# CHANGING AGRARIAN RELATIONS IN A SEMI-SUBSISTENCE ECONOMY : A CASE STUDY OF A VILLAGE FROM ORISSA

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PHILOSOPHY IN APPLIED ECONOMICS OF THE JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI

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I hereby affirm that the research for this dissertation titled "Changing Agrarian Relations in a Semi-Subsistence Economy: A Case Study of a Village from Orissa" being submitted to the Jawaharlal Nehru University for the award of the Degree of Master of Philosophy in Applied Economics, was carried out entirely by me at the Centre for Development Studies, Trivandrum.

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Certified that this dissertation is the bonafide work of Mihir Kumar Mahapatra and has not been considered for the award of any other degree by any other University.

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To My Parents

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# Chapter 1

# Introduction

In a predominantly agrarian economy like Orissa, where the industrial sector is almost stagnant and more than 70 per cent of the total population depend on agriculture, directly or indirectly, the growth in agriculture is crucial to the development of the state economy. From an analysis of the growth rates of different sectors during the period 1950-51 to 1988-89 at 1970-71 price, it is evident that growth rate of the primary sector (2.25 per cent) is much lower than those of the secondary (4.13 per cent) and tertiary sectors (3.50 per cent). Further, during the same period the percentage share of the primary sector to net state domestic product has declined from 75.3 per cent to 61.5 per cent while that of secondary and tertiary sectors increased from 5.5 to 9.8 per cent and 19.2 to 28.7 per cent, respectively. In the primary sector, the share of agriculture and animal husbandry, which accounts for 90 per cent of the total share, has declined from 70.7 to 56.6 per cent during the same period. However, the performance of the agricultural sector is affected by several factors which can be broadly classified as institutional and technical.

In the present study, an attempt has been made to evaluate the role of these factors in the development of the agrarian economy of Orissa through a case study of a village from the coastal belt. The emergence of new agrarian relations, reflected through the change of status of owner cultivator to rentier and the agricultural labourer to tenant, will be analyzed by taking into

account both socio-economic and agro-climatic conditions, especially, the pattern of land distribution, availability and use of technical factors, and caste divisions. A comparative study between a dry village and an irrigated village has been attempted here.

This chapter has been divided into three sections. Section 1 deals with the relevant literature on agrarian relations in general with particular emphasis on India. Section 2 seeks to examine the changing contractual arrangements in Orissa. The objectives, methodology and organisation of the chapters are documented in Section 3.

## Section 1

### 1.1.1 Agrarian Relations in India:

The literature on the structure of land-lease market broadly presents two contrasting views. According to the frist veiw point, the tenants (the weaker party) are exploited by the landowners (the stronger party), as the latter dictates the terms and conditions of lease. This is reinforced where the lease market is interlocked with the credit, output and labour markets. Bhaduri (1973), a proponent of this view projects tenancy as a semi-feudal institution which inhibits agricultural modernization. Further, he pointed out that the dominant character of the existing production relations in the sample villages[1] could be described as semi-feudal, that is, it is more in common with the classical feudalism of the master-serf type than with industrial capitalism. The prominent features of this type of agriculture are share cropping,

[1] Based on a survey of 26 villages in West Bengal in 1970.

perpetual indebtedness of the small tenants along with two forms of extractions- rent and usury. This hypothesis was supported by Prasad (1973) while analysing relations of production in some villages of Bihar.[2] Subsequently, Prasad (1974b) while reviewing studies, from 1951 through 1971, extended the validity of the hypothesis to almost all parts of rural Inidia.

Though Nirmal Chandra (1974) argued that capitalist transformation in Indian agriculture is impeded by some socio- economic constraints, yet he felt Bhaduri has exaggerated the effect of semi-feudal relations in holding back the productive forces. He also emphasised that the unlimited supplies of labour could increase the power of the landowner so as to alter the share of output if new production possibilities appear.

In contrast to the above view, on the structure of land-lease market, Bardhan and Rudra (1980: 290) argued that ". . . the institution of share cropping tenancy does not at all conform to the stereo type of landlord-serf relationship . . .. On the contrary, there is considerable amount of evidence that the institution has been adopting itself more and more to the needs of increasing production and profit by enterprising farmers, both owners and tenants." In their study[3], they observed that higher

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[2] He found that utilization of irrigation facilities declined with increase in the size of holdings, larger landowners (10 acres and above) who cultivate with hired labourers, prefer "attached" workers, indebtedness is wide spread, share cropping is a common feature, and daily wages are so low, even households with two workers employed throughout the year are forced to take consumption loans at exorbitant rates of interest.

[3] Based on a survey conducted in 334 randomly chosen villages from the states of West Bengal, Bihar, Uttar Pradesh and Orissa.

crop share for the tenant was positively associated with high yielding varieties of grains and negatively associated with cost-sharing by the landlord. Besides, unpaid and obligatory services to the landlord is quite uncommon; even less common is the phenomenon of a tenant tied to a particular landlord. The landlords quite often give production loans to the tenant, share the costs of seeds, fertilizers, participate in decision making about the use of inputs and in general, take a lot of interest in productive investments on the farm.

Considering the indebtedness of the tenant they argued that in a situation of inadequately developed credit market a poor sharecropper may have few assets acceptable as collaterals outside credit market and the landlord would accept tenancy contract as collateral as the latter is in the best position to enforce repayment (of both production and consumption loans) during the harvest season. Further, their data reflect that landlord is an important source of credit, though not the only source. The study also observed interest free consumption loans in West Bengal.

Chadha and Bhaumik (1992)[4] suggest that most of the recently developed theoretical models on tenancy credit are inapplicable in their study area. The study showed that there is no evidence of tenants being exploited by the landlords.[5] Further they also

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[4] They examined the changing tenancy relations in Midnapur District of West Bengal.

[5] There is also no indication of credit being supplied to improve the allocative efficiency of the tenants. It showed that the organized tenants in spite of having an inferior socio-economic status were able to exercise their crop-sharing rights more

pointed out that the transactions between the lessors and lessees are being increasingly restricted to land-lease market only. At this juncture we take up a discussion on various types of lease.

### 1.1.2 Types of Lease:

With regard to Sharecropping (50:50), Smith (1976) and many subsequent authors including Marshall (1920) have argued that resource allocation can not be optimal as the tenant would equate his marginal cost of input to half the value of marginal output.[6] Whereas under fixed tenancy the return from the additional input will accrue to the tenant which would motivate him to produce more. However, Johnson (1950) suggested three possibilities to counter any such misallocation of resources. First, the owner clearly specifies in the contract the details of what the tenants have to do. Second, he shares the cost of production in proportion to crop share. Third, he grants a short term lease which gives him scope to review the performance of a tenant from time to time.

Contrary to this, Cheung (1969) argues that resource allocation can be done optimally in case of sharecropping.[7] Comparing fixed rent

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effectively. For all categories of tenants, cost-sharing has been very low. It is also to be noted that when the landlords' share some input costs, they are invariably rewarded with larger share of crop.

[6] Share cropping or share tenancy is defined as a form of contract in which the tenants promise to give a fraction of the total output. Generally it is decided before hand and it clusters around 50:50.

[7] Cheung (1969: 4) argues that "different contractual arrangements do not imply different efficiencies of resource use as long as these arrangements are themselves aspects of private property rights . . .. The allocation of resource will differ, however, if property rights are attenuated or denied as private, or if the Government overrules the market process of allocation."

with share tenancy he pointed out that the amount of non land input to be committed for every production run. In both the cases the maximization of wealth depends on land size per farm and the inputs employed. As the set of constraints for decision making is the same for two types of contracts, the same kind of resource use is implied.

Further, if there is certainty and transaction costs are the same for all contracts, and share contract specifies the labour supply of the tenant, it leads to the same efficient allocation of resources as in fixed rent or wage contract. Comparing the transaction costs involved in various contracts, he argues that the transaction costs for share contracts are higher than for wage and fixed rent contracts. But risk is shared between two agents in sharecontracts and it is borne by the tenant under fixed tenancy and by the landlord under wage contract. Thus it follows that, given the varying degrees of risk aversion among the landlords and tenants, some of them may prefer sharecontract if the risk-sharing advantages outweigh the transaction cost disadvantages.

To explain the rationale behind the prevalence of share tenancy Basu (1992) emphasized on ***limited liability axiom*** in agrarian relations. "The limited liability axiom says that if after a landlord and a tenant agree to a contract there is a natural disaster which renders the crop yield sufficiently low, the tenant will have the right not to pay the full amount of the rent that he was supposed to pay" (Basu, 1994, p.5). The studies by Stiglitz and Weiss (1981) Brealey and Myers (1988) and Reddy (1990)

supported the axiom.[8] Basu (1994) further argues that under this scenario the tenant will prefer to select riskier projects (fixed rent) whereas the landowner would prefer the less risky project (sharecropping) which reduces the tension between both the agents and hence, may be more preferred.

The laws of inheritance and property relations, especially the Dayabhaga (Eastern India) and Mitakshara (Western India) systems were emphasised by Mitra (1983) to explain the prevalence of sharecropping.[9]

It is more often argued that in a rural backward economy the landowners and tenants interact in a number of ways. This may lead to the interlocking of land with credit and output markets.

### 1.1.3 Interlocking of Markets:

Considering the interlinkage between land, labour, credit and output markets Bhaduri (1973) argues that landlords resist

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[8] "Systematic data on this is difficult to find out but casual empiricism - primarily by talking to individual farmers and on some occasions to sons of farmers who have abandoned the paternal profession to become academics-suggests that the axiom is true. There are reasons to believe this axiom has also been historically valid" (Basu, 1994, p.5).

[9] Under 'Mitakshara' system the law of primogeniture is a positive principle. In this case the father and the eldest son have equal rights in the household property. In other words, after the death of the father the eldest son steps into the management of family property and, hence, the family farm is not fragmented from generation to generation. In contrast to it, under the Dayabhaga system the law of primogeniture is not a positive principle. All sons and daughters have equal claim to family property which leads to fragmentation of ancestral property. As a result, the unit of production becomes uneconomic compelling the cultivator either to lease-in or lease-out land.

innovations because they reduce the demand for credit by the tenant and hence profit of the landlords. Srinivasan(1979) using Bhaduri's model has argued that Bhaduri's results require that loans may be taken as inferior goods. This is because if it is normal then an increase in income on the part of tenants will lead to a rise in demand for loans and consequently it would raise the income of the landlord-cum-lender. Griffin (1974), Newbery (1975), Ghose and Saith (1976) and Raj (1978) among others argue that it is rather a weak constraint on adoption of technical progress particularly in the socio-economic context of poor villages. They argue that if the landlords have enough power to exploit their tenants then they can also extract the extra gain from innovation by changing their share, the interest rate, other terms and conditions of tenancy. Braverman and Stiglitz (1982) and Mitra (1983) also questioned the exploitation of tenants through interlinkage suggested by Bhaduri. Braverman and Stiglitz (1982) argue that if the interlinkage of markets is a device through which a tenant is exploited by the landlord then why could the landlord not do so simply by reducing the share on the share contracts. They pointed out that in a situation where there are important moral hazards interlinkage of land and credit contracts can be used as a screening device to identify the more able potential tenants.

In a subsequent article Braverman and Stiglitz (1986) argued that demand for credit may either increase or decrease as a result of innovation and it depends on the probability distribution of yields and the tenants' utility functions. A decrease in tenants' demand

for credit is neither necessary nor sufficient for landlords to resist innovations.[10]

Braverman and Guasch (1984) linking it with the sharecropping laid prime importance on monitoring labour effort. They argue that in an economy in which labour effort is not observable (as it is heterogeneous) the interlinkage of sharecropping and credit contracts acts as a screening device.

Bardhan (1980) observes that one of the major forms in which land and labour markets are interlocked is through the institution of sharecropping tenancy which serves the purpose of both the parties: reduce supervision and monitoring cost of landlords to zero and provides sustained employment to the agricultural labourers with full utilisation of non-marketable family labour and draught animals.

Taking into account the interlinkage between credit contracts and formal and informal labour tying arrangements he pointed out that in a weather dependent agrarian economy, usually the employers prefer to contract with the workers to get a dependable supply of labour especially to reduce the recruitment cost in the peak season. For this they provide wage advances long before the beginning of cultivation and give consumption credit sometimes at interest rates below that charged by the money lenders.

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[10] "The presence of interlinkages between credit and land markets does not necessarily imply either resistance or encouragement to the adoption of technological innovations" (Braverman and Stiglitz, 1986: 329).

However, the exploitation of tenants through interlinkage was explicitly mentioned by Bharadwaj (1974). "When a landlord combines the functions of a lessor and a merchant, the terms of the lease are not only themselves quite stringent (given his position vis-a-vis the tenants in the lease market) but quite often include stipulations as to what crops the tenant ought to grow and the mode as well as terms of payment of rent. For instance, he can dictate the rent to be paid in kind and the time of repayment" (Bharadwaj, 1974 p. 4). The landlord may get unpaid and underpaid services from the tenant if the land is under personal cultivation. Further, if the landlord provides credit or consumption loans then he may restrict the tenant's choice in production and selling of output in the market. As a result, the landlord can get enough profit by selling the produce when the price reaches the maximum.

If we consider the definition mentioned above then Bhaduri's model strictly speaking reflects inter-relation of markets rather than interlocking of markets (Balakrishnan, 1984)[11]. Basu (1984) argues that interlinking of credit transactions is considered as a means of reducing the supervision costs which is needed to limit the potential for loan default to tolerable limits. Eswaran and Kotwal (1985) also emphasise on the supervision cost of labour which can be reduced by the interlinkage of patron-client variety.

The above discussion reveals that diverse views have been put forth by different schools of thought regarding the prevalence of

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[11] "....the tenant's involvement in the land market per se does not force him into any specific form of involvement in the credit market. For the tenant may desist from taking a consumption loan form the landlord." (Balakrishnan, 1984: 63).

agrarian relations in India. One school of thought, highlights the role of landlords in enticing the tenants into debt traps and obstructing the adoption of new technology, argue that there is no question of development of the agrarian economy. In contrast, others argue that the stereo type master-serf relationship no longer prevails. Rather the landowners and tenants adopt to the changing environment.

The studies discussed above reflect the macro picture of the economy and may not fully capture ground realities at a micro level. The present study makes an attempt to analyse the agrarian relations with the help of a micro case study of two villages in Orissa.

## Section 2

### 1.2.1 Agrarian Relations in Orissa:

Historically, Orissa was under different political administration during different periods. And this has had a direct impact on the tenurial conditions of the economy. Das (1976) pointed out that the landlord tenant relationship is characterized by the exploitation of tenants by landlords.[12] Taking into account the patterns of land lease, he argued that landowners prefer to lease-out land to small tenants rather than to landless and big tenants. Due to lack of other sources of income, small tenants are expected

[12] The rack renting, eviction and exploitation of tenants have been rampant in the state for many decades and the evils of tenurial systems are so deep rooted that the various land legislation measures during the Post Independence period more or less failed to achieve their purpose. The old pattern of feudal landlordism appears to be still persisting in many villages of Orissa.

to put in more effort (using family labour) on leased-in land to augment the output, leading to a rise in landowner's share. Also, the lack of adequate resources with the landless tenants and the fear of negligence in cultivation by big tenants restrict their participation to some extent. Secondly, the land owners prefer to lease-out small pieces of land to a large number of tenants because it increases their social status and helps to get free labour service from tenants. He also noted that the distress conditions of the landowners, social factors like caste and the traditions of the big land owners to continue that practice played important roles in leasing-out the land. Further, the lease condition is determined by various factors such as the initial resource position, adoption of new technology and agro-economic conditions.

On the other hand, Sarap (1991) pointed out that contractual arrangements in the north-western part of Orissa (especially Sambalpur District) have changed to a great extent in the recent past. Taking into account the consumption loans provided by the landowner, he argues that they are interest free because the landowner tries to cement the relationship with the labourers. If they violate the contract then interest will be charged on it. The landowners used to provide some incentive such as a piece of land, clothes, house site, etc. to increase the output and to reduce the supervision costs to zero.

Further, the recent trend reflects an increase in the demand for group labour and decline in the practice of exchange of labour. The operation of economies of scale (as it is difficult to measure individuals' work qualitatively or quantitatively) accompanied by

reduction of search cost and desire to finish the work in time, the small and medium farmers prefer to demand group labour. This reflects a rise in the bargaining power of the labourers during the last couple of decades. The exchange of labour declined following the introduction of irrigation (after Hirakud Dam became operative) which led to adoption of HYV seeds, rise in intensity of cropping, multiple cropping and hence, the farmers are busy with their work in most of the times.

Moreover, the dynamics of change which needs to be emphasized is the abolition of bonded labour and payment of wage in cash rather than in kind to the farm servants, keeping them as daily workers. It is accompanied by the shortening of duration of contract and circulation of farm servants. This can be explained by taking into account the immigration of labour which motivates the landowners to employ the labourer who can work better, in terms of increased productivity, and at a lower wage rate rather than stick to a particular labour who demands high wages. Further, as the labourers can earn more in construction works, especially in the brick making industry and construction activities, they do not want to stick to a particular person for a long period.

In the light of the issues discussed above the present study attempts to explore the impact of institutional and technical factors on changing agrarian relations in a semi-subsistence economy, which is characterised by underdevelopment of land, labour, credit and output markets.[13]

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[13] Here, semi-subsistence is analogous with the backward economy where land, labour, credit and output markets are not well developed or developed only partially.

Section 3

### 1.3.1 Objectives and Scope of Study:

The objectives of the study are the following:

(i) To analyse the functioning of the four agrarian markets in a backward economy.

(ii) To study the changing agrarian relations between the land owning and the tenant classes.

(iii) To examine the issue of off-season outmigration of tenants/labourers, and

(iv) To make a comparative analysis of the agrarian econoies of the unirrigated and irrigated villages.

### 1.3.2 Data Source and Sampling Design:

This study is mainly based on the sample survey of the villages under consideration. To make a comparative study, a dynamic village (irrigated) Angula (Balasore Dist.) has been taken into account. The unirrigated village (Rajgurpur) as a whole is taken as one unit, even though there are some households who come from a nearly hamlet to participate in the agricultural operations in this village. The households who participate in the agricultural activities are classified into various categories depending on their main occupations. They are owner-cultivators, tenants, owner-cum-tenants, rentiers, owner/cultivator-rentiers and land less agricultural labourers. The total number of samples are 100 out of which 60 households are taken randomly from the unirrigated village and the remaining from the irrigated one. This was done on the basis of proportional stratified sampling. The data are also collected from the secondary sources such as Orissa Statistical Abstract, Orissa Economic Review, Agricultural Wages in India,

Agricultural Situation in India, Farm Management Studies, District Gazette Balasore, Revenue Inspector Office, Ghanteswar.

### 1.3.3 Organisation of the study:

An attempt has been made in Chapter 2 to study the emergence of new agrarian relations in Rajagurpur village. Further, the role of socio-economic factors in changing agrarian relations is documented. The evolution of land market is analyzed in Chapter 3. The focus here is on how and why the land lease market has emerged and its impact on the development of the agrarian economy. Besides, patterns of land lease, types of lease, terms and conditions and preference for particular group are also examined in this chapter. Chapter 4 studies the functioning of labour, credit and output markets and their roles in the changing occupational status of the households. Chapter 5 sketches the cost-benefit aspect of agricultural production. In the cost aspect, trends in wage rates and price of other factors of production over the last decade have been analyzed. Chapter 6 maps out a comparative study of the backward village (Rajgurpur) with the irrigated one (Angula). To compare and contrast, the patterns of land distribution, employment and unemployment and role of irrigation are taken into account. Finally, in the last chapter, the various strands of arguments are brought together to suggest some policy measures, which if implemented may be beneficial to the village economy.

# Chapter 2
# Emerging Trends in Agrarian Relations

## Introduction:

The agrarian relations are the socio-economic interactions between the groups/class in an agrarian community. These relations affect the socio-economic conditions of the rural households and hence, the development of the economy. They pass through different phases over time depending on various factors such as population growth, institutional reforms, technological change etc. For instance, in a state of declining land-man ratio with skewed distribution of land, the landless agricultural labourers have to depend on the landowners for their survival. This is accentuated in the absence of other alternative employment opportunities in an economy. Thus, it follows that the economic status of the rural households can be primarily judged from the extent of land owned. Infact, in a backward economy having absence of technological change, owning land alone does not necessarily influence the economic status of the landowners unless it is profitable for them. In a state of declining profit from land associated with the available employment opportunities, the landowners may start leasing out or selling away land to the tenants. As a result, the occupational status and hence, the socio-economic conditions of the households will undergo a process of transformation. This Chapter seeks to examine the changing agrarian relations in the village surveyed.

The landowners were a socio-economically better off social category cultivating land either by employing hired labour or family labour

or both. The recent trend shows a sharp decline in self cultivation and emergence of land market in the village surveyed. This led to a change in occupational status of the households. That is, on the one hand, the owner-cultivators became rentier/owner-cultivator-cum-rentiers whereas, the landless agricultural labourers became tenants. The rationale behind a change in occupational status can be analysed by considering both socio-economic and agro-climatic conditions.

This chapter is broadly divided into three sections. Section 1 gives a brief introduction of the physical and demographic features of Orissa in general and Balasore district and the village under study in particular. Section 2 addresses to the question of the transition from owner cultivation to tenant cultivation. The last section examines the nature and pattern of agrarian relations.

