAON	
	No. in the Village (if Available)	Distance to Nearest Centre (if not available in the Village) Kms	No. in the Village (if Available)	Distance to Nearest Centre (if not available in the Village) Kms
(A) EDUCATIONAL FACILITIES				
Lower Primary School	1	-	1	-
Upper Primary School	1	-	1	-
M.E. School	1	-	-	3
High School	-	1.5	-	2
Library/Club	1	-	-	6
College	-	1.5	-	6
(B) HEALTH FACILITIES				
Primary Health Centre	-	1.5	-	6
Veterinary Dispensary	-	1.5	-	6
Pvt. Medical Practitioner	-	1.5	-	6
(C) MARKETING/STORAGE FACILITIES				
Daily Market	-	1.5	-	6
Weekly Market	-	1.5	-	6
Wholesale Market	-	12	-	6
Cold Storage	-	12	-	45
Warehouse/godown	-	12	-	22
Retail Input Centre				
Seed supply	-	1.5	-	6
Fertiliser	-	1.5	-	6
Pesticide	-	1.5	-	6
Marketing Co-op. Society	-	1.5	-	
(D) PROCESSING FACILITIES				
Rice Mill	-	0.5	-	1
Rice Huller	-	0.5	-	2
Oil Mill	-	12	-	22

Appendix 4.1

Infrastructural Facilities Available in the Study Villages

Facilities	CHARAPARA AND HARINABABI		SANDHAGAON	
	No. in the Village (if Available)	Distance to Nearest Centre (if not available in the Village) Kms	No. in the Village (if Available)	Distance to Nearest Centre (if not available in the Village) Kms
(E) BANKING FACILITIES				
Primary Agrl. Co-op. Society	-	1.5	-	5
Commercial Bank	-	12	-	6
Regional Rural Bank	-	1.5	-	6
Land Development Bank	-	12	-	6
(F) COMMUNICATION FACILITIES				
Post & Telegraph Office	-	1.5	-	6
Branch Post Office	-	1.5	-	6
Public Call Office	-	1.5	-	6
(G) AGRICULTURAL EXTENSION FACILITIES				
Village Agricultural Worker	-	1.5	-	6
Agricultural Extension Officer	-	1.5	-	6
Agro Service Centre	-	12	-	6

DEFINITION OF VARIABLES

Variables Definition

ADULTM	Number of adult active male members in a household
BULL	Number of bullocks possessed by a household
BULLV	Value of bullocks possessed by a household (in Rs.)
BULLVW	Value of bullocks owned per worker (in Rs.)
CASTE	Caste=1 if Scheduled Caste Caste=0 otherwise
CEXPHEAD	Experience in cultivation (in number of years)
COSTGA	Operational cost per acre (in Rs./acre)
CROPIN	Cropping intensity i.e. ratio of gross cropped area to net sown area
DEBTBURD	TOTALBOR/TOTALIN
DEFAULTR	INDEBT/TOTALBOR
DEPEND	Ratio of non-workers to workers in a household
INDEBT	TOTALBOR-REPAID i.e. extent of indebtedness
IORATIO	Input output ratio i.e. the ratio of profit to total cost
LABOR	Labor=1 if any member of the household does manual work Labor=0 if no member does manual work
LABORGA	Man days of labour per acre
LDEBTBUR	Logarithm of debt burden with base 10
LTINCOME	Logarithm of total income with base 10
MIGR	Number of members emigrated from a household
MIGRRA	MIGR/(MIGR+ADULTM) i.e. ratio of adult members migrated
MIGRRAT	MIGR/(MIGR+TOTALME) i.e. ratio of total members migrated
NALI	Net area leased in i.e. area leased in minus area leased out
NALIW	Net area leased in per worker
NONWORK	Number of non-workers in a household
OLANDRA	OLANDT/(MIGR+ADULTM)
OLANDRAT	OLANDT/(MIGR+TOTALME)
OLANDT	Land area owned by the household (in acres)
OLANDTW	Owned land per worker in a household (in acres)
OPHOLDT	Operational holding (in acres)
PROFITGA	profit per acre of gross cropped area (in Rs./acre)
PROFITNA	Profit per acre of net sown area (in Rs./acre)
TASSETV	Value of total household asset (in Rupees)
TOTALBOR	Amount borrowed (in Rs.)
TOTALCEX	Total annual household consumption expenditure (in Rs.)
TOTALIN	Total annual household income (in Rs.)
TOTALME	Total members in a household
YIELDGAV	Value of yield per acre of gross cropped area (in Rs./acre)
YIELDNAV	Value of yield per acre of net sown area (in Rs./acre)