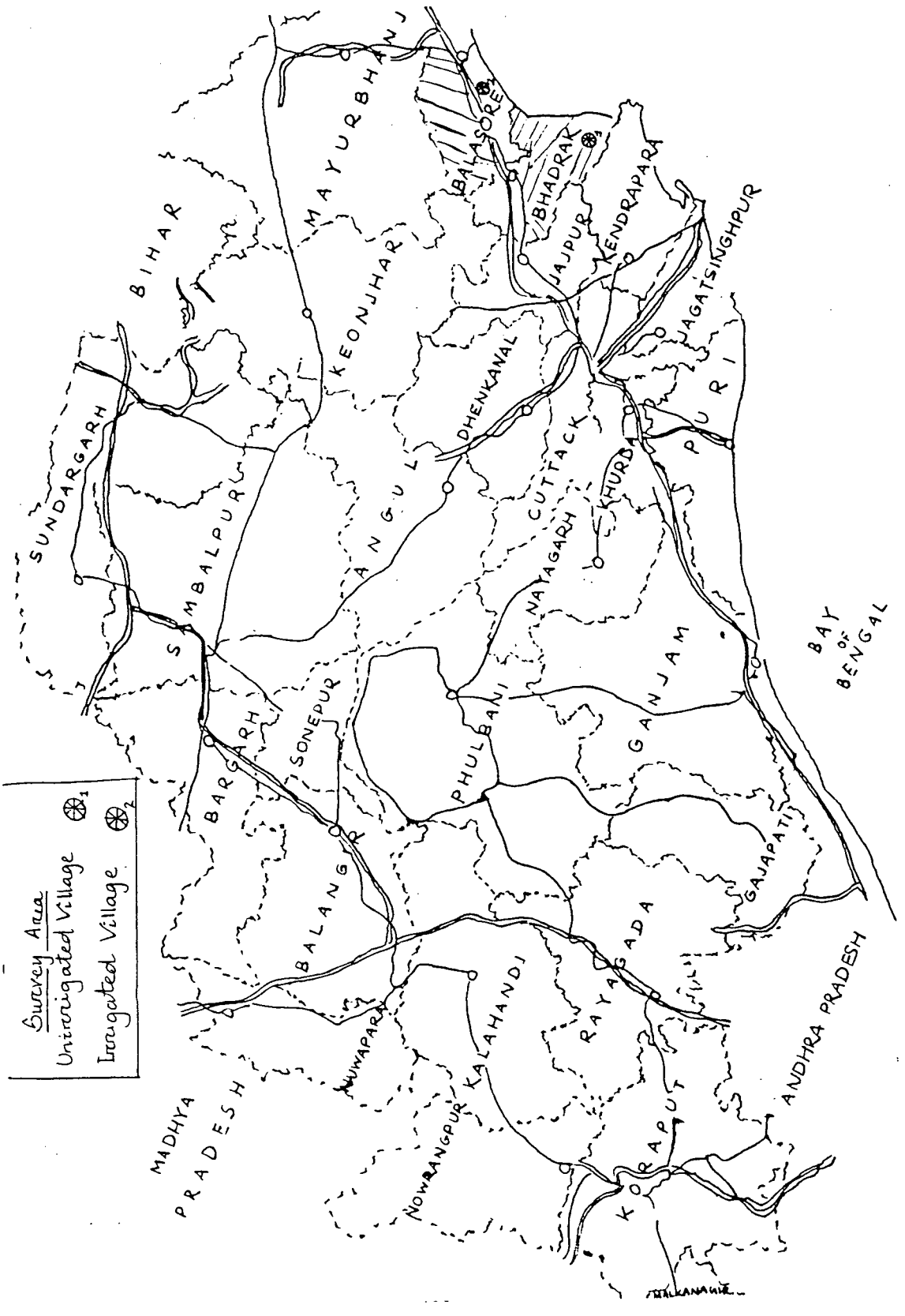
## Section 1

### 2.1.1 State of Orissa:

#### 2.1.1.1 Physical Features:

Orissa is situated in North eastern part of the Indian Peninsula (17° 48' N to 22° 34' N and 80° 29' E to 81° 24' E) and extends over an area of 155,707 square kms (See Map No.2.1). It has a coast line of nearly four hundred kms along the Bay of Bengal. The state has four well defined physical regions-namely northern plateau, the coastal plains, the eastern Ghats and the Central table lands. Our study is confined to a part of Coastal belt of Orissa.

Map 2.1: Administrative Map of Orissa



2.1.1.2 Demographic Features:

Orissa is considered as the poorest state in the country where around 58 (Urban: 57.9, Rural: 61.5) per cent of the total population was below the poverty line in 1988-89 (Expert Committee, Government of India, 1993). Around 86.62 per cent of the total population, who live in rural areas, primarily depend on agriculture and allied activities for their livelihood. The decennial growth rate of population during the last decade is 20.06 per cent and it is 17.91 per cent and 36.16 per cent for rural and urban areas respectively. However, around 37.53 per cent of the total population ((Male: 53.74 %, Female: 20.85 %) are total workers in 1991 which is almost equal to the national average(India: 37.64 %, Male: 51.52, Female: 22.69). Among the main workers 44.21 %, 28.85 %, 3.47 % and 23.47 per cent are cultivators, agricultural labourers, households industry workers and other workers respectively.[14]

There is wide spread inequality in land holdings in Orissa. For instance, the marginal and small farmers are numerically high (77.5 per cent of the total holdings) with 41.7 per cent of total operational land under their control.[15] For small and marginal cultivators the average size of operational holding is not only small (0.79 ha.) but also widely fragmented. This inhibits on-farm investment in agriculture.

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[14]Census of India, 1991, Paper 3 of 1991, Series I.

[15]Statistical Abstract Of Orissa, 1991. p.42

2.1.1.3 Agriculture:

The economy has been affected either by draught, cyclone or flood in almost every year during the last three decades. There has been a wide fluctuation in rain fall over the years and the normal rain fall is only 1482.2 millimetres (Dalua, 1991: 2). The consumption of fertilizer is very low (20.70 kg per hectare) in comparison to almost all the states. The yield rate of rice in 1990 is not very impressive, i.e., 1198 kg per hectare (India: 1751 kg/ha.)with wide fluctuations across time. It is even lower than the neighbouring states (West Bengal: 1795 kg/ha. Andhra Pradesh: 2448 kg/ha.).

2.1.2 Balasore District:

2.1.2.1 Physical Features:

It is situated in the north eastern region of Orissa and lies between 20° 43' N and 21° 59' N latitude and between 86° 16'E and 87° 29'E latitude. The district lies in the northern part of Orissa with the Bay of Bengal in the east, sharing common borders with the district Keonjhar in the west and the district of Midnapur (West Bengal) in the north. It is the smallest district in geographical area extending up to 6,311 square kilometres.[16] This is composed of three geographical regions viz., the coastal belt,

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[16] It was the smallest district till 1992. On 1st April 1993 the district Balasore was bifurcated into two districts: Bhadrak and Balasore. Earlier the number of districts was 13 which has increased to 30 at present.

However, initially both the irrigated and unirrigated villages of our survey came under the administration of Balasore District. At present only the irrigated village comes under the administration of Balasore District whereas the unirrigated village comes under the administration of Bhadrak District.

inner alluvial plain and north-western hills.[17] This is also intersected by several rivers and streams. The important river and streams of the district are *Subarnarekha* in the north, *Budhabalang* in the central region and *Baitarani* in the southern periphery. In the south, the area is traversed by the tributaries of the Baitarani viz., *Salandi*, *Genguti* and *Matei* which are responsible for drainage of enormous mass of water causing extensive floods particularly in Bhadrak district. The soil of the district is mainly alluvial and laterite besides a small strip of saline soil along the coast. The soil in the central region is composed mostly of clay, clay loam and sandy loam.



2.1.2.2 Demographic features:

A comparative study of the population with the area shows that it occupies only 4.05 per cent of the whole land but ranks fifth with respect to the population size. This is also obvious from the density of population as it ranks second with 443 people per square kilometre, which is more than twice the population density of Orissa. The district is educationally advanced in comparison with other districts. The literacy rate for the district as a whole is 58.78 per cent (Male: 72.55 %, Female: 44.57 %). The decadal variation in population is 19.50 which is lower than the state, that is, 24.13.

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[17] The coastal plain is a narrow maritime strip of land 26 miles in width, running along with the coastal line. Towards the beach there are sand dunes and ridges covered with creepers traversed by brackish streams. This part is not fit for cultivation but considered suitable for salt manufacture. The second tract is the deltaic alluvial plain which is covered with vast stretches of fertile paddy land and is most populous. The third region comprising mostly Nilgiri sub-division is predominantly hill terrain covered with tropical semi ever green forests.

2.1.2.3 Agriculture:

Meher and Pasayats (undated) study revealed that in 1990 it ranked sixth from thirteen districts (marginally developed) in 1990 among the districts of Orissa in terms of agricultural development. The consumption of fertilizer is very low (27 kg per hectare in 1989-90) and the yield rate of paddy per hectare (13.50 quintals) is also small. In 1980 only 12.27 per cent of the cultivable area was irrigated. The percentage of irrigation potential created in Kharif Season to net area sown is 36.36 in 1989-90.[18]

## 2.1.3 Village under study: A Brief Introduction

This study is confined to Rajgurpur village (Dist. Bhadrak) of eastern Orissa (see Map No.2.2). The total area of the village is 69.61 hectares. Although it is located in the coastal belt, due to lack of irrigation it is considered as a rainfed area. Cultivation is the main occupation of the households.

### 2.1.3.1 Climate:

The district is frequently prone to cyclonic storm and depression which form in the Bay of Bengal. Being a Coastal district the climate is generally hot and humid. The mean temperature varies from $22^0$C to $32^0$C. The normal rain fall in the district is 1568 mm.

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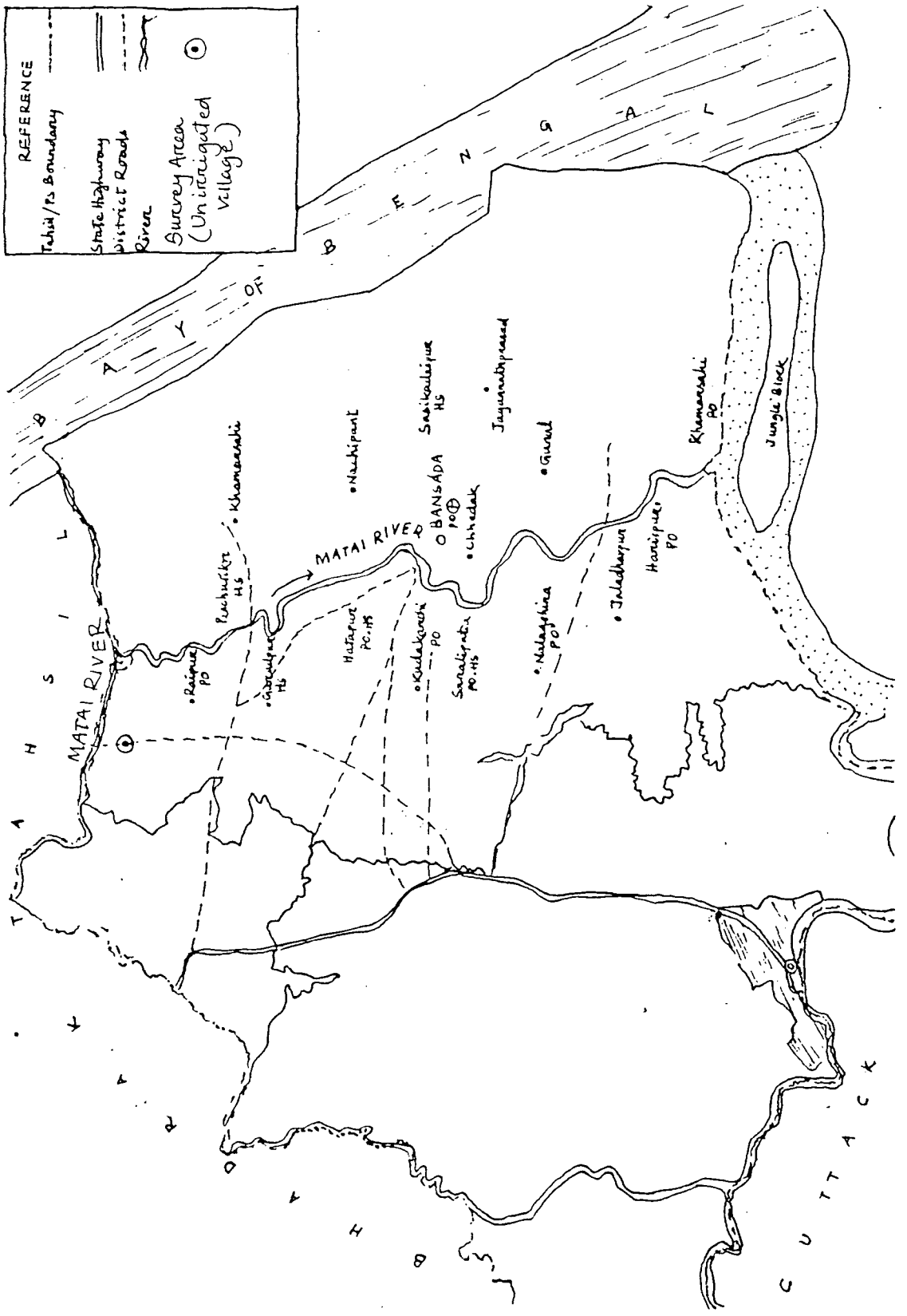
[18] Out of the 647000 hectares of geographical area, the net area sown in 1989-90 is 456000 hectares of which 418000 hectares is under paddy (256900 hectare during Rabi season), the principal crop of the district. The yield rate of Paddy is 13.5 quintal per hectare, which is lower than the state average. Other than paddy crops such as green gram, jute, chilly, ragi, blackgram, ground nut, and mustard are also grown.(Orissa: 14.31).

In 1989-90 165780 hectares and 88010 hectares were irrigated in the Kharif and Rabi season respectively. Further, in Kharif season 57 per cent of the area was irrigated through surface irrigation and the rest through ground water.

Map 2.2: Administrative Map of Chandbali



## Section 2

### 2.1 Transition from Owner Cultivation to Tenant Cultivation:

There has been change in the agrarian relations in Orissa. This change is to be seen especially in the villages where traditionally non-cultivating rentier classes are predominant. The change is visible not only in terms of shifts from owner-cultivation to tenant cultivation but also in the relative economic balance between the actual cultivator and rentiers. It is proposed to capture these changing agrarian relations from a case study of a village from Bhadrak district of Orissa. The recent trend shows a decline in self cultivation and emergence of lease market, which is evident from Tables 2.1 and 2.2.

Table 2.1: Changes in occupational status

| Year | O.Cult to Rentier/ O.Rentier | L.Agl.lab/ Cultivator to Tenant/ O.Tenant | Total |
|---|---|---|---|
| 1985-86 | 0 | 0 | 0 |
| 1986-87 | 2 (9.09) | 0 | 2 (3.33) |
| 1987-88 | 3 (15.0) | 2 (5.26) | 5 (8.62) |
| 1988-89 | 5 (29.4) | 8 (22.2) | 13 (24.5) |
| 1989-90 | 4 (33.3) | 9 (32.1) | 13 (32.5) |
| 1990-91 | 4 (50.0) | 7 (33.3) | 11 (40.7) |
| 1991-92 | 2 (50.0) | 4 (50.0) | 6 (37.5) |
| 1992-93 | 2 (100) | 3 (37.5) | 5 (50.0) |
| Total | 22 | 33* | 55* |

Note: 1 Figures in parentheses represent the percentage of households who changed their status in that year.
2 * Five households did not change their status.
3 O.Cult: Owner cultivator, O.Rentier: Owner Rentier L.Agl.lab.: Landless Agricultural Labourer, O.Tenant: Owner Tenant.

From Table 2.1 it is discernible that out of a total of 60 households 55 have changed their status. The remaining five households who have not changed their status belong to the category

of landless agricultural labourers.[19] The change in status of the families began in 1986-87. The most interesting feature which emerged is that all the households in the rentier/owner-rentier group (22) were formerly owner cultivators. It may be mentioned that out of the 33 households taken from tenant and owner-tenant groups, twelve and eight were landless agricultural labourers and owner cultivators respectively. The remaining 13 households, who were owner cultivator-cum-agricultural labourer earlier on are only owner cultivators now. This is because they are no longer demanded by the farmers as they stopped cultivation. Hence, they can either lease-in land or cultivate only their own land.

Moreover, after the emergence of a lease market the area under tenancy has gone up at a faster rate and currently around 90 per cent of the total land owned by Rentier and Owner-Rentier is under tenant cultivation. This is clear from Table 2.2.

Table 2.2: Area Under Tenancy

| Category: | Rentier | O.Rentier | Total |
|---|---|---|---|
| No.of H.Hs | 17 | 5 | 22 |
| Land owned (Acres) | 169.25 | 44.5 | 213.75 |
| Land Leased-out (Acres) | 165.75 | 26.75 | 192.5 |
| %age of total land owned | 97.93 | 60.11 | 90.06 |

From Table 2.2 it can be inferred that land owned by the rentier group is 169.25 acres out of which 97.93 per cent of land is leased out. The remaining 3.5 acres of land is mortgaged. Whereas it is only 60.11 per cent for owner-rentier group as they are in the process of leasing out their whole land. Some landlords who wanted

[19]Out of the five households, two are physically handicapped and hence can not cultivate the leased land properly.

to cultivate certain variety of paddy and those who do not undertake any non-farming activities, hesitate to lease out the whole land. Also, sometimes the need for more straw for their cattle and thatched houses compel the landlords to cultivate part of their total land.[20] However, the area under tenancy to the total land owned by all the households in the village is 42.61 per cent only. Now, let us analyse the reasons for changing occupational status.

Section 3

**2.3.1 Changing Occupational Status:**

As mentioned earlier the evolution of agrarian relations as reflected in the change from owner cultivation to tenant cultivation can be explained by considering the socio-economic, agro-climatic and cost-benefit factors. As for the socio-economic aspects, emphasis is laid on the patterns of land distribution among the households as a whole and among different social groups (castes). Further, economic condition of different groups will be analyzed in this section.

**2.3.2 Land Distribution:**

The distribution of land in the village is quite uneven and mostly it is concentrated in the hands of the Brahmin households who depend on others to carry on cultivation.[21]

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[20]In the case of sharecropping which is widely prevalent in the study area, straw is also divided on 50:50 basis.

[21]The custom and tradition which prevailed in rural Hindu Society restrict the Brahmin households to participate actively in the process of cultivation. For instance, the Brahmins can not touch the plough. This has implications for land-lease market.

Table 2.3: Patterns of Land Distribution (Area: Acres)

| Size of Holding | No of H.Hs | Percentage of H.Hs | C.P. of H.Hs | Land Owned | % of L.owned | C.P. Land owned |
|---|---|---|---|---|---|---|
| Landless | 51 | 38.93 | 38.93 | 0.00 | 0.00 | 0.00 |
| 0.0- 0.99 | 16 | 12.21 | 51.15 | 8.50 | 1.88 | 1.88 |
| 1.0- 2.49 | 17 | 12.98 | 64.12 | 27.25 | 6.03 | 7.91 |
| 2.5- 4.99 | 14 | 10.69 | 74.81 | 44.50 | 9.85 | 17.76 |
| 5.0- 9.99 | 21 | 16.03 | 90.84 | 139.00 | 30.77 | 48.53 |
| 10.0-19.99 | 5 | 3.82 | 94.66 | 62.50 | 13.84 | 62.37 |
| 20 & above | 7 | 5.34 | 100.00 | 170.00 | 37.63 | 100.00 |
| Total | 131 | 100.00 | | 451.75 | 100.00 | |

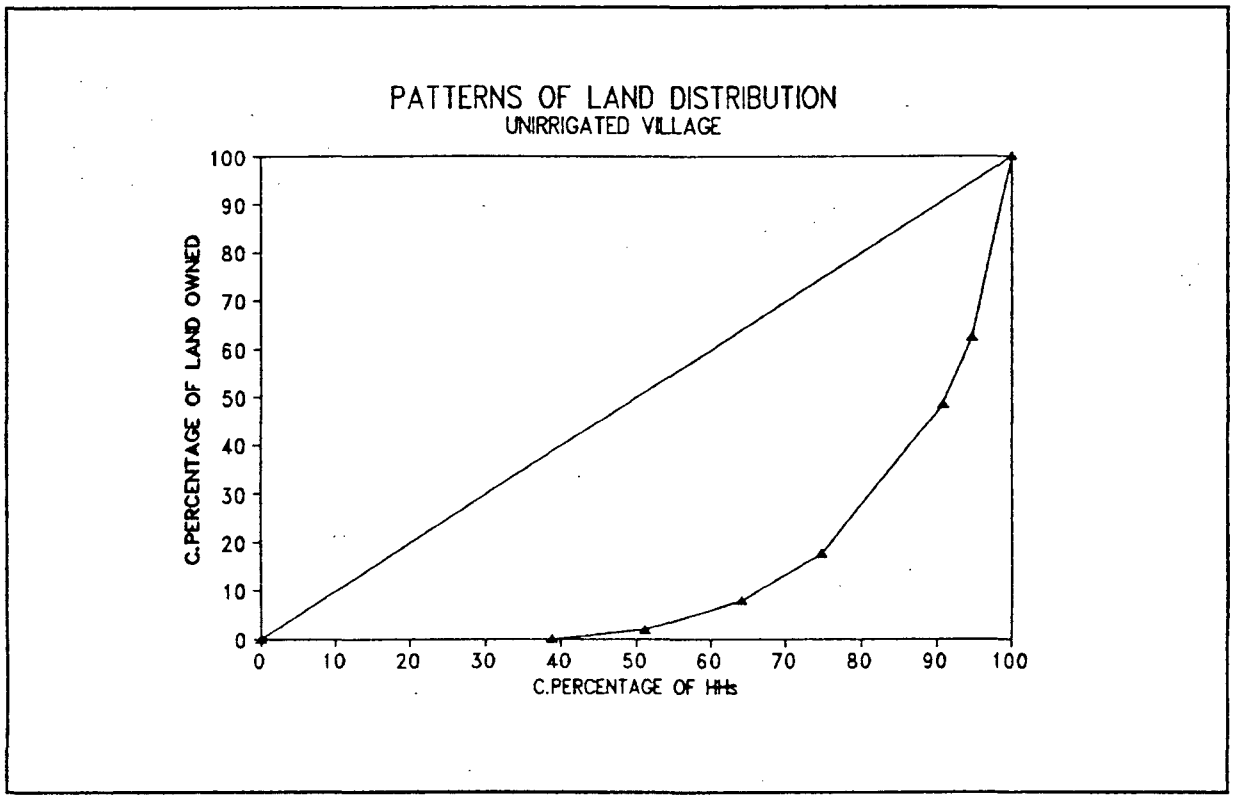
Note: * C.P.:Cumulative percentage

Table 2.3 displays the patterns of land distribution among various households in the village. From this it is apparent that the bottom 38.93 per cent of the total households own no land at all while the top 5.34 per cent own 37.63 per cent of the total land. Moreover, around 75 per cent households own only 17.76 per cent land while the remaining 82.24 per cent is owned by 25 per cent households. The Lorenz Curve of land distribution with a Gini Coefficient 0.72 is given in Figure 2.1. The distribution of land is also uneven across castes as evident from Table 2.4.

Table 2.4: Patterns of Land distribution among various Castes (Area in Acres)

| Category | No of H.Hs | Percentage of total H.Hs | Land Owned | Percentage of total land owned |
|---|---|---|---|---|
| Brahmin | 46 | 35.11 | 309.75 | 68.57 |
| Others | 64 | 48.85 | 126.25 | 27.95 |
| SC | 21 | 16.03 | 15.75 | 3.49 |
| Total | 131 | 100 | 451.75 | 100 |

Figure 2.1




It is clear from Table 2.4 that the Brahmins, who account for 35.11 per cent of the total households, acquired 68.57 per cent of the total landed assets. Contrary to this, the schedule caste households, who constitute a little over one-fifth of the total households owned only a meagre amount of 3.49 per cent of total land. The rest 27.95 per cent of land is owned by other categories who comprise nearly half (48.9) of the total households. The uneven distribution of land between the Brahmins and non-Brahmins led to mutual dependence on each other. Apart from the caste constraint one may also look into other socio-economic factors.

### 2.3.3 Socio-Economic Conditions:

If we compare and contrast the socio-economic conditions of different categories of households then it is evident that the

rentier and owner-rentier groups are socio economically better off in comparison with other categories. As mentioned earlier, the land distribution is skewed and the Brahmins (who are generally rentiers) constitute 35.11 per cent of the total households but own around 69 per cent of the total land. Further, the literacy rate for the rentier group is significantly higher than the other categories. From Table 2.5 it is evident that 90.35 per cent people in the rentier category are literate while it is the lowest for the tenant groups (6.4 per cent).[22]

Table 2.5: Literacy rate of Households

| Category | Literacy rate (%) |
|---|---|
| O.Cultivator | 71.83 |
| O. Rentier | 64.28 |
| O. Tenant | 34.61 |
| Tenant | 6.41 |
| L.Agl.lab | 28 |
| Rentier | 90.35 |

Further, employment in the service sector for the rentier and owner-rentier group is also higher than other categories. This is clear from Table 2.6. This shows that their involvement in alternative avenues leave them with no time for supervision and hence, it indirectly compels them to lease out.

[22] According to the Census, 1991 an individual above 7 years of age is literate if he/she can both read and write with understanding. However, we consider a person as literate if in addition to the above the individual is educated at least upto 5th standard.

Table 2.6: Patterns of Employment

| Category | Agl | Service | Cities | Odd jobs | Unemployed | Total |
|---|---|---|---|---|---|---|
| O.Cult. | 16 | 2 | 2 | 13 | 4 | 37 |
| | (43.20) | (5.41) | (5.41) | (35.14) | (10.81) | (100) |
| O. Rentier | 2 | 2 | 0 | 2 | 0 | 6 |
| | (33.33) | (33.33) | | (33.33) | | (100) |
| O. Tenant | 19 | 0 | 2 | 2 | 1 | 24 |
| | (79.20) | | (8.33) | (8.33) | (4.166) | (100) |
| Tenant | 34 | 0 | 0 | 6 | 0 | 40 |
| | (85.00) | | | (15.00) | | (100) |
| L.Agl.lab | 10 | 0 | 0 | 1 | 0 | 11 |
| | (90.90) | | | (9.09) | | (100) |
| Rentier | 2 | 21 | 0 | 7 | 8 | 38 |
| | (5.26) | (55.26) | | (18.42) | (21.05) | (100) |

A comparative study of employment[23] pattern of various categories suggests that the absorption of individuals in agricultural sector is more in the case of landless agricultural labourer (90.9) followed by tenants (85), owner tenants (79.2) and owner cultivators (43.2). However, it is low for rentier (5.26) and owner-rentier (33.33) groups. On the contrary the percentage of people unemployed is highest in rentier group followed by owner cultivators.

The argument behind it is that the literacy rate of households in the rentier and owner-rentier groups are comparatively higher than that of other categories. Even the proportion of households having higher education is comparatively more in these categories. It is an accepted fact that once the students go for higher studies they do not come back to agricultural sector and they prefer to stick to permanent job in the service sector or remain unemployed. As a result, these households have no one to look after the process of

[23]It excludes employment of women as they are generally house wives. And smaller proportion among them work in the agricultural sector.

cultivation and hence, it increases the supervision cost. Those who are not highly educated prefer to invest money on business activities to earn their livelihood. Given the above constraints now let us look into the rationale of the producer from the Cost-Benefit aspect.

### 2.3.4 Cost and Benefit:

A rational producer takes into account both cost and profit to decide whether production has to be carried on or not. To augment the profit there is need for production of commercial output[24] which generally depends on the availability of assured water, credit facilities available, market for the product and infrastructure facilities. However, here we are ruling out the possibility of producing commercialized output mainly due to absence of irrigation and extensive services.[25]

One of the major factors which influences the cultivators to lease out land is the increase in cost of production, especially the rise in wage rate at a fast rate in the village during the last seven to eight years. This will be explained in more detail in chapter 4.

Besides the wage rate, supervision costs can also have an impact on farmers' decision making process on the agrarian relations or the nature of agricultural production. This is evident from Table 2.7.

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[24]The farmers argue that traditional/improved variety of paddy they do not get enough profit.

[25]Absence of irrigation does not necessarily rule out production of commercialised but introduction of irrigation generally encourages farmer to produce commercialised output.

Table 2.7: Reason for leasing out land

| Category/Reason: | Wage Costs | Wage & Sup. Cost | Total |
|---|---|---|---|
| Rentier | 14 (82.35) | 3 (17.65) | 17 (100.00) |
| Owner-Rentier | 4 (80.00) | 1 (20.00) | 5 (100.00) |
| Total | 18 (81.82) | 4 (18.18) | 22 (100.00) |

Note: Figures in the parenthesis are in percentages

Increase in wage rate coupled with the supervision cost compel the cultivators to lease out land. From Table 2.5 it can be inferred that 81.82 per cent of the total households have reported an increase in wage rate as the major factor which directly or indirectly forced them to lease out their land. Further, 18 per cent of the total households emphasized on both wage costs and supervision costs together as factors influencing the decision to lease out land.

The rentiers argue that they prefer to lease out land because of the increasing tendency among the agricultural labourers to work less and demand for higher wages. Here two things need to be considered to explain the logic behind it. The land lords who lease out land observed that agricultural labourers work harder when they lease-in land and become tenants. As there is a positive relationship between the intensity of work done and the output produced, the labourers work more in the leased in land.

Increase in cost of production can be compensated for by a rise in revenue which exclusively depends on the price of food grains. The revenue earned by the farmer is very low and even insufficient to

meet the cost of production. This can be explained by considering the prevailing market price of food grains (paddy) which is much lower (as it varies from Rs.150 per quintal in the harvest season to Rs.250 in the lean season) than that fixed by the Government (Rs.320). Further, small and marginal farmers who depend solely on the money income by selling the agrarian produce, can not wait till the lean season when the price reaches its maximum. This reflects lack of organization among the farmers and indirect refusal of the mill owners to pay the price fixed by the Government. Thus, it can be said that increase in cost not accompanied by a rise in revenue compelled the non cultivating households to stop self cultivation and lease out their lands to tenants. Now, let us analyse the impact of irrigation and environment.

### 2.3.5 Irrigation and environment:

Absence of assured water in the Rabi-season is primarily due to lack of Governments investment on major and minor irrigation projects. Further, saline intrusion which is due to the flow of saline water to the low potential area that generated through excessive extraction of ground water, prevents the private investors to invest on minor irrigation schemes such as lift irrigation. This is so for a number of reasons. First, the village is situated along the banks of the river *Matei* which is connected with the Bay of Bengal and during high tide the sea water mixes with the river water (see Map No.2.2). The second point to be stressed is the prevalence of high interest rate in the informal credit market. This also provides a better option for individuals with some credit to take to moneylending rather than invest on invest on irrigation projects. Third, the persistence of low

voltage and frequent power failure coupled with non-availability of fuels (petrol and diesel) and a rise in their prices discourages the investors not to devote money on irrigation projects. Further, non implementation of land reform also plays a significant role in this direction.

Nonetheless, lack of irrigation has a dual effect on the agricultural production. First, it underutilizes the fixed implements such as livestock (ploughing animals), plough, tractor, pumpsets, spray machine etc. Secondly, it restricts adoption of HYV seeds, intensity of cultivation, multiple cropping etc. and hence, the yield per hectare clusters around 19 quintals which is very insufficient to meet the rise in cost of cultivation.

Conclusion:

There was a change in the agrarian relations in the village from around 1986-87. This is reflected in a shift from owner cultivation to tenant cultivation which is associated with a change in status from owner cultivator to Rentier on the one hand and from agricultural labourer to tenant on the other. This was primarily due to skewed distribution of land, increase in cost of production especially the rise in wage rate and supervision cost, a great variation in the patterns of employment of various categories of households and absence of assured irrigation in the Rabi season. This lead to the emergence of land lease market. In the next chapter we will take up the question of evolution and functioning of the land market.

# Chapter 3
# The Evolution of Land Lease Market

## Introduction:

In an agrarian economy where the distribution of land is quite uneven, the landless can survive either by working as agricultural labourers or tenants. For reasons explained in the previous chapter when the land owners gave up self cultivation and started leasing out land, land lease market began to emerge in the village under study. This is facilitated by the fact that landowners in the traditional societies hesitate to sell off their lands[26] or leave it barren as it is a principal source of income. In backward rural areas the prestige and power of households are also determined by the possession of land. Unless the households are forced by extreme circumstances generally they do not sell their land (Raj 1970, 1990; Bardhan 1973, 1984; Bharadwaj 1985). Further, in an under developed agrarian economy absence of major alternative investment opportunities outside the land and capital markets (Binswanger and Rosenzweing, 1986) restricts selling of land to some extent. Hence, a land market or more particularly a land lease market with land lord-tenant relationship comes into being.

The temporary transfer of land via tenancy, either by fixed -rent or share cropping arrangements, is an institution commonly found in the rural areas of many developing countries (Otsuka, Chuman and

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[26] The customs and traditions restrict selling of land to a large extent. Some households have strong belief that owning more land indirectly reflects God's blessing and vice-versa.

Hayami 1992). The landlord tenant relationship under any land tenure system cannot be studied in isolation. It is not merely a contractual relationship but is largely influenced by the socio-economic, political and geographical features of a region.

In this chapter we are dealing with the issues like the emergence of land market and its consequence on the agrarian economy. In Section 1 we try to examine how and why the land market has emerged in the village under survey? In Section 2 emphasis is laid on the patterns of land lease, terms, conditions and preferences for particular group etc. The rationale behind changing tenants, frequencies of change in tenants are also analyzed in this section. Section 3 seeks to examine the rationale behind wide spread prevalence of share cropping in the survey area.

In the literature explaining the logic behind land tenancy various factors such as social and historical factors, custom and tradition, allocation of resources are considered. For instance, if a land owner hires-in or hires-out the factors of production (including draft animal services and supervisors) that are optimal for the size of its land holding (without any need to adjust the size of its cultivated land area) then the incidence of land tenancy can be explained by considering social and historical factors or customs and traditions.

Similarly, the literature on resource adjustment, emphasising on the role of market imperfections in certain key inputs in production, such as draft animal power [Bell (1977), Bliss and Stern (1982)], managerial ability [Reid (1975), Bell and Zusman

(1976), Eswaran and Kotwal (1985)] Family Labour [Pant (1983)] and credit [Jaynes(1982), Kochar (1992)], suggest that costs associated with transactions in factor services, such as labour or bullock services lead to market imperfections or the absence of trade [Emmanuel and Skoufias (1995)]. Therefore, the households with excess land in relation to their factor endowments lease-out land while the households having surplus labour and/or bullocks in relation to their landholding lease-in land.

Demand for land is quite intense for the mass of land hungry small and marginal tenants looking for land for their survival. This is because they have no other employment opportunities, especially in the Kharif Season. From the supply side, the increase in cost of production accompanied by the social factors such as caste inhibitions force the landowners to lease out land. However, all these tenants do not have equal access to the lease market as the landlords take certain criteria into consideration.

## Section 1

### 3.1.1 Emergence of Land-Lease Market:

To examine whether land market as such prevailed earlier or not there is a need to divide the time period into two parts by taking 1987-88 as the dividing point (see Table 2.1, Chapter 2). The rational for considering 1987-88 as the turning point is that change in occupation had accelerated from that period. As mentioned in Chapter 2, out of a total of sixty households considered, fifty-five have changed their status. Comparing the activation of land market in two periods apparently, in the first period only seven households changed their status while the

remaining forty-eight changed in the next period. Besides, within a time span of three years, i.e., from 1988-89 to 1990-91, 37 households changed their status. Here we are not strictly ruling out the presence of land market before 1988 as initially a few landowners were leasing out a part of their total land if it is located in a place far away from their home or the land is less fertile. In these circumstances the households either preferred to accept fixed rent or share-cropping. For instance, if the land is less fertile, drainage system is not proper and consequently gross output is very low then landlords prefer to stick to fixed rent rather than share cropping.

Section 2

3.2.1 Patterns of Land Lease:

If the tenants are tied to a particular landlord and they do not have freedom to choose other landlords (Bhaduri, 1973). However, our survey results do not go along with his argument. In our survey it is observed that the landlords want to change their tenants more often despite the proven efficiency of the latter. To avoid the law of Adverse Possession landlords prefer to change their tenants once in two/three years[27]; this is evident from Table 3.1.

[27] There is no need to change the tenant within two to three years but the rentiers lack of proper knowledge about the Law of Adverse Possession, induce them to change the tenants more often.

Table 3.1: Distribution of Change in Tenants

| Category/Year: | one | 2 to 3 | 5 & above | No change | Total H.Hs |
|---|---|---|---|---|---|
| Rentier | 5 | 9 | 2 | 1 | 17 |
| | (29.41) | (52.94) | (11.764 ) | (5.88) | (1.00) |
| Owner-Cult/Rentier | 1 | 3 | 0 | 1 | 5 |
| | (20) | (60) | (0) | (20) | (100) |
| Total H.Hs | 6 | 12 | 2 | 2 | 22 |
| | (27.27) | (54.545) | (9.09) | (9.09) | (100) |

Note: 1 Figures in the Parentheses are in Percentages
2 Owner-Cult/Rentier: Owner-cultivator/Rentier

Table 3.1 displays the frequency of change in tenants in the unirrigated village. In the rentier group around 82 per cent households have changed their tenants within three years while the remaining 12 per cent change in five years and above. Again, only 6 per cent of people did not change their status at all.

Similarly, about 80 per cent of the owner-cultivator/rentier have been changing their tenants within three years; the remaining did not change their tenants. If we consider both the categories together then obviously within three years around 82 percent of the total households changed their tenants. Only 9 percent change once in more than five years while the rest of the 9 percent do not change at all.

Considering the rationale behind the change in tenants, the rentiers argue that tenant-inefficiency and the risk of losing land are the two major factors which motivate them to change the tenants more often; this is evident from Table 3.2.

Table 3.2: Reasons for Changing the Tenants

| Reason/ Category | Risk of Losing Land 1 | Tenant Inefficiency 2 | Strained Relations 3 | Both (1&2) 4 | No Change 5 | Total 6 |
|---|---|---|---|---|---|---|
| Rentier | 3 | 6 | 0 | 7 | 1 | 17 |
| O.C/Rentier | 0 | 1 | 1 | 2 | 1 | 5 |
| Total | 3 | 7 | 1 | 9 | 2 | 22 |

* O.C./Rentier: Owner-Cultivator/Rentier

From Table 3.2 it can be concluded that rentiers give primacy of importance to efficiency in selecting their tenants. They are also aware of the Law of Adverse Possession[28] but it is not the sole criterion which influences them to change their tenants more often. Ofcourse the objective of the landlord is to maximize his output at a given cost. Other things remaining constant the rentiers have to choose an efficient labourer who can maximize the output. It is an accepted fact that some tenants are more efficient in comparison to others. It might be due to their skill, experience, punctuality, possession of draught animals, family labour etc. In a competitive market where efficiency is given more importance by the landlords,

[28] Adverse possession means a hostile possession which is expressed or implied in denial of the title of the true owner. Such possession must be actual and exclusive, under a claim of right, adequate in continuity, in publicity and in extent, so as to show that it is adverse to the true owner.....Mere possession, however long continued, does not necessarily mean that it is adverse to the true owner....In adverse possession, the true owner is excluded by the adverse possessor, who, denying the title of the former, excludes him from the enjoyment of the same.

Title by adverse possession becomes complete only, when the possession of the adverse possessor continues uninterruptedly for the full statutory period. Thus in the following cases a full statutory period of 12 years of adverse possession was found to have been completed and it was held that the persons in adverse possession had perfected their title. (Krishnaswami: (1983)

the tenants try to utilize their non- marketable family labour and putting more effort to prove their efficiency. This will enable them to lease in land in the next year. It also serves the purpose of both the parties. From the tenants' point of view, they can utilize fully the non-marketable resources which can reduce the cost of production. This also increases the gross output and hence, the absolute share of tenants as share cropping is wide spread in the village. Increase in output also increases rentiers' income in absolute terms.

However, despite their efficiency they may not get the same land continuously for more than three years. The rentiers assert that now the economic conditions of the tenants are on the path of improvement and they are also aware of Law of Adverse Possession. As a result, they can move to the court of law to get the proprietary rights for the land on which they were having tenants continuously for a number of years. This is because the Tenancy laws usually confer the ownership right to the actual tiller of lease-in land after he cultivates for a specified period of time. To avoid a possible transfer of proprietary rights on land they prefer to change tenants more often.

In this direction it can be said that Bhaduri's(1973) argument no longer holds good because his theory is based on the assumptions that the landlords do not adopt new technology as their aim is to put the tenant in debt traps and the tenants are not allowed to choose the landlords. This assumption does not hold good because of the fear of Adverse Possession which compel the rentiers to change their tenants more often and hence, the tenants are free to

choose the landlord. Further, the type of crop to be produced is decided by the tenant only and hence, they are no longer in the debt trap.

### 3.2.2 Terms, conditions and preferences:

Under certain conditions the landlords may prefer to lease-out land to small tenants and not to landless and big tenants. This is because lack of other sources of income force the small tenants to put more effort (using family labour) on leased-in land to augment the output, which results in a rise in absolute share of the landowner. The landlords do not prefer the landless agricultural labourer and big tenants as the former do not have enough resources and the latter may neglect cultivation (Das, 1976).

A comparative study of patterns of land lease by various categories of households reveals that landless tenants are more preferred than other categories. This is evident from Table 3.3.

Table 3.3: Details of Land lease (Area: Acres)

| Category | Landless Tenants | Owner Tenants | Owner Cultivator |
|---|---|---|---|
| No of H.Hs | 12 | 8 | 13 |
| Land owned | 0 | 24.6 | 35.41 |
| Land Leased in | 77 | 23 | 0 |
| Land leased Out | 0 | 0 | 0 |
| Operated area | 77 | 47.6 | 35.41 |
| Av.land leased | 6.42 | 2.88 | 0 |
| Av.operated area | 6.42 | 5.95 | 2.72 |

The average land leased in by landless categories (6.42 acres) is more than twice the land leased in by owner tenants(2.88). Moreover, the average operated area by the landless categories is higher than the owner tenants and owner cultivator. A comparative

analysis of average land leased in by different groups of households demonstrates that the landless tenants are preferred by the rentiers. This is in consideration of **efficiency and personal relation.** The rentiers argue that the landless tenants are more efficient than other categories; they have been observing it for a long time. Here we are relating efficiency with the quantity of output produced, skill and experience.[29] As mentioned earlier, the aim of the rational landlord is to maximize his rent (Fixed and Share cropping). Hence, obviously he would lease out to the highest bidder or the person who proved his efficiency by raising the gross output. As referred earlier, it could be due to presence of family labour, skill and experience which help them to harvest more with low cost.

Moreover, the landless tenants who were formerly agricultural labourers (working in the same field for a long period), have experience about the level and grade of land, the type of seeds to be used, the time of cultivation etc. This reduces the supervision cost to some extent which the rentiers would face due to scarcity of manpower to look after the process of cultivation. Thus, it follows that the landless tenants are preferred to others.

Besides efficiency and experience, personal relation does play a significant role in this direction. It is more often observed that some tenants used to take a part of the total produce from the field without informing the rentier; thus reducing the share that is due to the letter. To avoid such problems the rentiers would

[29] Before the emergence of new agrarian relations the landlords used to employ only the efficient labourer.

prefer to lease out only to the trustworthy tenants. The landless agricultural labourers who have been working on the same field and proved their honesty are preferred by the landowners.

Infact, Das (1976) highlighted lack of resources as the major constraint which restricts the landless tenants' participation in the land lease market. However, in the present scenario lack of resources will not be a constraint for a long time. This can be explained by taking into account two points. First, wide spread prevalence of share-cropping motivates the tenants to maximise the gross output. The major expenditures among the variable costs, besides the wage payment is one on fertilizer and on pesticides which are shared 50:50 by the landlord and the tenant. Therefore, lack of resource does not necessarily become a constraint for the landless tenants. Secondly, wide spread prevalence of share cropping with the increase in operational holding of the landless tenants leads to a rise in income over time.[30] Moreover, there are some rentiers who initially provide the poor landless tenants' seeds, plough etc. which they can acquire after a few years.

Ofcourse, the landless tenants face the problem of buying a pair of bullocks as the rising trend of price of bullocks compel the tenants to borrow at an exorbitant rate of interest. Sometimes the expenditure shoot up if the farmers are forced to sell at very low

[30] It also improves the economic condition of the tenants as they try to reduce the cost of production by employing family labour and increase the output by putting more efforts.

price due to its inability.[31] To reduce the expenditure on bullocks generally two farmers exchange their bullocks in alternate days as there is no market for bullocks. Hence, lack of resources is not a major constraint for landless tenants in an unirrigated area. That too the rentiers overcome all the problems faced by the farmer if he is efficient, sincere and honest.

Secondly, Das (1976) argued that the land owners prefer to lease-out small piece of land to a large number of tenants as it increases their social status and helps to get free labour service from tenants. Infact our survey results contradict this for the following reasons. It is true that landlords prefer to lease out small piece of land to a large number of tenants to increase their amount of share. But it does not mean lands are fragmented into very small pieces as it will reduce the total output. Currently, the big landlords prefer to distribute their land between two/three groups of tenants depending on the location of land rather to lease out to a large number of tenants. The logic behind it is that former reduces the work load of the rentier largely as they are not supposed to collect paddy from a number of fields at a particular time. Further, leasing land in small pieces may not necessarily encourage each tenant to work more as the gross output is not very high. It will also be shared by two parties. Infact, before deciding the extent of land to be leased out, ability of the group is considered, i.e., the maximum land that can be cultivated by the

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[31] The farmers more often sell their bullock (s) at a low price if it is not fit for cultivation due to its ill health, disease and laziness. As the market price differs widely across space and time and spending more time in the Kharif season has an adverse effect on agricultural production, so, they prefer to sell it even at a low price.

group is assessed, and accordingly it is leased out. Taking into account the issue of free labour it can be asserted that households require free labour mainly for agricultural operations. Currently, the decision taken by the land owners to stop cultivation reduced their requirement for free labour considerably. Ofcourse, sometimes they may require for some other activities but they are paid either in kind or cash as the prevailing wage rate is Rs.35 per day.

### 3.2.3 Types of Lease:

The type of lease depends on several socio-economic factors and it varies over time and space. The factors are natural conditions for production, prevailing technology, development of markets, distributional pattern of land and assets, development of human capital, development of agriculture vis-a-vis other sectors of the economy and the crop produced.

In a changing agrarian scenario it is observed that share-cropping is widely prevalent in the village and it has replaced fixed tenancy which was prevalent for a long period.

From Table 3.4 it can be inferred that Share-cropping is the major form of land tenure prevalent in the village and it clusters around a simple formula of 50:50. Out of the twenty households considered from both the categories of tenants and owner-tenants, seventeen had share-cropping on the basis of 50:50 and three 43.75:56.25.

Table 3.4: Types of lease

| Nature of contract | No of Households |
|---|---|
| Share Cropping (50:50) | 17 |
| Fixed Rent | 0 |
| Any other (43.75:56.25) | 3 |
| Total | 20 |

However, Das (1976) argued that initial resource position, adoption of new technology and agro-economic conditions determine the lease conditions. For instance, the small tenants are exploited more than that of big tenants as the latter have relatively favourable bargaining power. The adoption of HYV seeds changed the type of lease from crop-sharing to fixed rent and kept the exploitative power of the landlord intact. Infact, no such thing is observed in our survey area. First, there is wide spread prevalence of share cropping[32] which is evident from Table 3.4. Secondly, the terms and conditions of land lease do not fluctuate among various categories. However, as referred to, in our survey it is observed that some rentiers prefer to accept less (43.75 per cent of the total produce) as by giving more incentive to the tenants the output can be maximized. As a result, the quantity of output might be equal to what the rentier would get in the share tenancy of 50:50. Since the share is 50:50 the tenant does not get any incentive and therefore, he may not take more initiative to produce the maximum output by employing family labour. Further, there are some landlords who are unable to collect their share from the land due to lack of family labour and face the scarcity of labourers at a particular time, and prefer to have their share to be

[32] According to Easwaran & Kotwal "Share cropping is viewed as a partnership in which each partner provides the unmarketed factor input in which he is better endowed."

43.75:56.25. In this case the tenant has to bring the whole produce to the landlords' field where it can be divided into shares. This also reduces the risk of the landlord to some extent. If the output is divided in the field then both the parties have to look at the produce as there is fair chance of losing a part or whole produce in the mid night. Infact, in case of latter only the tenant has to watch because his share is more than the rentiers share. This happens as the straws need to be left in the land (far away from home) for a few days to get dried up. Sometimes both the parties suspect each other and the tenant may not get the land during the next year even if he is an efficient farmer.

Nevertheless, there is not an individual who prefers fixed sharing. As mentioned, before the emergence of new agrarian relations some tenants preferred to stick to fixed rent rather than share cropping depending on the grade of land, distance from the house etc. Moreover, individuals hesitate to stick to fixed tenancy when they are supposed to lease large extent of land. Because it is an accepted fact that return from fixed tenancy, that is rent of the landlord is much lower than that of share cropping.[33] An explanation for the prevalence of share cropping is necessary.

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[33] Easwaran and Kotwal(1985) argued that yields on farms cultivated under share cropping are sometimes found to be higher than on farms alternatively cultivated, despite the moral hazard inherent in the non co-operative nature of the share contract.

### 3.3.1 Share Cropping: An Alternative Explanation:

In an agrarian economy the landlords and labourers/tenants may enter into different types of contracts: wage labour, fixed rent or share-tenancy, to ensure production. It is because of differences in risk adverseness/neutrality by various landlords and labourers which leads to the emergence of a number of contracts in a given economy at any given time. All these contracts are subject to different constraints depending on the levels of risk and (Stiglitz,1974, Newbery, 1977 Newbery and Stiglitz, 1979) ability[34] (Allen, 1985) of liability (Shetty 1988, Basu 1992) monitoring or supervision costs (Bardhan,1980) and hence, are in different points of the efficiency frontier. It follows that output under different contracts may differ. On the other hand, Cheung (1969) argues that effort, and therefore output, under various contracts will remain the same.

However, in a changing agrarian scenario which is reflected by a shift from owner cultivation to tenant cultivation, the issue of wage contract generally assumes less importance.[35] Thus, other things remaining constant, the alternative open for the land lord and the labourer is to prefer tenancy. The leasing out land is determined by various factors such as alternative employment opportunities and hence the opportunity cost of the agents and

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[34] This may be constrained by caste structure.

[35] In an underdeveloped agrarian economy where the cost of production especially real wage is increasing, as observed in the study region (Chapter 2 and further elaborated in Chapter 5), the landlords would prefer other contracts (share tenancy or fixed rent). Then again there is the question of transaction costs and/or supervision costs.

their family members, the location of land, the extent of development of market etc. Further, the landowner would prefer tenancy (share or fixed) because under tenancy the tenants generally employ family labour which not only reduces the cost of production but also increases the gross output[36] and hence, the (share) amount of rentiers.

On the other hand, those labour households with greater liability as well as ability would prefer tenancy, as this would assure them a higher income, given the uncertain nature of labour market. Furthermore, tenancy utilises the non-marketable family labour which reduces the cost of production to a great extent as 60 per cent of the total paid out cost is wage payment (Chapter 4). And this is almost zero for a number of tenants. Increase in effort also increases the output and hence income of the tenant households. Thus, it follows that other things remaining constant the tenants with greater ability and liability would prefer fixed rent tenancy.

However, in an underdeveloped economy where markets have not developed (see Chapter 4,Section) and production is dependent on the vagaries of nature it may not be rational on the part of the tenant to enter into fixed rent tenancy.

From a long run point of view it is also beneficial for the rentiers to prefer share cropping as the gross output (and hence, its share amount) subject to credit constraint, will be more under

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[36] The output will increase under tenancy due to the reduction in shrike and employment of family labour.

such an arrangement. The output differs under different tenancy systems depending on the period of contract. Other things except the amount of fertiliser used remaining constant, the gross output per acre of land may be maximum under fixed rent if the contract is for a short period, say one/two year(s) whereas it will be maximum (in quantity) under share cropping in the long run.[37]

To examine the logic behind it, the following argument can be taken into consideration. In case of fixed rent the aim of the tenant is to maximise profit subject to the constraint, rent. The rent primarily depends on the ability to pay, personal relation with the landlord and the bargaining power of the tenants. Although it differs across space and time depending on the fertility of the soil, drainage system, distance from the house and price of factors of production, we are, however, assuming it to be more or less fixed in a particular region (in a village).

Thus, to maximise profit the tenant has to increase production of output which is mainly determined by the agro-climatic conditions and the use of bio-technology. As mentioned earlier, in an unirrigated village use of HYV seeds and rotation of crops is generally ruled out. Moreover, high risk coupled with wide fluctuations in output does not necessarily encourage the farmers to use HYV seeds rather than to rely on the traditional/improved variety of seeds. Assuming price of paddy to be more or less constant (as observed during the period of survey) maximisation of production (gross output) subject to credit constraint depends on

[37] The output will be more or less same under fixed tenancy if use of fertiliser increases over the time.

the use of amount of fertiliser. Though, it increases the cost of production to some extent (as farmers spend for both fertiliser and pesticide) yet operation of increasing returns to scale influences them to use more of it.

Second, use of fertiliser also prevents a decline in output considerably when the economy is affected by natural calamities, especially in an unirrigated village. This also motivates the tenant to use more fertiliser under fixed rent.

Further, unlike sharecropping, in case of fixed tenancy the rent has to be paid in cash advance (before six months). Hence, to pay the rent small/marginal tenants might have to borrow from the money lender at an exorbitant rate of interest (Chapter 5)[38]. This indirectly motivates them to maximise production.[39] The development of credit market may not lead to a decline in dependence on informal credit institutions in an unirrigated monocrop area. This is because the loans granted by the Commercial Banks and Co-operative society are crop and time specific. Thus, in an unirrigated monocrop area, generally the loans are not

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[38] It is observed in the survey area that dependence on formal credit institution is very low, especially for the small and marginal farmers. It is primarily due to the rise in transaction cost coupled with political clout and low probability of getting loan from organised credit institutions.

[39] The maximisation of production is also the aim of the tenant under share tenancy but payment of cash in advance under fixed tenancy compels them to produce the maximum. For instance, a tenant may not take into account the free labour services provided by it considers payment of cash as a burden for him.

granted for crops other than kharif paddy,[40] which the tenant could have used for rent. Moreover, a part of the loan is given in cash and the remaining in kind (say, fertiliser and pesticides). Thus, it compels them to maximise production to repay the loan.

Contrary to the above view, the gross output under sharecropping may not be as high (in the short run) as it would be in the long run. Also, if we compare the gross output under fixed tenancy with sharecropping in a short run (one/two year(s)) then the output can be higher under fixed tenancy. Here we are assuming prevalence of 50:50 share and the rentiers' share as a part of the variable cost (say fertiliser cost).

Under share tenancy the rentiers' aim is to maximise the amount of output in kind subject to the cost constraint. This indirectly implies that efficiency[41] is the sole criterion which is given prime importance by the rentiers. Thus it follows that more efficient tenant farmers are preferred by the rentiers. The level of output also depends on the use of family labour, draught animals.

However, if the period of contract is for one/two year(s) then the tenant may not be interested in investing in land to get return over the long run which is similar to that of fixed tenancy. On the other hand, if the landlord leases-out a particular piece of land continuously for few years then it can motivate the tenant to

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[40] In the survey area it is observed that no other crop except paddy is produced.

[41] Here efficiency is measured by the maximisation of gross output with same or low cost.

take care of the land especially to construct a permanent boundary, levelling the soil, use more manure etc., which reduces the expenditure over the years and increases the fertility of the soil.[42]

Secondly, both rentier and tenant participate in the cultivation process and hence, both would together decide the input to be used and the crop to be raised on the piece of land. This allocates the resources efficiently and hence, it has a positive impact on the gross output.

The deterioration of land in a long run does not arise under share cropping unlike in fixed tenancy. This is so as under fixed tenancy use of more and more fertiliser deteriorates the fertility of the soil and hence, it requires an increasing dosage of it to maintain the level of output more or less same over the period of

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[42] Use of manure increases the fertility of the soil at zero or very low cost as there is no market for manure and the landowners provides manure free of cost. This utilises the non-marketable manure and reduces the expenditure incurred by both the parties as absence of it would lead to purchase of more amount of fertiliser. However, use of manure sustain the fertility of the soil for a long period and it does not have bad effect on the land unlike that of fertiliser, more use of which declines the fertility of the soil.

Contrary to it, use of fertiliser has immediate impact on output,i.e., it can increase the output in a particular year and hence, more of it is used under fixed tenancy. Further, use of fertiliser lead will rise in expenditure on pesticides/ insecticides which generally does not arise in case of use of manure.

time. The fertility of the soil is also declined due to the negligence of the tenants to take care of the lands. Under fixed tenancy the tenant may not take care of land as the probability of leasing in the same plot of land is very low in the subsequent years. This is because it depends on the ability of the tenant who can pay the maximum rent. In other words, the highest bidder and the tenant who generally does not use more fertiliser are preferred by the tenant.[43]

Besides the rise in output over the long run, the rentiers are also dependent on the produce (paddy as well as straw) for their own consumption (including thatched house and cattle) which they get under share cropping rather than fixed tenancy. And it would be a prestige issue for the landowner to purchase paddy or straw from the market or from small/marginal farmers (particularly from the lower caste).

From the above argument it can be said that the landowners and tenants enter into 50:50 share tenancy to ensure cost sharing and risk sharing arrangements in an underdeveloped economy. This arrangement also ensures a judicious mix of investment given cost constraint of the agents to ensure a steady stream of output.

However, in our survey it is observed that risk sharing is not the principal motivation behind the prevalence of wide spread share-cropping but the maximization of rent over the long run is a major

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[43] However, the tenant may also take care of the land if he has interest in bidding for the land again in the following year or for fear of bad name among probable rentiers.

purpose for which they prefer share tenancy. Some of the land owners argue that under share tenancy the amount of their share (50 per cent of gross output) will be more or less equal to the output which they could produce under self cultivation. This motivates them to lease-out their land. Besides, in case of share-cropping cost of recruitment and supervision is zero while the landlord has to bear it if he has to cultivate by hired labour (Bardhan, 1980).

Conclusion:

The emergence of agrarian relations in mid eighties has led to the evolution of land lease market. Most of the theories relating to the patterns of land lease maintained that the tenants are vulnerable vis-a-vis the landlords (see Bhaduri, 1973) as the former determines the terms and condition. But our survey results do not go along with this argument as the tenants are free to choose the landlords and the latter change tenants more often to avoid the Law of Adverse Possession. Further, share cropping is wide spread in the survey area and the share of landlord does not alter even if the tenants use HYV seeds. Infact, the landlords gives prime importance to efficiency followed by personal relation and trustworthiness of the tenants while leasing out land. The most interesting feature which emerged is the direct relationship between efficiency of farmers and operational holding which indirectly depends on extent of land leased. Caste is no longer a barrier in this direction as the rentiers prefer to lease out lands to farmers belonging to the Schedule Caste Community.

On the prevalence of wide spread share cropping, it is observed that maximisation of output over the long run is the principal

factor which motivates the rentiers to prefer it to fixed tenancy. The risk sharing, reduction of supervision cost and monitoring cost are also taken into account in this direction.

However, functioning of land market alone can not fully capture the logic behind a change in agrarian relations. There is a need to consider the role of other markets in this direction. In the following chapter we will discuss the functioning of labour, credit and output markets to examine their roles in a changing agrarian scenario and especially to identify whether they get interlocked.

# Chapter 4

# Labour, Credit and Output Market

## Introduction:

This chapter addresses itself to the functioning of labour, credit and output markets in a backward agrarian economy. Section 1 deals with the functioning of labour market especially the months of employment of various categories of households in the economy. Further, outmigration in the off season, income and saving earned by various groups of households are examined in this section. Functioning of credit market is analyzed in Section 2. In this section we are trying to explore the extent of Government intervention, time of getting the loan, the duration, and the time of repayment. Further, access to loan by different categories of households is investigated. Section 3 is mainly devoted to an analysis of the role of output market in changing the agrarian relations.

## Section 1

### 4.1.1 Labour Market:

In this section we try to explore the labour market arrangements and analyse whether there is any linkage between this and the credit and output markets. Besides, the linkages between caste status the type of labour performed will also be examined.

In a labour abundant land scarce rural economy the employment of rural households primarily depend on the landowners who generally fix the wage rate. Here we are assuming absence of non-farm employment opportunities and unionisation of rural labourer.

The income earned by the households depend on the days of employment in a year, which can be divided into months (days) of employment in the village and employment in the non-farm activities during the off season migration. The days of employment of rural households during a year are not quite impressive. This is evident from Table 4.1.

Table 4.1: Average Months of Employment

| Months | Households |
|---|---|
| 1 - 2 | 4 (9.30) |
| 2 - 3 | 10 (23.25) |
| 3 - 4 | 8 (18.60) |
| 4 - 5 | 4 (9.30) |
| 5 - 6 | 2 (4.65) |
| 6 - 7 | 7 (16.27) |
| 7 - 8 | 5 (11.62) |
| 8 - 12 | 3 (6.97) |
| Total | 43 (100.00) |

Note: Months of employment represents average months of employment of members of each household (above the age of 15) in a year.

Table 4.1 gives information on months of employment in the unirrigated village. It is clear that around 60 per cent of the households got employment for less than five months while only 7 per cent were employed for 8 to 12 months in a year. The remaining 33 per cent got employment for five to eight months. A wide spread use of short duration crop (improved variety paddy) has reduced the days of employment in the village and hence, increased the days of outmigration considerably.

A comparative analysis of employment of various categories shows that months of employment as a whole in a year is maximum for Landless tenants and minimum for owner-rentier.

Table 4.2: Days of Employment (1993-94)

| Category | Employment in the Village | Employment outside (Migration) | Employment in a year |
|---|---|---|---|
| L. Tenants | 86 | 110 | 195 |
| O.Tenants | 84 | 140 | 135 |
| O.Cult. | 158 | 240* | 158 |
| L.Agl.lab | 105 | 150 | 161 |
| O.Cult/Rent | 102 | 90** | 120 |

Note: Employment in the village and employment in outside can not be added to calculate the days of employment in a year.

* Out of 13 H.Hs.from the owner cultivator group, only three have outmigrated for 8 months.

** Out of five households only an individual outmigrated.

However, a comparative study of the days of employment of households in the village suggests that it is highest for owner cultivator followed by landless agricultural labourer. The landless-tenants and owner-tenants are employed for almost three months.

Considering the days of outmigration, it can be inferred that on average, the owner-cultivators outmigrate for the maximum period of time, followed by landless agricultural labourers, owner- tenants and tenants. Here, we are not giving more emphasis on the outmigration of owner cultivator group and owner-rentier group. This is because out of 13 households considered from owner-cultivator group only 3 individuals from three households outmigrated for 8 months. Strictly speaking it cannot be considered as off-season migration rather it is a permanent employment in search of non-farm activities. The logic behind this is that lack of employment opportunities in the village compel them to outmigrate. Similarly, from the owner-rentier group only one individual outmigrated.

The days of outmigration is primarily influenced by the days of employment in the village as there exists an inverse relationship between these two variables. Again, the employment in the village is determined by the operational holdings of the households. Although the operational holding of landless tenants is higher than owner cultivator (See Table 3.3, Chapter 3) the days of employment of landless tenants are lower than those of owner cultivators. To explain the rationale behind it, there is need to consider the employment of family labour and efficiency of these households which can reduce the days of employment (see Chapter 5, Section 3).

In brief, it can be stated that all the categories secured employment for about four/five months whereas landless tenants were employed for more than six months in a year. This can be attributed to an increase in operational holding and increase in outmigrants from this group. Although the number of days of outmigration for other categories is much higher than the landless tenants group, the number of households who migrated from this category is higher (11 households outmigrated out of 12 sample) than the other categories (See Table No.3.3).[44]

This explains that despite the increase in days of outmigration, days of employment as a whole in a year is very less for other categories. On the contrary, the days of employment in the village for owner cultivator group is higher than other categories. This

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[44]. As almost every one (11 out of 12) outmigrated from the landless tenants groups, the average days of employment in a year for the category as a whole is higher in comparison to other categories. On the other hand, the number of days of outmigration is very high for other categories, but the number of households outmigrated is very less and hence, the average days of employment is not very high for these categories.

is primarily due to involvement of these households in some other part time work.

### 4.1.2 Off Season Migration:

Absence of assured water indirectly compels the farmers to seek employment during the off season. This is so as it ruled out the option of involving in the farming activities during Rabi-Season. Besides, as mentioned, lack of other employment opportunities in the village compel them to outmigrate in the off-season. The peasant outmigration to various industries is not only determined by their ability, skill etc. but also to some extent by their caste. Infact, a comparison of intensity of migration among different categories reflect wide spread variation with respect to the individuals migrated and type of work performed.[45] This is evident from Table 4.3.

Table 4.3: Details of Outmigration

| Category | Number of sample HH | Households O.Migrated | Brahmins | Scheduled Castes | Others |
|---|---|---|---|---|---|
| L.Tenants | 12 | 11 | 0 | 5 (5) | 6 (7) |
| O.Tenants | 8 | 6 | 1 (2) | 3 (4) | 2 (2) |
| O.cultiv | 13 | 3 | 0 (4) | 0 (2) | 3 (7) |
| L.Agl.Lab | 5 | 3* | 0 | 0 | 3 (5) |
| O.Cult/Rent | 5 | 1 | 0 (4) | 0 | 1 (1) |
| Total | 43 | 24 | 1 (10) | 8 (11) | 15 (22) |

Note: Figures in the parentheses represent the number of households under that particular caste in that category.
* Two people did not migrate due to their physical inability.

[45] Other things remaining constant the type of work performed is related to the caste.

Around 90 per cent of total households have migrated from landless categories while it is 23 per cent for owner cultivators and 20 per cent for owner-rentiers. Further, from Table 4.3 it can be inferred that migration is more common among Schedule Castes (15 out of 22 households) than among Brahmins (one out of 10 households). This is primarily due to caste barrier. As mentioned earlier, an individual from Brahmin community does not want to work in a brick making industry unless he is forced to do so. Similarly, persons from a Schedule Caste household generally can not be a cook due to problems of ritual purity.

Further, a comparative analysis of the number of family members who migrated from various categories suggest that on average it is more than two from landless tenant groups followed by owner tenants, while it is only one for owner cultivators, owner-rentiers and landless agricultural groups (Table 4.4). The low percentage of migrant population can be explained by considering the availability of other part time employment opportunities coupled with fewer number of working population in these categories.

Table 4.4: Number of Migrants Across Categories

| | Days of O.migration (On Avg.) | H.Hs migrated | F.member migrated | M.Members (on average) | Avg.Ear. (each HHs) |
|---|---|---|---|---|---|
| Category | | | | | |
| Tenants | 115 | 11 | 25 | 2.27 | 8484 |
| O.Tenants | 140 | 6 | 10 | 1.66 | 12850 |
| O.cult. | 240 | 3 | 3 | 1 | 7466 |
| L.Agl.Lab | 150 | 3 | 3 | 1 | 5466 |
| O.Cult/Rent | 90 | 1 | 1 | 1 | 2100 |

Note: F.members:Family members, M.Members: Migrant members L.Agl.Lab:Landless Agricultural labourer, O.Tenants:Owner Tenants, O.Cult.:Owner cultivator

Further, the average income earned by various categories suggests that households belonging to owner tenant groups earns the maximum amount while it is least for the landless agricultural group. Though the days of migration of owner cultivator group is more than twice that of landless tenants, the average earning of the latter is higher than the former over the whole period.[46]

Thus, it follows that except the days of migration other factors such as number of working days, skill, number of households and migrants from each family and the work performed. However, saving rate of households also varies to some extent across categories which is evident from Table 4.5.

Table 4.5: Income and Saving from migration per head

(in rupees)

| Category | Days of out migration | Average Earning | Net Saving | Saving as a percentage of Net Earning |
|---|---|---|---|---|
| L.Tenants | 115 | 3733.16 | 2274.00 | 60.91 |
| O.Tenants | 140 | 7710 | 6350.00 | 82.36 |
| | (120) | (4122) | (3166) | (76.82) |
| O.Cult. | 240 | 7466.66 | 4666.67 | 62.50 |
| L.Ag.lab | 150 | 5466.66 | 3566.67 | 65.24 |
| O.Cult/Rent | 90 | 2100 | 1200 | 57.1 |

Note: Figures in the parenthesis excludes one individual from the owner-tenant category who is considered as an outlier.

* Average Earning/ Net Saving of Individuals in the group during the whole period.

From Table 4.5 it is clear that average earnings of owner-tenants and owner-cultivators are more than twice the income earned by

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[46]. For instance, an individual who takes contract to provide food for a ceremony gets more profit than others. Even earnings of individuals working in brick making industry differ to a great extent depending on their efficiency, capacity to work more etc.

landless tenants. However, around 60 per cent of the income earned is saved by all the categories of households except owner-tenants. Infact, all these discussions reflect only income from migration and there is a need to compare and contrast it with the income earned in the village.

Table 4.6: Income from Migration vis-a-vis Annual Income (in rupees)

| Category | Gross Income | Income From Migration | Migrants Income as percent of Gross Income |
|---|---|---|---|
| L. Tenant | 153580 | 93329 | 60.769 |
| O. Tenants | 154881 | 77100 | 49.78 |
| | (90881) | (37100) | (40.82)* |
| O.Cult. | 163500 | 22400 | 13.70 |
| L. Agl.Lab. | 23150 | 16400 | 70.84 |
| O.Cult/Rent. | 5850 | 2100 | 36 |
| Total | 500961.5 | 211329 | 42.18 |

Note: M.Income: Income from Migration, G.Income: Gross Income
* Excluding one household who earned Rs.40000 in eight months of outmigration

From Table 4.6 it can be inferred that for all the categories as a whole, around 42 per cent of annual income comes from off- season migration only. A comparative study of income earned from migration by various categories suggests that landless tenants have earned the maximum amount, that is, more than five times the earnings of landless agricultural labourers. In contrast, the percentage of income earned from migration to total income shows that it is maximum for agricultural labourers, that is, more than five times the income earned by owner cultivators.

Considering the low percentage of income earned from migration by the households belonging to owner cultivators it can be asserted

that some of them have other source of income and hence, income from migration alone can not solely determine their total income.

To analyse the variation in income earned by various groups several factors such as rain fall, days of migration, type of work, number of migrants from each category are considered. First, the amount of income earned depends on the days of outmigration which is inversely related to rain fall as excess rain fall compel the brick-kiln owners to stop production of bricks.[47] Secondly, considering the days of outmigration, apparently owner-rentiers migrated the least number of days (90) and owner cultivators migrated the maximum number of days (240). This is evident from Table 4.5. But the number of days of migration alone does not determine the income earned from migration. It is also related to the type of work done and the number of migrants from various groups.

Third, the average number of migrants is more than two in case of Landless tenants while it is one for landless agricultural labourers, owner cultivators and owner-rentiers. It can be explained by considering the average number of adult male in different categories. The number of adult male is higher in landless tenant categories in comparison to other categories. Moreover, low literacy rate coupled with absence of other employment opportunities force them to outimgrate.

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[47]. In this case we are giving emphasis on Brick making industry only although there are very few households outmigrated to do some other works.

Fourth, the income earned depends on the type of work done, which is also related to their caste. The former (landless tenants) earns more despite the fact that the days of employment is more incase of latter (owner-cultivator) as earning is related to the type of work done. The households from owner cultivator group did not migrate to Brick making industry unlike the Landless tenants.

However, the income earned from migration as a whole, is least for owner-rentiers followed by agricultural labourers, still it is very high for agricultural labourers (around 70 per cent) if we compare their gross income with the income earned from migration. This reflects days of employment in the village is very low as they earned 30 per cent of their total income from agricultural activities. This is shown in Table 4.2. Even the prevailing wage rate is lower than that of non-farm employment and hence, the income earned in the village is very low. Besides, payment of wage in the non-farm activities is in piece rate which motivates them to work hard and earn a lot. Lack of other source of income except wage earning also reduced their total income considerably and hence, it increased the share from outmigration.

However, to analyse the role of earnings (from outmigration) in the changing agrarian scenario, there is a need to consider the expenditure patterns of households.

Table 4.7: Purpose-wise Expenditure of Migrants Income

| Category | H.M. | Expenditure | | | |
|---|---|---|---|---|---|
| | | Cons. | Agr/cons | Repay Loan | House Repair |
| Tenant | 11 | - | 10 | 4 | 7 |
| O.Tenant | 6 | - | 5 | 2 | 2 |
| O.Culti | 3 | - | 3 | - | - |
| Agl.lab | 3 | 3 | - | 1 | - |
| O.Rentier | 1 | - | 1 | 1 | - |

Note: Cons.: Consumption, Agr/cons: Expenditure on agriculture and consumption, H.M: Households migrated

It is difficult to isolate consumption expenditure (except for agricultural labourers who do not cultivate land) from expenditure on agricultural operations even though a lion share is spent on agricultural operations. Table 4.7 represents the patterns of expenditure which can be decomposed into four parts: consumption expenditure, expenditure on both consumption and agricultural operations, expenditure for repayment of loans and house repair. From the expenditure patterns it is evident that a majority of them spend for consumption and agricultural operations. For instance, out of 11 households outmigrated, 10 of them spend for both on consumption and agriculture. And a part of it is spent is spent for repayment of loans (4 H.Hs) and house repair (7 H.Hs) by few households.[48]

As mentioned earlier, around 42 per cent of the gross income for all the categories comes from migration. The owner-tenants and owner-cultivators spend around 100 per cent for agricultural

[48]. One household in the tenant category had spent his income only for repayment of loans. However, households used to spend a major proportion of it for agricultural operations and the remaining for repayment of loans and house repair. It is difficult to calculate the number of households who spend only for a particular purpose and hence, it is not additive.

operations and consumption (See Table 4.8). However, it is less for owner-rentiers.[49] For the tenant categories, around 28 per cent spend for repayment of loans, out of which 11 per cent borrowed for the purpose of cultivation and the remaining to meet the expenditure incurred in ceremonies (especially marriage ceremonies).[50]

Table 4.8: Amount of Expenditure of Migrants Income for various Purposes

| Category | Net Sav. | Expenditure | | | | |
|---|---|---|---|---|---|---|
| | | Cons. | Agl& Cons. | Repay Loan Cult. | Repay Loan Cer. | House Repair |
| Tenant | 56850 (100) | - | 37300 (65.61) | 6000 (10.55) | 10000 (17.59) | 3550 (6.24) |
| O.Tenant | 63500 (100) | - | 61000 (96.06) | 1300 (2.05) | - | 1200 (1.89) |
| O.Culti | 14000 (100) | - | 14000 (100) | - | - | - |
| Agl.lab | 10700 (100) | 9400 (87.85) | - | - | - | 1300 (12.15) |
| O.Rentier | 1200 (100) | - | 200 (16.5) | 1000 (84.5) | - | - |

Note: Cult: Cultivation

Assuming the tenants might have borrowed more or less the same amount of loans in the current year to meet the cultivation expenses, then around 75 per cent of migration income is spend on cultivation. This indicates that income earned from migration acts as a cushioning to lease-in land by the tenants and owner-tenants. In the next section we will look into the functioning of credit market and its role in changing agrarian scenario.

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[49] One individual from owner-tenant category who migrated can be considered as an outlier.

[50] Generally the farmers borrow loan for cultivation purpose and for celebrating ceremonies/festivals.

### 4.2.1 Credit Market:

Credit plays a vital role in the production of output and development of agrarian economy. Diverse views have been put forth by different schools of thought regarding the exploitation of farmers by the landlords through the interlinking of credit market with other markets. In Bhaduri's (1973) model of semi-feudalism it was the landlord who was also the money lender. Subsequently a number of authors have also tried to explain factors underlying the exceptionally high rates interest prevalent in many backward agrarian economies. In an unorganised credit market the money lender has the monopoly power as the peasants have no access to formal credit market. The collateral offered by the borrower is unacceptable in the organised credit market and hence they have to borrow from the money lender even at a very high interest rate. However, in case of default the borrower can get back the collateral due to the personal relationship with the money lender. In brief, Bhaduri argues that only the defaulted principal can be recovered through the transfer of collateral.

In contrast to this, Gangopadhyay and Sengupta (1987) argue that with so much monopoly power over the borrower the lender would recover both the defaulted principal and defaulted rate of interest. Borooah (1980) also pointed out that the lender may reduce the interest rate and induce default by encouraging borrowers to take larger loans.

Sarap( 1987) tried to explore the extent of variation in access to credit by various groups of households in Western Orissa.

Considering the inter temporal variation in getting loan from various sources he argued that the poorer farm households mainly depend on the informal credit institutions whereas the medium and large farmers' participation in the formal credit institution is very high. Further, the latter obtained 50 per cent of the informal credit at a very low rate of interest with a significant amount of loan interest free.

In a subsequent article Sarap (1990) tried to investigate various methods of control operating in the rural credit market. Besides the interest rate and the amount of loan, the period of repayment and use of third party guarantors are also important.[51] Emphasising on the personalised control exercised by the lender which is more complex and diverse he argues that the money lender encourages default by stipulating a shorter period of credit contract. Moreover, the lender recovers both defaulted principal and defaulted interest.

Basu (1990) emphasising on the prevalence of high interest rate argued that it is essentially a compensation to the lender for the risk of default in markets where the hand of law is weak. But empirical studies revealed that it is not the only factor which determines the high rate of interest. Even the rate of interest varies from place to place.

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[51]. "The lender has a number of instruments of control besides the rate of interest (price of loan) and the amount of loan. Without changing the rate of interest he may stipulate a shorter repayment period in the loan contract which is preferred by the lender and agreed upon by the borrower if the demand for loan is extremely inelastic (e.g., loans for medical purposes) and when an alternative source is not available. In the event of failure to repay within short period the borrower lose the whole of his collateral" (Sarap; 1990, pp.93).

However, the micro level studies of Nagraj (1985) and Sarap (1991) revealed that the length of time and annual rate of interest is quite meaning less in rural context rather other factors like the time of borrowing and time of repayment does matter to a great extent. Considering the functioning of credit market in the present study in Table 4.9 it is observed that very few households borrowed loan during 1993-94.

Table 4.9: Purposes of Total Borrowing by Various Categories (1993-94)

| Category | Total Households | Households Borrowed | Amount | Purpose of Loan |
|---|---|---|---|---|
| Tenant | 12 | 2 | 5000 | Cultivation |
| O.Tenant | 8 | 4 | 8500 | Cultivation |
| O.Cultivator | 13 | 3 | 1050 | Cultivation |
| L.Agr.lab | 5 | 1 | 300 | Consumption |
| Total | 38 | 10 | 14850 | |

From Table 4.9 it can be inferred that out of 38 households taken into account only 10 received credit during 1993-94. Further, almost all of them borrowed for production purposes only.

A comparative analysis of access to credit reveals that the number of households in owner tenants category received more credit in absolute amount and it is least for owner cultivators. It is obvious that the amount of credit has a direct association with the operational holding of the households and the pattern of crop produced as the purpose of credit is to spend for cultivation purposes. Considering the operational holdings it can be asserted that it is highest for landless tenants (6.42) followed by owner tenants (5.95) and owner cultivators (2.72) (Refer Table 3.3, Chapter 3). Although the operational holding of landless tenants

are more than other categories the lack of access to formal credit institutions reduced their dependency on formal credit institutions. Further, lack of irrigation also prevents adoption of High Yielding Variety and hence expenditure on fertiliser and pesticide is minimum which would otherwise compel the farmers more often to borrow loan. This can be explained by considering patterns of land distribution which is skewed and absence of other source of income for owner cultivators, tenants and owner tenants.

However, to examine the rational behind low dependency on credit market several factor such as access to credit market, availability of credit in proper time, prevailing rate of interest, cropping pattern are considered. Here we are trying to analyse how effective has Govt. intervention been? And who are the beneficiaries of the credit disbursement by the formal sector? Do the rich and poor get it on equal terms? And who are the major defaulters?

Table 4.10: Total Amount Borrowed from Various Sources by different Categories (1993-94)

| Category | Sources of Borrowing | | |
|---|---|---|---|
| | Moneylender Landowner | Co-operative Society | Total |
| Tenant | 5000 | - | 5000 |
| O.Tenant | 6200 | 2300 | 8500 |
| O.Culti | 1050 | - | 1050 |
| L.Agr.lab | 300 | - | 300 |
| Total | 12550 (84.51) | 2300 (15.49) | 14850 (100) |

A comparison of different sources of credit reflects that around 85 percent of the total credit comes from informal sector and the

remaining amount has been borrowed from the organised sector. However, the commercial bank[52] did not lend money during 1993-94 due to the decision taken by it which can be primarily attributed to increase in defaulters over the years. They pointed out that the major defaulters are the landless tenants.

Nevertheless, our study gives more importance on the relationship between the persons' political clout and availability of credit from the organised credit institutions. The access to co-operative society is minimal for the small and marginal farmers. The small and marginal farmers say that access to loan depends on the relationship of the household with the local level politicians. Besides, the major complaint against the co-operative society is that it issues loans when cultivation is partly over and collect it at the time of harvest when price of paddy is very low. Although the Government of Orissa directed them to collect paddy rather than cash which would not affect the farmers but absence of storage facility compels the officials to collect the repayment more often in cash.

Though the interest charged by the money lenders and landowner are significantly higher than that of Co-operative society and Banks the farmers still prefer to borrow from the informal sector rather than rely on these sources (see Table 4.11). This is evident from the fact that only one of the 10 households borrowed from the Co-operative Society (see Table 4.9).

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[52]. Only commercial bank (United Commercial Bank) is available in the survey area.

Table 4.11: Source-wise Variation in Interest Rates

(in percentage)

| Source | With collateral | without collateral |
|---|---|---|
| Moneylender | 36 | 60 |
| Cooperative Society | 12.5* | - |
| Commercial Bank | 12.5* | - |
| Land owner | 36 | 60 |

* In the commercial Banks and co-operative society land records should be deposited for borrowing loans.

The major obstacle which prevents them is to get loan from the co-operative society and Banks due to rise in transaction costs, that is, the patience to wait for long time due to bureaucratic delay and probability of getting it is not very high. They do not face these problems if it is borrowed from the money lender/landowners. Ofcourse, in an unirrigated rain fed area, specially for the purpose of cultivation which need things to be done in the right time, compel the small and marginal farmers not to depend on Banks and co-operative society. In case of default the farmer has to render his property to the Govt. which indirectly force them to sell paddy at a very low price. Thus, it discourages the farmers to rely on formal credit institutions.

However, from our survey area it is observed that there are many defaulters who borrowed from Commercial Banks. To investigate the logic behind it mainly two factors can be taken into consideration. First, when they borrow from the banks there is no need to give collateral except the land records.[53]. Secondly, except the co-operative societies the Banks have not taken stringent action against the defaulters as pointed out by the

[53]. Here we are ruling out Land Development Bank.

farmers. Sometimes they do not get any property from some households. On the contrary, the landlord and money lenders generally do not lend money without taking a collateral. The interest charges also doubles if it is borrowed without collaterals. Further, they lend a fraction of the total value of the product. In case the borrower could not repay he had to lose the collaterals and he can not show his face to the money lender. Hence, they try their best to repay the loan. In brief, it can be said that the extent of default not only depends on their capacity to pay but also the loss which they would incur if they do not repay. However, recent trend shows a decline in dependency on credit market that is primarily due to the transition from owner-cultivation to tenant cultivation. The emergence of land market coupled with wide spread prevalence of share cropping improved the standard of living of the tenants and owner-tenants. As a result, they do not rely much on credit market. In the next section we will discuss the functioning of output market.

## Section 3

### 4.3.1 Output market:

The output market plays a significant role in a changing agrarian scenario. It influences the farmers to produce more, especially the commercialised output. Other things remaining constant the supply of output is an increasing function of price and hence, a rise in price would lead to an increase in production in the subsequent years. The Royal Commission on Agriculture has also emphasised on the role of agricultural marketing by pointing out that "unless the cultivator can be certain of securing adequate

value for the quality and purity of his produce the effort required for an improvement in these will not be forthcoming."

Infact, considering output market it is observed that the price of paddy is determined by the supply and demand of output in the rural market. An insignificant price difference in various markets does not necessarily influence the price of paddy in rural market and hence, the production of output. Besides, allowing for transportation cost and risk associated with selling of paddy in other markets, generally a farmer does not get enough profit which would motivate him to sell in other markets.

To analyse the movement of price of paddy during last few years it is pertinent to consider both supply and demand for paddy. From the Supply side, excess supply of paddy not matched by the excess demand does not push up the price of output. Though lack of irrigation ruled out the multiple cropping and hence only one crop is produced in the village. But availability of irrigation facilities in other areas increases the supply of output in the village during the Rabi season to some extent.

From the demand side, increase in land lease since 1987-88 onwards has reduced the aggregate demand of paddy in the market. Before the emergence of land market due to the skewed distribution of land, the mass of landless agricultural labourers had to demand paddy in the market. In contrast, a few landowners who acquired more land control the output market. As a result, the price of paddy has been going up. But currently, the area under tenancy is more than 90 per cent and hence, except marginal and small farmers others

generally do not demand for output in the market. This can be explained by considering wide spread prevalence of share cropping and off season migration of labourers. In other words, prevalence of share cropping has reduced the gross output of rentiers and increased the output of agricultural labourers (at present tenants). Moreover, migration of adult male for a few months necessarily reduces the demand for paddy in the market and hence, the price does not move upward. From the supply side also absence of oligopolistic market does not influence the price to move upward. Besides, there is a wide variation of average price received by various categories which is evident from Table 4.12.

Table 4.12: Price of Paddy (Rs/per quintal)

| Category | Price Received |
|---|---|
| L. Tenants | 225 |
| O.Tenant | 250 |
| O.Cultivator | 250 |
| Rentier | 300 |
| O.Rentier | 300 |

From Table 4.12 it can be inferred that except the rentier and owner rentiers others received less than Rs.300 per quintal. To explain the logic behind it there is need to consider the patterns of land distribution and number of individuals working in the service sector. From Tables 2.3 and 2.4 (chapter 2) it is apparent that distribution of land is skewed among the households and hence, the output is lower for small and marginal farmers. It restricts them not to wait till price reached the maximum. On the other hand, the rentiers and owner rentiers who are economically better off have also acquired more land and hence, accumulated enough surplus. Further, as mentioned in chapter 2, the number of

individuals working in the service sector is comparatively higher for rentier and owner-rentier groups. This reduces the consumption of paddy and thus, increase in surplus of output. Besides, households belonging to tenant, owner-tenant and owner-cultivator groups do not have any other source of income, especially in the kharif season. To meet day to day expenditure they have to sell a part of their total produce at a very low price.

In the rural Hindu society a major part of annual income is spent on celebrating festivals, ceremonies, keeping in touch with and spending a lot for relatives. To meet all these expenditure the small and marginal farmers are forced to sell paddy when price is very low. It is also a risky task to store paddy for a long time to get more revenue. To protect it from fire and rats farmers used to store it under ground. However, despite their sincere effort the weight of food grains decreases to some extent and a major proportion of it is eaten away by rats at the time when the price reaches peak level.

This reflects lack of organisation among the farmers to sell paddy at a high price. Even the price prevailing in the rural market is lower than the procurement price fixed by the Government of Orissa which is Rs.320 per quintal. The mill owners who sell rice to Food Corporation of India are supposed to buy paddy at a price fixed by the Govt. But a marked difference between the prevailing market price and price fixed by the Government (procurement price) resulted in accumulation of surplus by the mill owners. After discussing the functioning of the land, labour, credit and output

markets it may be worthwhile to look into the interlocking of Markets.

### 4.3 2 Interlocking of Markets:

The literature on interlocking of markets emphasised on the linkages between the transactions in one market with those of other markets. Interlinking of contracts as defined by Braverman and Srinivasan (1980:4) as transactions in more than one commodity or service made between the same pair of individuals and linked in an essential way (so that) declining the contracts would be infeasible or costly for at least one party. The interlinkage may be of various types but here we are dealing with land, labour, credit and output markets only. For instance, to define the interlinkage between credit and labour market it is assumed that the money lender is a land owner who lends money to the labourer (whom he employs) at a lower rate of interest and get labour power by paying wage lower than the market rate. Similarly if the landowner gets output at lower than the price that prevailed in the market then it is considered to be interlinked with the output market.

Considering the linkage between labour and credit market in our survey area it is observed that there is an insignificant link between these markets. This is because demand for labour has declined considerably after the emergence of agrarian relations. The landowners demand for labourers mainly arises for agricultural operations which no longer prevails. Though some landlords lend money, they do not generally lower the rate of interest below the market rate. This is because there is a monopolistic competition prevailing in the credit market. Further, the money lender does

not get any incentive for which he would lower the rate of interest. Similarly no link is observed between land and output markets. First, from the tenants point of view, as mentioned earlier, the tenants are not tied to a particular landlord because they are leasing in land from a number of households and hence, they can not commit to sell their produce to a particular landlord.

So far as interlinkage of credit and output market is concerned although there are some landowners who provide credit to their tenants they can never compel them to sell the output at a lower price.[54] Further, as mentioned, currently, the tenants lease-in land from a number of rentiers and hence they do not solely depend on one individual. Infact, there is no link of labour and credit markets with the output market and insignificant connection between land and labour markets. It is obvious that absence of agricultural activities' declined the demand for labourer considerably, still the rentiers get some free labour for some other activities. It is observed that more often they are paid directly or indirectly either in kind or in cash. The tenants are also not willing to provide free labour services in a state of rising wage rate.

**Conclusion:**

It was observed that the labour, credit and output market play a significant role in the changing agrarian scenario. The absence of irrigation necessitates the off season migration of farmers who

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[54]. Here we did not distinguish between money lender and landlord as no one has the main occupation of lending money. Primarily they are landlords but lend money also.

save a major proportion (at least 60 to 65 per cent) of the total income. Further, around 42 per cent of their gross income in a year comes from migration only. This ofcourse differs across categories depending on the type of work done, days of outmigration and the number of migrants. However, a rise in saving from migration acts as a cushioning for the tenants to lease-in land and purchase from the landowners.

In the credit market it is discernible that dependency of borrowers on informal credit institution still persists despite prevalence of high interest rate. It is primarily due to the transaction cost, low probability of receiving it and the political clout in getting loan from the formal credit institutions. Moreover, the time of receiving and repayment of loan combined with the uncertainty and risk associated compel the small and marginal farmers to rely on landlords and money lenders.

Looking at the functioning of the output market it is observed that lack of organisation among farmers coupled with unequal distribution of land holding and absence of alternative opportunities reduces the profit of small and marginal farmers to a great extent. Even the price prevailing in the market is much lower than that fixed by the Government of Orissa which can be attributed to lack of effective demand in the market. This is also associated with off season migration and increase in area under tenancy. Thus it follows that there is lack of Government intervention to check the price of food grains and squeeze the profit of the mill owners.

Considering the interlocking of markets which is more often discussed in the literature as a tool through which exploitation of poor peasants can take place, it is observed that there is no such things between labour credit market and output markets. And there is an insignificant link between land and labour markets. In the next chapter we will try to make a comparative study of magnitude of trends in cost of production with that of revenue.

# Chapter 5
# Rationale of Cultivation

## Introduction:

So far we have argued that a faster rise in cost of production as compared to the net revenue from cultivation facilitated the transition from owner-cultivation to tenant-cultivation in the village under survey. This chapter addresses these issues and tries to explore the magnitude of rise in cost of production and revenue during the last ten years.

In the cost composition, wage payment constitutes a major item. During the last seven years, this has escalated at an increasing rate. At the same time the price of paddy which fluctuates more often does not show a consistent rising trend. This compels the cultivators, especially Brahmins to lease out their lands for rents.

Here one may querry "Why do the tenants lease in land despite the rise in cost of Production?" It might be due to employment of family labour and use of draught animal which could have reduced the cost of production considerably. Secondly, lack of other employment opportunities in the kharif season might have forced the landless tenants to lease in land even when the cost of cultivation is rising.

This chapter is organised as follows. Section 1 offers an analysis of the trends in wage rate during the last decade. Section 2 examines the movement in the price of paddy during the same period.

In the last section a comparative analysis of benefit and cost for different crops are analysed mainly to investigate the factors responsible for a decline in self cultivation.

## Section 1

### 5.1.1 Trends in Wage Rate:

In a labour intensive agrarian economy the cost of production is highly dependent on wage rate. Hence through an analysis of both paid out and imputed wage (cost) of family labour we can infer, to some extent, the movement of costs. The paid out cost is composed of fixed and variable costs. They include expenditure incurred for payment of wage, price of pair of bullocks, plough, fertiliser and seeds used during the period of cultivation. Infact, it is difficult to price the supervision and management cost even though it is one of the most important factors which influenced the cultivators to lease out their land.

To analyze the movement of wage rate in the 1980s we have used agricultural wages in India (for Ploughman in Orissa, Centre: Chandbali). The sample for wages given in Table 5.1 is of a village (Chandbali) which is located very close to the study village. Some of the characteristics of the proxy village are similar to the village under study. Both the villages are unirrigated and do not have tribal population, which could have differentiated the labour market. Here emphasis is laid on the wage rate of plough man (*halia*) over the decades as there is not much difference between the wage rate of plough man and workers employed in other agricultural activities other than female, children and herdsman. In our survey it is observed that female

participation in agricultural operation is very low and hence, there is no need to take into account the wage rate of females.

Considering the average wage rate of plough man shown in Table 5.1 (Figure 5.1) it can be inferred that average wage rate of plough man (halia) which was Rs.5 in 1980-81 has increased to Rs.25 in 1993-94 and in August 1994-95 it become Rs.30 (not shown in the table). It is not only true that nominal wage rate has increased several fold within a time span of fourteen years but it also increased at a faster rate during the last seven years.

Table 5.1: Agricultural Wages for Ploughman in Chandbali
(in rupees)

| Year | Average Wage* | Average Wage (July-Nov) | Average wage (Dec-June) |
|---|---|---|---|
| 1980-81 | 5.00 | 5.00 | 5.00 |
| 1981-82 | 5.67 | 5.80 | 5.57 |
| 1982-83 | 4.75 | 4.40 | 5.00 |
| 1983-84 | 7.08 | 7.60 | 7.83 |
| 1984-85 | 8.43 | 9.00 | 8.00 |
| 1985-86 | 9.17 | 8.00 | 10.00 |
| 1986-87 | 10.00 | 10.00 | 10.00 |
| 1987-88 | 10.00 | 10.00 | 10.00 |
| 1988-89 | 13.08 | 14.00 | 12.57 |
| 1989-90 | 15.00 | 16.00 | 14.43 |
| 1990-91 | 17.58 | 19.00 | 16.57 |
| 1991-92 | 21.25 | 23.00 | 20.00 |
| 1992-93 | 20.42 | 20.00 | 20.70 |
| 1993-94 | 25.00 | 25.00 | 25.00 |

Note: * Average wage rate of the whole year.
Source: Compiled from Agricultural Situation in India and Agricultural Wages in India (Various issues)

Figure 5.1

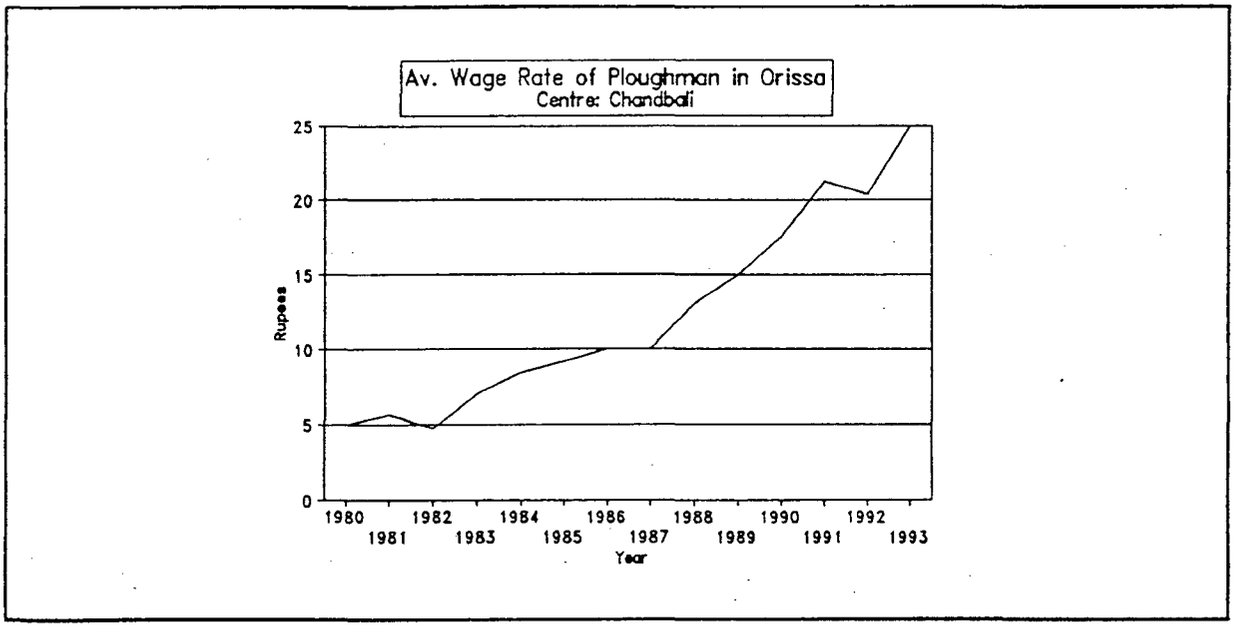



Table 5.2: Growth Rate of Nominal wage for Ploughman in Chandbali (in rupees)

| Year | Average wage rate | Wage Index | Growth rate |
|---|---|---|---|
| 1980-81 | 5.00 | 100 | - |
| 1981-82 | 5.67 | 113.4 | 13.40 |
| 1982-83 | 4.75 | 95 | -16.23 |
| 1983-84 | 7.08 | 141.6 | 49.05 |
| 1984-85 | 8.43 | 168.6 | 19.06 |
| 1985-86 | 9.17 | 183.4 | 8.78 |
| 1986-87 | 10.00 | 200 | 9.05 |
| 1987-88 | 10.00 | 200 | 0 |
| 1988-89 | 13.08 | 261.6 | 30.80 |
| 1989-90 | 15.00 | 300 | 14.68 |
| 1990-91 | 17.58 | 351.6 | 17.20 |
| 1991-92 | 21.25 | 425 | 20.87 |
| 1992-93 | 20.42 | 408.33 | -03.92 |
| 1993-94 | 25.00 | 500 | 22.45 |

Source: Compiled from Agricultural Situation in India and Agricultural Wages in India (Various issues)

As far the real wage, measured in terms of kilograms of rice, it went up from 2.49 kg. per day in 1980-81 to 5.13 kg in 1990-91 (Table 5.3, Figure 5.3)

Nevertheless, in an unirrigated mono crop area the average wage rate of the year does not truly reflect the actual wage paid by the farmers and hence, the cost of production. The wage rate might have gone down in the lean season when there is no work due to absence of irrigation. As a result, the average wage rate will be underestimated. Apart from that generally the farming activities continue for five months due to the use of short duration crop and later on the labourers out migrate to cities for non-farm employment, where they earn more than the prevailing wage rate in the village. Hence, it rather justifies taking the wage rate for peak season.

Figure 5.2

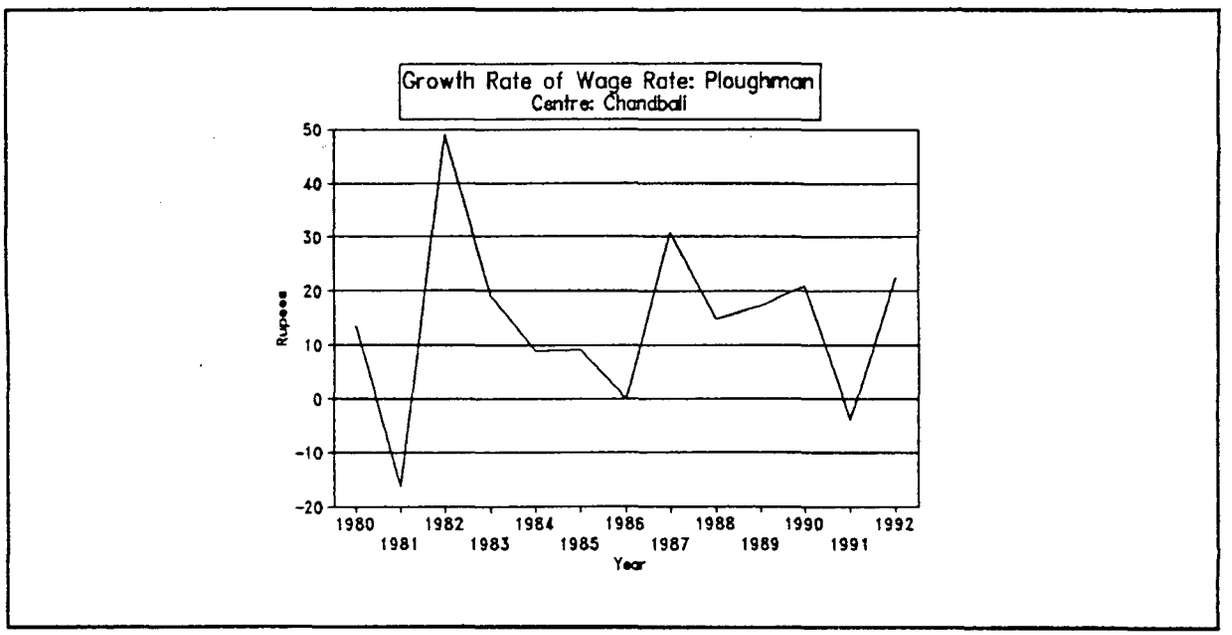
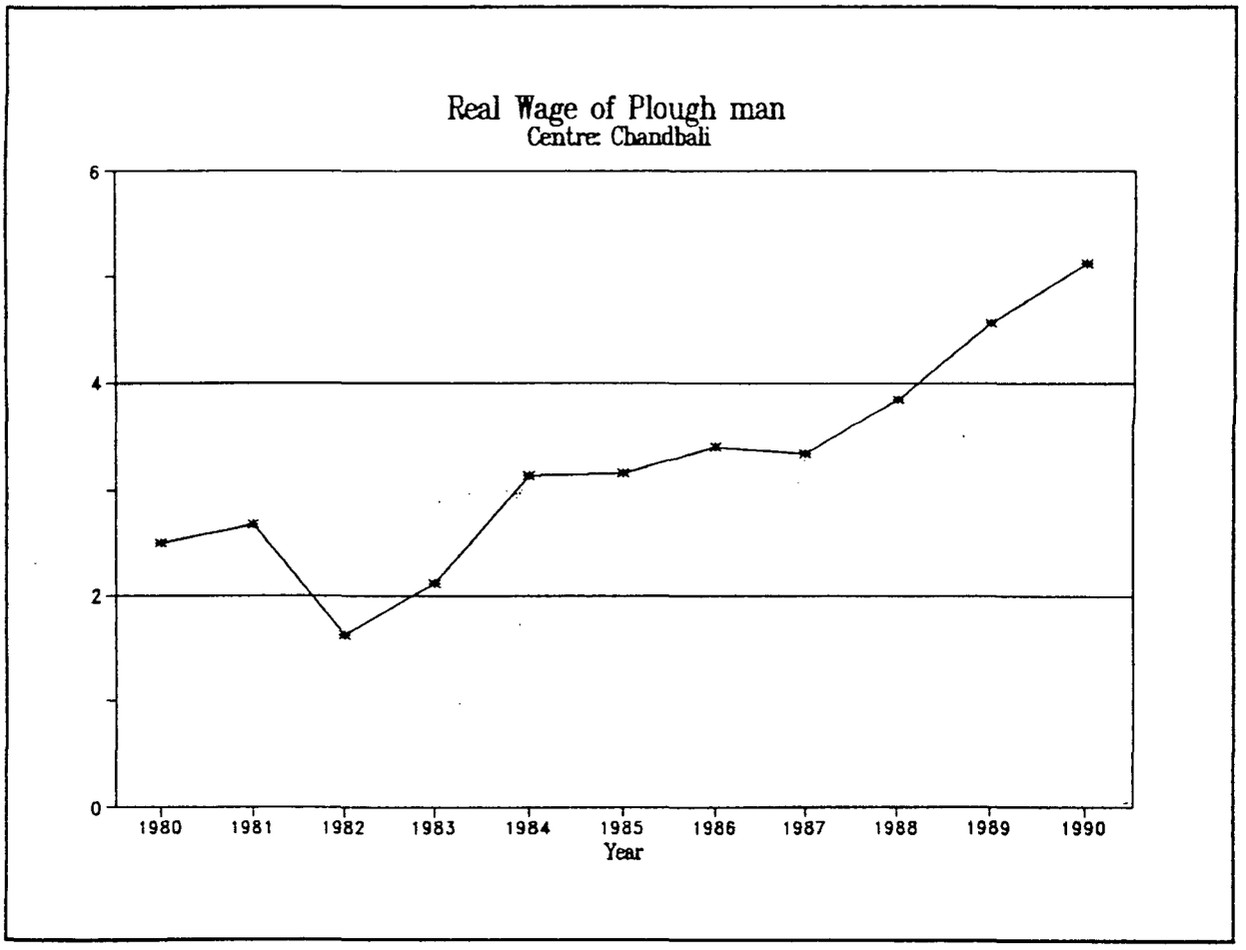


Table 5.3: Real wage of Ploughman (Male) in Chandbali
(in Kg of Rice)

| Year | Real Wage |
|---|---|
| 1980-81 | 2.49 |
| 1981-82 | 2.68 |
| 1982-83 | 1.62 |
| 1983-84 | 2.12 |
| 1984-85 | 3.13 |
| 1985-86 | 3.15 |
| 1986-87 | 3.40 |
| 1987-88 | 3.33 |
| 1988-89 | 3.85 |
| 1989-90 | 4.56 |
| 1990-91 | 5.13 |

Figure 5.3




Moreover, in an agrarian economy where cultivation is weather dependent, which makes the timing of each individual operation

somewhat unpredictable, the cultivators prefer to employ annual farm servant. First, it reduces their dependence on casual labourer. It also helps to finish the farming activities in proper time, which would result in higher production.[55]

The cultivators know from their experience how many labourers are needed annually (seasonally) to cultivate certain extent of land. They may employ hired labourer in the peak season and the wage rate is more than the market wage rate but dependence on them is not very high. The Marginal Product theory of labour based on the equality between the competitive wage and Marginal product of labour is not applicable in the peak season (Bardhan;1979). Hence, the wage rate prevailing in the first few months of the year is the actual wage paid by the cultivator. Further it had to be fixed before hand, especially before the cultivation starts and fluctuation of wage rate does not affect them significantly.

Secondly, there is no immigration of labourer from other places and cultivator has special attachment for few labourers who are familiar with the field very much. The rational behind selecting the labourers who were working in the same field for a long period is to reduce the supervision cost to some extent. Hence, even if the labourers demand higher wage, the cultivators agree to it.

It is more often argued that presence of trade union revises the wage rate more often. But there are no agricultural trade unions

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[55] Production will be higher if it is sown at the earliest. In an unirrigated village dependence on weather compel the farmers to do the job in time and quickly as the risk and costs of delay are very high.

in the survey area. Infact, an assured non-farm employment for four to five months in a year; where the prevailing wage rate is higher than the farm wage obtained in the village, encourages them to demand for a higher wage.

To know the actual wage rate paid by the farmers we have taken into consideration the first five months of the agricultural year, i.e., July to Nov. and calculated the average wage paid by the farmer. From Table 5.1 it is discernible that there is a difference between the average wage rate of the whole year and the average wage rate obtained during the first five months.

If we divide the whole time span into two periods: 1980/81-1986/87 and 1987/88-1993/94; in the first period wage rate has gone up from Rs.5 to Rs.10, i.e., an increase of 100 per cent and in the second period, it increased from Rs.10.00 to Rs.25, i.e., a rise of 150 per cent. Comparing it with the prevailing wage rate at present (Rs.35), it can be asserted that a rise in wage rate by 250 per cent in the last eight years. The rationale for taking 1986-87 as the turning point is that the change in status originated in this year and the average nominal wage rate which was increasing at a decreasing rate during the period 1980-81 to 1986-87, it remained constant for two years and then increased at a higher rate from 1988-89 onwards which is shown in the figure 5.1. Further, there was no cyclicality and absence of acceleration and deceleration during the two periods. Secondly, to study the trends in wage rate during the last seven years and its impact on changing agrarian relations which originated in 1986-87 there is a need to divide the

time period. In other words, we try to examine whether there is any association between change in status and change in wage rate.

Table 5.4: Monthly fluctuations of Agricultural Wages of Ploughman in Chandbali, Orissa

| Year | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Avg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1980-81 | 4 | 5 | 5 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 1981-82 | 5 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 5.67 |
| 1982-83 | 4 | 4 | 6 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4.75 |
| 1983-84 | 8 | 8 | 8 | 7 | 7 | 7 | 8 | 8 | NA | 8 | 8 | 8 | 7.08 |
| 1984-85 | 10 | 10 | 9.2 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8.43 |
| 1985-86 | 8 | 8 | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 9.17 |
| 1986-87 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10.00 |
| 1987-88 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10.00 |
| 1988-89 | 12 | 15 | 15 | 12 | 15 | 10 | 15 | 12 | 12 | 12 | 15 | 12 | 13.08 |
| 1989-90 | 15 | 20 | 12 | 12 | 20 | 15 | 12 | 15 | 12 | 12 | 20 | 15 | 15.00 |
| 1990-91 | 20 | 20 | 15 | 15 | 25 | 20 | 16 | 15 | 15 | 15 | 15 | 20 | 17.58 |
| 1991-92 | 20 | 25 | 25 | 25 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 21.25 |
| 1992-93 | 20 | 20 | 20 | 20 | 20 | 25 | 20 | 20 | 20 | 20 | 20 | 20 | 20.42 |
| 1993-94 | - | 25 | 25 | 25 | 25 | 25 | 20 | 25 | 25 | 25 | 25 | - | 25.00 |

Note: NA is not available
Source: Compiled from Agricultural Wages in India and Agricultural Situation in India (Various issues)

A comparative study of wage rate of plough man (Halia) during two periods reflect that it has gone up at a faster rate in the second period in comparison to the first period. Besides, an instability of wage rate is clearly distinct in the second period, as shown in Table 5.4. The fluctuations in wage rate has also widened during different months of the second period in comparison to the first period. For instance, in 1990-91 the daily wage rate was Rs.15 in the month of October and it increased to Rs.25 in November,i.e., a rise of 65 percent. Again, from 1990-91 onwards, the wage rate has either remained constant during different months of a year or increased by at least five rupees. Increase in wage rate by five rupees during different months of a year forced the cultivators to stop cultivation. As mentioned earlier, the wage rate has gone up

by at least three rupees per year in the second period. But a close look at the data reveals that it has gone up more than three rupees in the first few months (kharif season) of the second period (Refer Table 5.4).

In the second period, the increase in wage rate in the peak season, generally does not come down in the lean season, especially at the end of the year and this becomes the prevailing wage rate of the next year. For instance, the prevailing wage rate in July 1987-88 was Rs.10 which did not fluctuate during different months of the year. But in the first two months of next year it increased to Rs.12 and Rs.15 respectively; an increase of fifty per cent. It also remained constant in the month of May, despite fluctuations in different months of the year. Similar pattern is more or less observed in the following years.

Persistence of an increasing wage rate in the lean season can be explained by considering a decline in supply of labour due to off-season migration. Further, the agricultural activities which depend on weather needs assured supply of labour in the Kharif season. This compelled the employers to pay the wage rate which prevailed in the peak season. If we compare the amplitude of inter season wage variation with the productivity then the former is lesser than the latter (Bardhan; 1979). However, from Table 5.4 it can be inferred that the wage rate was increasing consistently by five rupees per year, especially during the kharif season between 1987-88 and 1991-92.

Now, it may be pertinent to ask "Why the wage rate went up consistently by five rupees per year from 1987-88 onwards and the relationship between increase in wage rate and activation of land market?" As mentioned earlier, the change in occupational status originated in 1986-87 but it got accelerated from 1987-88 onwards and hence, we are taking 1987-88 as the turning point. The rationale behind the change in occupational status rests on the issue of increase in wage rate from 1987-88 onwards and there is a casual link between these two factors.

The average wage rate which was Rs.10 per day (normally for 8 hours work) in 1987-88 increased to Rs.13 in the next year and there was a further rise to Rs.15, Rs 17.60, Rs.21.25 and Rs.25 in the subsequent years. One observes that the wage rate increases at an increasing rate during the last few years. There are several factors such as the activation of land market, assured non-farm employment with high wage rate and declaration of a higher wage rate under the Minimum Wage Act by the Govt. of Orissa can be considered to as factors explaining the logic behind it. Considering the activation of land market, it is evident that land market got activated from 1987-88 onwards and there is one year time lag between increase in wage and increase in land lease.

Once the wage rate exceeded Rs.10, some of the cultivators decided to lease out their lands. Some of them might not have leased out due to absence of other employment opportunities or they could have reduced the cost of production by employing mainly the family labour. As mentioned earlier, the aim of a rational rentier is to maximise his income. The farmers in the village chose to lease out

their lands in small parcels to a number of tenants. This is in agreement with the arguments of Das(1976). If so, assuming supply of labourer is fixed in a short run there will be a decline in supply of labourers in the subsequent years. This is because those who leased in land will not come to the labour market as they have to cultivate their leased-in land at the right time.

In other words, during the peak season, there occurs a decline in the supply of labour. As the decline in supply of labour is more than the fall in demand for labour, this pushed up the wage rate further. This is so as the cultivators prefer to lease out in small parcels. For instance, to cultivate 10 acres of land a farmer may employ (say) two labourers as farm servants but if he decides to lease out then he prefers to lease-out to more than two households (say five) as total output will be more if it leased out in small parcels. As a result, in the following year the demand for labourers comes down by two while the supply is reduced to five assuming there was involuntary unemployment in the labour market, especially in the Kharif season. Hence, fall in supply more than the demand will lead to a rise in wage rate. Further rise in wage in the next year would compel more cultivators to lease out and hence, the rise in wage rate continues. Besides, in the present state labourers with greater ability would prefer tenancy, especially sharecropping rather than wage contract. This would lead to less able labourers being available as farm servants. As a result, the wage payment, and hence, cost of production will be higher in the subsequent years. The increase in wage rate will not dampen even when cultivators stop leasing out land because the demand for labourers would be there particularly during the peak

season. More so if they do not have enough family labour. It not only depends on dependency ratio (Rodgers;1975) but also on population growth, sex ratio, caste, available alternative employment opportunities and distribution of land. "There is a positive association of wage rate with not only demand expansion factors (through agricultural development or across seasons) but also with the dependency ratio in the labour household, and negative association with women, lower caste workers, landed workers and inequality in land distribution (Bardhan,1979)."

The second point to be emphasised is the assured non-farm employment in the Off-season. To outmigrate in the Rabi-season, the labourers take advances from the contractors. The payment of wage is in piece rate and earnings of individuals differ depending upon their capacity to work, age, skill, type of work etc. For instance, in Brick making industry, it varies from Rs.40 to Rs. 100 per day while a cook can earn Rs.200 to Rs.500 per day, especially in certain months of a year when people celebrate the family functions. But in case of former the man days is higher than the latter despite the fact that the total wage payment is higher in case of latter. Here two things are to be taken into consideration, i.e., skill, risk and caste. For instance, an unskilled labourer can make bricks but can not be a cook. Similarly, only Brahmins are allowed to cook and hence, they have the monopoly power to earn more. Third, revision and enforcement of minimum wage in various periods under the Minimum Wage Act, 1948 and Contract Labour (Regulation and Abolition) 1970, has an impact on the rise in wage rate. The farmers are aware of the fixation of

minimum wage by the Labour Commissioner of Orissa at Rs.25 and its implementation from 1st July 1990.

These discussions reflect only the cost aspect of the agricultural production. To examine whether agricultural production is to be carried on or not it is necessary to look into the revenue aspect of it.

## Section 2

### 5.2.1 Movment in Paddy Price:

The amount of profit earned by the farmers directly depend on the price of paddy and productivity of factors of production. In an unirrigated monocrop area where use of HYV seeds and chemical fertiliser is very low, the profits of the farmers depend on the price of paddy. The trend in the price of paddy is given in Table 5.5. From the same it can be inferred that price of paddy in the district has gone up from Rs.200.42 to Rs.343, a rise of 72 per cent during the time span of ten years.

Table 5.5: Wholesale Price of coarse rice in Balasore, Orissa (Rs.per quintal)

| Year | Rupees |
|---|---|
| 1980 | 200.42 |
| 1981 | 211.82 |
| 1982 | 292.72 |
| 1983 | 335.83 |
| 1984 | 269.17 |
| 1985 | 290.83 |
| 1986 | 293.75 |
| 1987 | 300.00 |
| 1988 | 340.00 |
| 1989 | 329.00 |
| 1990 | 343.00 |

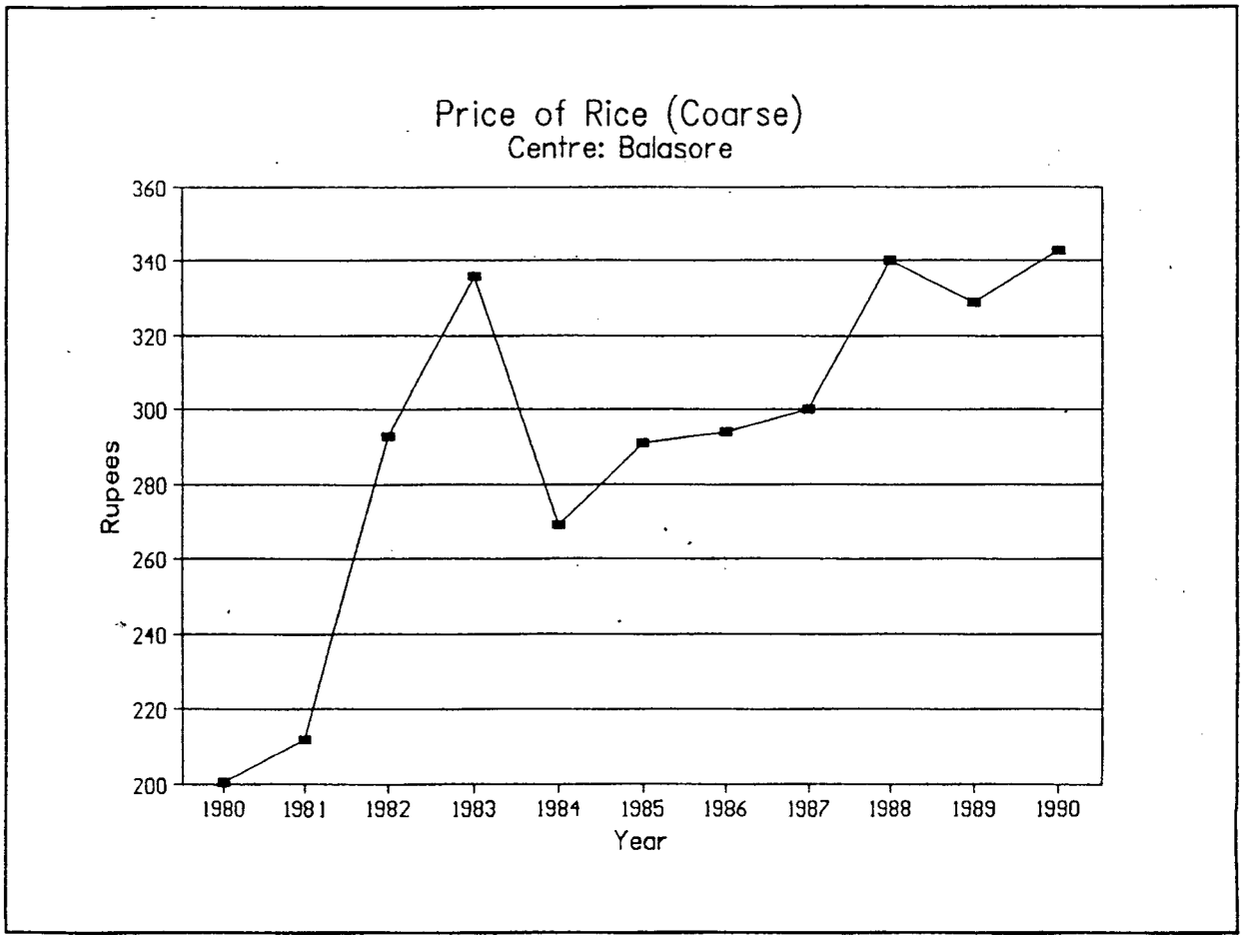
Source: Agricultural prices in India (Various issues)

But the year to year growth rate of price of paddy does not show a consistent rise rather a wide spread fluctuation over the years is discernable from Table 5.6. For instance, the growth rate of price which increased by 38.19 per cent during 1981-82 has gone down to -19.84 per cent during 1983-84 and in the subsequent years it does not show an impressive trend except in the year 1987-88 when it increased to 13.33 per cent (see Figure No 5.4).

Table 5.6: Whole sale price of coarse rice and its growth rate in Balasore (Rs.Per quintal)

| Year | Price | Price Index | Growth Rate |
|---|---|---|---|
| 1980 | 200.42 | 100.00 | - |
| 1981 | 211.82 | 105.68 | 5.68 |
| 1982 | 292.72 | 146.05 | 38.19 |
| 1983 | 335.83 | 167.56 | 14.72 |
| 1984 | 269.17 | 134.30 | -19.84 |
| 1985 | 290.83 | 145.11 | 8.04 |
| 1986 | 293.75 | 146.56 | 1.00 |
| 1987 | 300.00 | 149.68 | 2.12 |
| 1988 | 340.00 | 169.64 | 13.33 |
| 1989 | 329.00 | 164.15 | -3.23 |
| 1990 | 343.00 | 171.14 | 4.25 |

Figure 5.4




## Section 3

### 5.3.1 Cost and Benefit: A comparison

It is the general notion among the cultivators that cost of production has gone up in recent past at a faster rate which is primarily due to increase in wage rate. Along with the increasing wage rate one can also observe an increasing trend in the price of bullocks and plough over the last decade.

Now let us examine the cost of production of certain commodities cultivated in unirrigated and irrigated villages. As mentioned in

the farm management studies the cost of production can be divided into cost A1, cost A2, Cost B and Cost C.[56]

Using Cost A1 we will derive the paid out cost of the owner cultivator. However, we are not including machine labour, depreciation on implements, machinery and farm buildings and own bullock labour. The logic behind it is that except depreciation of farm buildings which are not available in the village other factors do not seem to contribute a lot in the cost of production. For instance, depreciation of implements such as plough if included will not increase the total cost largely as its price is only Rs.65.74 in 1989. Further, tractor is not available in the unirrigated village and very few own pump sets. Hence, if depreciation is included, the cost of production will be over estimated. To calculate the interest on working capital item (a) to (f) in Cost A1 excluding owned bullock labour are considered.[57] In the farm management studies the interest rate on working capital was charged at 8.70 per cent for half of the duration of the crop. Here, the interest will be 60 per cent per year as the farmers used

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[56] Cost A1: This cost approximates the actual expenditure incurred in kind/cash and it includes (a) Hired human labour (b) Owned and hired bullock labour (c) Machine labour (d) Seeds (e) Manures and Fertilisers (f) Plant protection chemicals (g) Depreciation on implements, machinery and farm buildings, etc., (h) Land revenue, cess, water rates etc. (i) interest on working capital.

Cost A2: Cost A1 plus rental value of leased in land. This applies only for tenant operated farms.

Cost B: Cost A2 plus interest on fixed capital excluding land and rental value of owned land.

Cost C: Cost B plus imputed value of family labour.

Source: Farm Management Studies.

[57]. To calculate interest on working capital the Farm Management studies considered items (a) to (f) mentioned in Cost A1. The rate of interest was 8.70 per cent for half of the duration of the crop.

to borrow from the money lender for cultivation purpose only which was discussed in chapter 4.

Table 5.7: Profit and Loss per acre of Paddy (1993-94) (Traditional/Improved variety)

| Items | Quantity (Kg/Day) | Value (Rs) |
|---|---|---|
| (a) Seeds | 20 | 60 |
| (b) Human Labour | 29 | 870 |
| (i) Tilling | 7 | 210 |
| (ii) Transplantation | 8 | 240 |
| (iii) Weeding | 4 | 120 |
| (iv) Land Preparation | 3 | 90 |
| (v) Harvesting | 7 | 210 |
| (c) Fertilisers | 30 | 105 |
| (d) Bullock Labour Hired | 7 | 210 |
| (e) Interest on working Capital | - | 186.75 |
| (f) Land Revenue | - | 8.00* |
| (A) Total Expenditure | | 1439.75 |
| (a) Gross output | 7.5 | 1875 |
| (b) Straw | - | 2000 |
| (B) Total Revenue | | 3875 |
| Profit (B)-(A) | | 2436.25 |

Note: * 1) Land Revenue differs across lands (Sarad 1, Sarad 2, Sarad 3). It ranges from Rs.5.50 to Rs.10.50.
2) The value of straw is calculated by multiplying the average prevailing price of straw with the average amount of straw produced per acre. It is the amount of price which the farmer would get if he would sell the whole amount in the market.

Source: Field Survey (1994)

This shows that if bullocks are hired in then profit will be Rs.2436.25 per acre. However, in the survey area there is no market for hired bullock. Sometimes few households hire out bullocks after their cultivation is over. And this is not a wide spread practice. Infact, in an unirrigated village farmers have to

buy bullocks for cultivation at proper time.[58] Some individuals with smaller holdings buy only one bullock to exchange with others to reduce the expenditure on bullocks.[59]

Although the market price of bullocks differs across space and time, at present it clusters around Rs.5000 per pair which is quite a huge sum. That to, for maintaining a pair of bullocks the landowners employ a boy (normally below 15 years), whose salary per month is Rs.250 (Rs.3000 per year). If we include it with the expenditure on food and clothing of a person then the total expenditure will be Rs.6200 per year. The expenditure will shoot up if the farmers borrow money from the money lenders at an exorbitant rate of interest.

On the other hand if we consider the days of employment of bullocks which mainly depends on the operational holding of different categories, does not exceed two months. For instance, the average operational holding of owner cultivators is 2.72 acres, which need the bullocks to be used for 20 days (7 days per acre). This is primarily due to lack of irrigation which excludes multiple cropping and hence utilisation of the same throughout the year. The bullocks are also rarely used for transportation purposes by a few households.

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[58]. Absence of tractor in the village also increases the demand for bullocks in the village.

[59] According to Farm Management studies "cost of maintenance of bullock labour includes expenditure (value) of fodder, concentrates, other feeds, labour charges on upkeep, housing, depreciation, veterinary and other charges. Interest on the value of the animals and cattle sheds is also included in the maintenance cost."

One may ask the absence of substitution from bullocks to tractors with increasing maintainance as well as net cost per bullock per day. There are several reasons for keeping bullocks despite the rise in costs. First, in a rain-fed area the farmers wait for the monsoon and they have to till immediately, the day after the first monsoon showers. It also depends on the extent of rain fall, the drainage system and the level of soil. To perform it every one needs a pair of bullocks. Second, fragmented landholding coupled with lack of irrigation restrict use of tractor throughout the year. For instance, if the holdings are scattered here and there then the cost of using the same will push up. Similarly, lack of water in the Rabi results in the non utilisation of the tenants for ten months in a year. Third, for the first round of cultivation farmers can use tractor but in later period it can not be used. Fourth, the area of land also play a role in this direction because it is difficult to till a very small piece of land, especially in an area where land distribution is skewed. Fifth, use of tractor some times brings the saline soil to the surface and the upper level fertile soil goes down to the bottom which restricts growth of plant and output. This matters a lot when the operational holding is very small. Sixth, tractor leaves some portions of the land untilled from every side. As a result, the gross output comes down. Infact, the prevalence of high rate of interest with loss of collaterals encourages the investors to lend money rather then to invest on tractor. However, the above problem can be solved to some extent by the power tiller as it does not need huge investment. Some households who own cows do not need to buy bullocks from the market. Now let us compare the scenario in the irrigated village.

### 5.3.2 Irrigated Village

In the irrigated village water is assured throughout the year. As a result, there are three crops in a year. To increase the intensity of cropping they cultivate the shorter duration HYV paddy which is ready for harvest in 120/135 days. In November after the Kharif HYV paddy is harvested they cultivate Mustard and Vegetables then again in January they go in for a second crop of HYV paddy. Further, agricultural activities throughout the year ensures a greater utilisation of fixed factors. In the irrigated village although there is as such no formal bullocks market still hiring the bullocks is a common phenomenon and hence, the cost of production comes down. Further, the operational holding of the households in the irrigated village is very low which helps the farmers to finish the work as early as possible and hire out the bullocks. For instance, the cost of production per one acre of Mustard is Rs.1520 while the average gross revenue is Rs.3000 (Refer Table 5.8). Hence, the profit margin is Rs. 1480 which a farmer gets within 75 days.

Table 5.8: Profit and Loss per Acre of Mustard (1993-94)

| Items | Quantity (Kg/Day) | Value (Rs) |
|---|---|---|
| (a) Seeds | 4 kg | 60 |
| (b) Tiling including hired bullocks | 11 days | 660 |
| (c) Water charges | | 25 |
| (d) Fertilisers | | 625 |
| (e) Pesticide | | 80 |
| (e) Harvesting | | 80 |
| (A) Total Expenditure | | 1520 |
| (a) Gross output | 3 quintal | 3000 |
| (B) Total Revenue | | 3000 |
| Profit (B)-(A) | | 1400 |

Note: * We have taken the average gross output. Output varies across holdings.
Source: Field Survey

Similarly in case of HYV seeds the profit margin is even higher than that of Mustard as it is around Rs.3860 per acre which is shown in Table 5.9.

Table 5.9: Profit and Loss per Acre of HYV Paddy (1993-94)
Duration: 120-135 days

(Per Acre)

| Items | Quantity (Kg/Day) | Value (Rs) |
|---|---|---|
| (a) Seeds | 40 kg | 140 |
| (b) Tiling including hired bullocks | 8 days | 480 |
| (c) Manure | 25 | 25 |
| (d) Transplantation | 24 days | 480 |
| (e) Weeding | 6 days | 120 |
| (f) Harvesting | 15 days | 375 |
| (g) Fertilisers | (50kg+25kg+75kg) | 712.5 |
| (h) Pesticide | 6.25 kg | 250 |
| (A) Total Expenditure | | 2582.50 |
| (a) Gross output | 25 quintal | 6250 |
| (b) Straw | | 200 |
| (B) Total Revenue | | 6450 |
| Profit (B)-(A) | | 3860.50 |

Source: Field Survey

The most interesting feature that emerges is the use of inputs in exact proportion as prescribed by the agricultural Departments of Orissa. If we compare it with the unirrigated village, use of chemical fertiliser and pesticide is minimum.

To examine "why and how the landless agricultural labourers demand for land when land owners stopped cultivation;" several factors such as wage rate, maintenance cost of bullocks, employment of unmarketable family labour, supervision cost, cost of monitoring the labourer and available employment opportunities are considered. The role of family labour in tenant-cultivation has important implications.

As observed earlier, in the cost of production, there are two major components such as wage payment and expenditure on purchasing a pair of bullocks and its maintenance cost, which has been increasing considerably. For most of the tenants the wage payment is zero, which constitute more than 60 per cent of the total paid out cost (Refer Table 5.7).

Considering the owner cultivators, who become rentier at present, generally employ boys for their cattle. This is because as mentioned in Chapter 2, they are socio-economically better off and hence, used to send children to school and college. The literacy rate and employment in the service sector is very low for tenants. Besides, the maintenance cost (excluding expenditure on food) of bullocks is zero for most of the tenants and owner tenants as their family members look after it. This not only reduces the maintenance cost but also utilises non-marketable family labour whose opportunity cost is zero. This is especially so in the Kharif Season. This is because with tenancy replacing owner-cultivation on a large scale the demand for child labour has come down drastically. Similarly, employment of women in the agricultural operation is very rare. This is evident from Table 5.10.

Table 5.10: Employment of Family Labour

| Categories | No. of H.Hs | H.Hs empl. Family Lab. | Son | Son & Bro | Son & wife | Total |
|---|---|---|---|---|---|---|
| Tenant | 12 | 8 | 5 | 1 | 2 | 8 |
| | (100) | (66.67) | (62.5) | (12.5) | (25) | (100) |
| O.Tenants | 8 | 6 | 5 | - | 1 | 6 |
| | (100) | (75) | (83.33) | | (16.66) | (100) |
| O.Cult. | 13 | 5 | 5 | - | - | 5 |
| | (100) | (38.46) | (100) | | | (100) |
| Total | 33 | 19 | 15 | 1 | 3 | 19 |
| | (100) | (57.57) | (78.9) | (5.26) | (15.79) | (100) |

Note: Figures in the parentheses are in percentages. Son & Bro: Son and Brother

Around 60 per cent of the total households who are cultivating land at present employed their family labour (Table 5.10). Among them almost every one employed their son. The employment of women in agricultural activities is restricted only to 16 per cent of the farm households. Infact, a comparative picture of employment of family labour by various categories suggests that it is maximum for owner-tenants followed by tenants categories whereas it is least for the owner cultivator category. Besides the decline in maintenance cost and wage payment, the cost of supervision and monitoring work is also zero for tenant and owner tenants categories.

It is also an accepted fact that the gross output is higher in the tenant cultivated farms as compared with the owner cultivating farms. This does not go in line with the argument put forth by Chattopadhaya (1979). He argues that owner cultivation is always more profitable than tenant cultivation because of two reasons. First, the land leased out is mostly a poor quality and hence the productivity is low. Secondly,

owner cultivator has more access to monetised inputs in comparison to tenants.

We argue that in a state of rising cost of production (wage rate, price of bullocks and its maintenance, supervision and monitoring cost) coupled with gross inequality in distribution of assets, the tenant cultivation, especially share cropping is more profitable than owner cultivation. In our survey it is observed that the area under tenancy is around 90 per cent and no distinction is made between poor and good quality of land before leasing out. Ofcourse the access to monetised inputs is more in case of owner cultivators in comparison to tenants but a wide spread prevalence of share cropping has lead to the active participation by both the parties and with the sharing of some variable costs equally, the access to monetised inputs does not necessarily obstruct production. Further, access to credit might be a severe problem in the first few years but if tenant cultivation continues for a long period and the operational holding of the tenants is very high then it will not be an obstacle for production. It is also observed that employment of non marketable family labour and draught animals coupled with the maximum effort put by the tenants lead to a rise in production.

Now, one may examine the rationale of the landowners to lease-out land for a long period of time rather than sell it off under a unprofitable cultivation regime. As mentioned in chapter 3, it is the principal source of income for them. They also evaluate returns from investment in land differently as compared to commercial profit calculation because of their personal valuation

of such land. Besides in a highly uncertain environment, land is also a relatively reliable[60], secure and marketable form of wealth. Moreover, low probability of getting back the same piece of land in near future is the major factor which influences the household not to sell the land [Basu(1986, 1990)]. It is also observed in the survey area that people have strong attachment for particular piece of land and they do not sell it unless they are under distress conditions.

**Conclusion:**

Analysing the rationale of cultivation it was observed that the cost of production has gone up at an increasing rate during the last decade. It has gone up since both wages, prices and maintenance costs of bullocks have increased substantially, compelling the land owners to stop cultivation. On the other hand, the revenue earned from agriculture does not show a consistently rising trend since it depends exclusively on the price of paddy which fluctuates widely from year to year. Absence of irrigation has also ruled out the option of multiple cropping or of increasing the intensity of cropping which could have lead to a rise in productivity and hence, revenue. Further, absence of market for bullock hiring has led to huge investments on the purchase and maintenance of a pair of bullocks which can be utilised for not more than two months in a year.

On the contrary, the tenants try to reduce the cost of production by employing family labour and putting more effort. The supervision cost as well as maintenance cost (excluding expenditure

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[60]. See Sen 1981; Hill 1986 and Platteau 1990.

on food) is zero for most of the tenants, which is primarily due to the utilisation of non-marketable family labour. Absence of other employment opportunities in the Kharif season also compel them to lease-in land despite a rise in cost of production. In the next chapter we will make a comparative study of unirrigated and irrigated villages by taking into account aspects such as agrarian relations, functioning of various markets, outmigration, patterns of employment.

# Chapter 6
# Land Relations and Agrarian Development between two villages

Introduction:

In the last four chapters we have been discussing the factors responsible for changing agrarian relations in an unirrigated village. The objectives of this chapter are to examine the agrarian relations in an irrigated village and compare them with those of the unirrigated one. Further a change in agrarian relations in recent past, will be documented by considering both socio-economic and agro-climatic conditions.

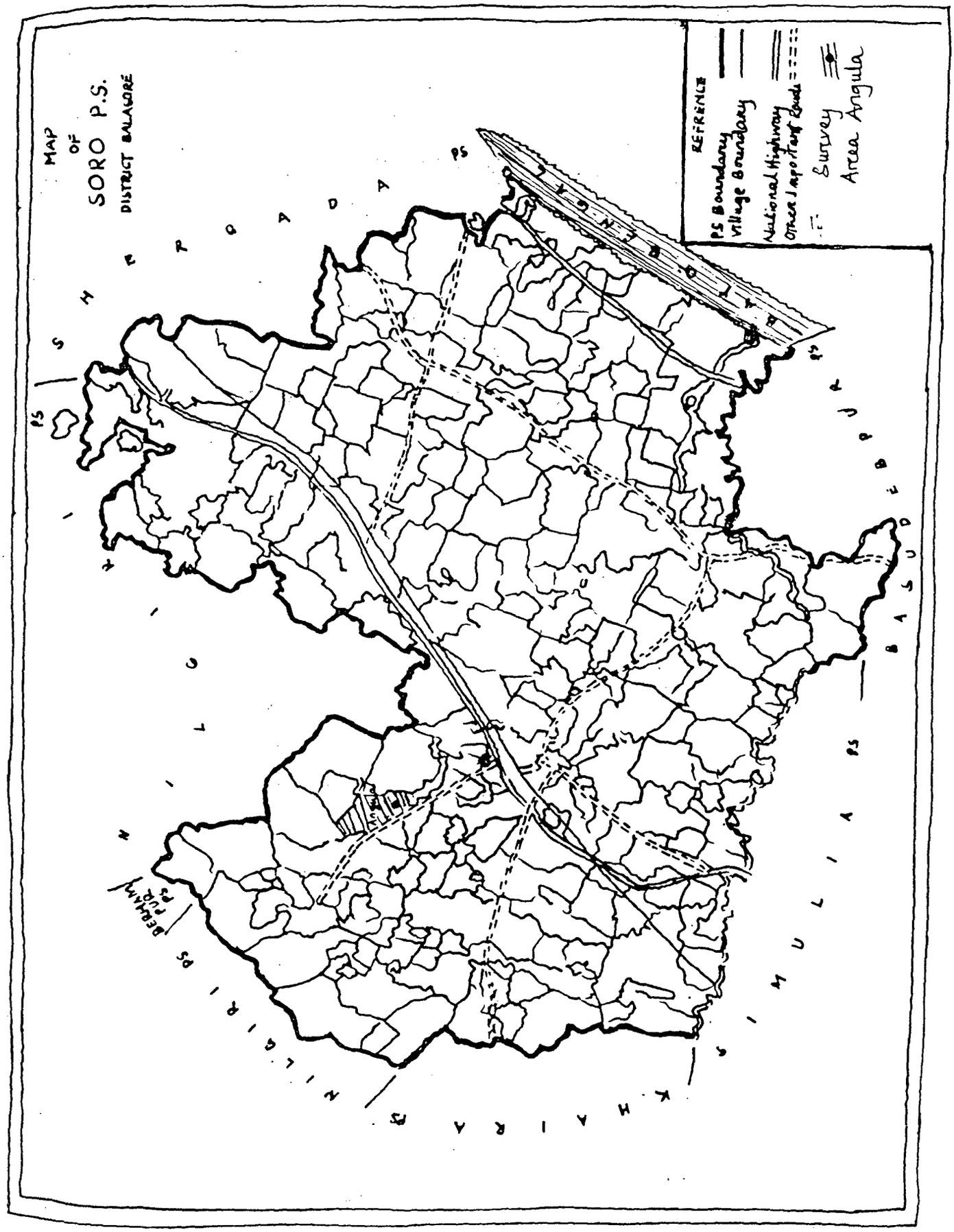
This chapter is divided into four Sections. Section 1 deals with a brief overview of the village under consideration. The existing agrarian relations are also discussed in this section. Section 2 seeks to explore the functioning of land market. Functioning of labor market is examined in Section 3. The last Section addresses the role and performance of credit market.

## Section 1

### 6.1.1 Irrigated Village: An Overview

The village Angula is in the Balsore District (Block: Soro, see Map No. 6.1). It has an area of 369.48 hectares. There is no public sector investment on major irrigation projects in this region. Agriculture is the main occupation of the households. The multiple cropping and intensity of cropping is possible through assured water provided by lift irrigation. The village is surrounded by hills. Sometimes in the kharif season, due to heavy rain, the

Map No 6.1 Block Map of Soro



excess water flows down from the hill side, inundates the field and destroys the crops. This is because the drainage system is not very much operative. Now let us look into the pattern of land distribution in the village.

### 6.1.2 Patterns of Land Distribution:

The distribution of land is quite uneven. This is evident from Table 6.1. The skewed distribution of land is quite discernible as the bottom 32.5 per cent own only 10 per cent of the total land while the top 1.25 per cent owned a meagre share of 8.46 per cent of the total land. A comparative analysis of land distribution in two villages shows that it is more skewed in unirrigated village compared to irrigated one. This is also visible from the Lorenz curve and Gini Co-efficient (see Fig No.6.1). Gini Co-efficient 0.56 (Gini Co-efficient for Unirrigated Village: 0.72).

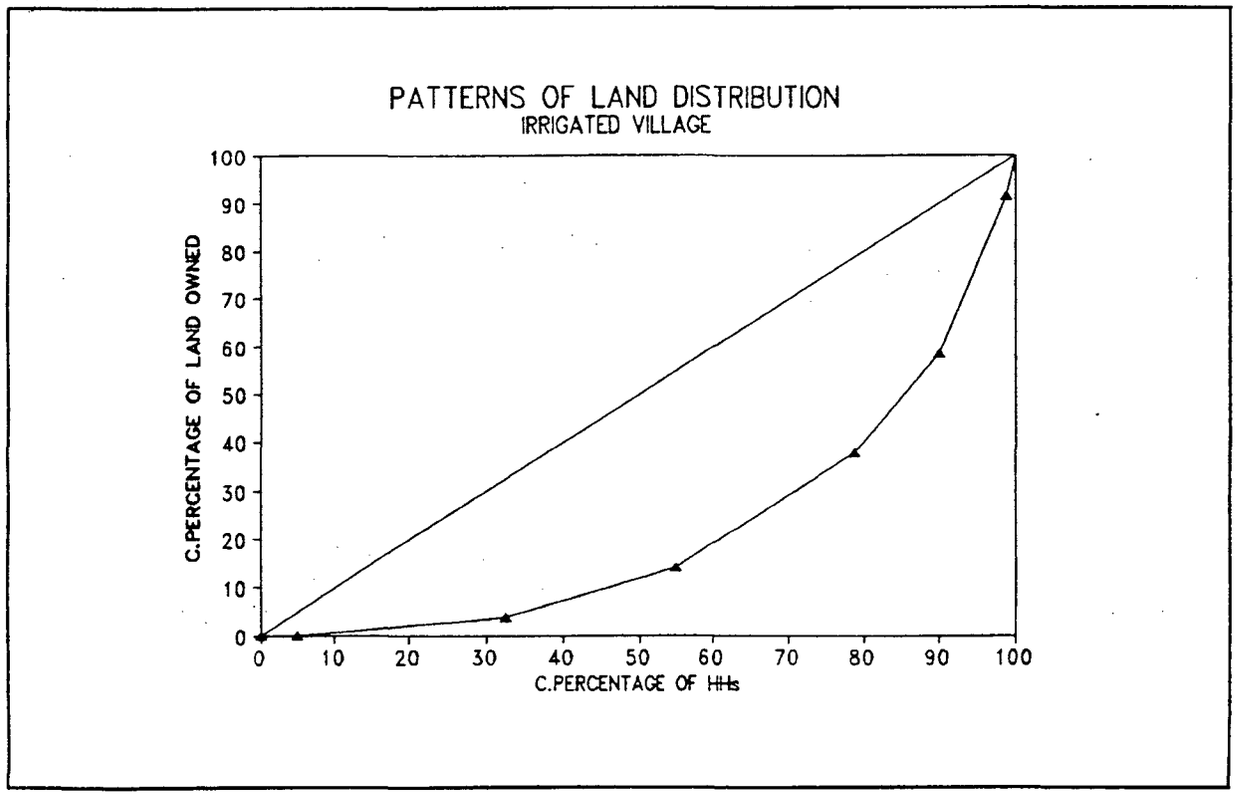
Table 6.1: Size Distribution of Farms and Area According to Size Group of Holding (Irrigated Village)

(Area: Acres)

| Class/Size | No. of H.Hs | % of Total H.Hs | C.P. of H.Hs | land Owned | % of total Land Owned | C.P. of Land |
|---|---|---|---|---|---|---|
| Landless | 4 | 5 | 5 | 0 | 0 | 0 |
| 0.01- 0.99 | 22 | 27.5 | 32.5 | 9.93 | 3.82 | 3.82 |
| 1.00- 2.49 | 18 | 22.5 | 55 | 26.49 | 10.19 | 14.01 |
| 2.50- 4.99 | 19 | 23.75 | 78.75 | 61.62 | 23.7 | 37.7 |
| 5.00- 9.99 | 9 | 11.25 | 90 | 54 | 20.77 | 58.47 |
| 10.00-19.99 | 7 | 8.75 | 98.75 | 86 | 33.07 | 91.54 |
| 20 & above | 1 | 1.25 | 100 | 22 | 8.46 | 100 |
| Total | 80 | 100 | | 260.04 | 100 | |

Note: C.P. denotes Cumulative percentage

Figure 6.1




After observing the uneven distribution of land we analyse the Agrarian relations in the irrigated village.

### 6.1.3 Agrarian Relations:

Unlike the unirrigated village the agrarian relations in the irrigated village has not witnessed much changes. Though there are some households who changed their status yet they did not ascribe the same factors which were emphasized by the farmers in the first village. From our survey out of 40 households considered, only 19 have changed their status. This is evident from Table 6.2. It can be inferred that out of 19 households who changed their status, 12 belong to rentier and owner-rentier group. However, comparing the patterns of change in status in both the villages it is apparent that all the 13 households belonging to

owner cultivators group have not changed their status in the irrigated village. But as we have seen earlier on, in the unirrigated village all the owner cultivators become either rentiers or owner-rentiers.

Table 6.2: Change in Occupational Status

| Year | O.Cultivator to Rentier/ O.Rentier | L.L.Agr.Lab/Cult. to Tenant/O.Tenant | Total |
|---|---|---|---|
| 1985-86 | 0 | 0 | 0 |
| 1986-87 | 2 | 0 | 2 (5.00) |
| 1987-88 | 1 | 0 | 1 (2.63) |
| 1988-89 | 0 | 1 | 1 (2.70) |
| 1989-90 | 1 | 3 | 4 (11.11) |
| 1990-91 | 1 | 0 | 1 (3.12) |
| 1991-92 | 3 | 3 | 6 (16.35) |
| 1992-93 | 4 | 0 | 4 (16.00) |
| Total | 12 | 7 | 19 (47.50) |

Note: 1 Thirteen households taken from owner cultivator group did not change their status in the last seven years.
2 Figures in parentheses represent the percentage of households who changed their occupational status in that particular year.

In the irrigated village, out of fifteen households taken from other categories, only seven have changed their status. However, the occupational status of agricultural labourers, tenants and owner tenants change more often, and especially so from season to season. It also depends on the area under tenancy, their access to land. For instance, an individual might be a landless agricultural labourer in the kharif season but can become a tenant if he can land-in the Rabi season and vice-versa. The change in status also does not seem to be accelerated or decelerated over the decade. Most of them changed their status during the last two years as 10 out of 19 changed during 1991-92 and 1992-93. Hence, it is hard to say that households changed their status permanently.

### 6.1.4 Change in Occupational Status:

To investigate the factors responsible for a change in status several socio-economic factors such as increase in wage rate, costs greater than revenue, increase in supervision costs, scarcity of labourer and assured job in the service sector are considered. The major determinants are the increase in cost of production accompanied by scarcity of labourer that is evident from Table 6.3. Further, assured employment opportunities in the service sector also motivated the farmers to lease out land as around 40 per cent of the total households emphasized on it. It is also observed during the time of the survey that rentiers give primacy of importance to assured jobs in the service sector while the owner-rentier emphasized on wage cost and scarcity of labor as the major factors responsible for a change in occupational status.

Table 6.3: Reasons for Change in Status (Irrigated Village)

| Category/ Reason | Wage Cost | Rise in Costs | Wage Cost and Scarcity of labour | Other cause (Got job) | Total |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Rentier | 1 | 1 | 0 | 4 | 6 |
| | (16.66) | (16.66) | 0 | (66.66) | (100) |
| O.Rentier | 0 | 0 | 5 | 1 | 6 |
| | | | (83.33) | (16.67) | (100) |
| Total | 1 | 1 | 5 | 5 | 12 |
| | (8.33) | (8.33) | (41.67) | (41.67 | (100) |

Nevertheless, none of them stressed on wage rate as the sole criterion to determine agricultural production as emphasized by the farmers in the unirrigated village. Now let us move on to analyse the functioning of land and labour markets which are associated with the existing agrarian relations.

### 6.2.1 Land Market:

In this part we will be dealing with the functioning of land market and try to explore who leases-in from whom. Further, the terms and conditions of land lease will also be examined in this section. Before analyzing the functioning of land market let us look into the area under tenancy.

Table 6.4: Area Under Tenancy in Irrigated village

(Area: Acres)

| Category<br>1 | Land owned<br>2 | Land Leased out<br>3 | 3 as % of 2<br>4 |
|---|---|---|---|
| Rentier (Acres) | 31.62 | 31.62 | 100 |
| O.Rentier (Acres) | 37.5 | 21.8 | 58.13 |
| Total | 69.12 | 53.42 | 77.28 |

From Table 6.4 it can be inferred that out of 69.12 acres of land owned by both the rentier and owner rentier groups, 53.42 (77.28%) acres were leased out. This constitutes 26.58 percent of total land of the village. A comparative study of the land leased out by rentier and owner rentier group reveals that 100 per cent of it is leased out by the former while the latter leased out 58.13 per cent of the total land they owned.

However, if we compare it with the unirrigated village then it is much lower, as around 90 per cent of the total land area was leased out by the rentier and owner rentier categories in the unirrigated village (see Table 3.2).

6.2.2 Patterns of Land Lease:

In a land scarce agrarian economy, where distribution of land is skewed and there is absence of adequate employment opportunities outside the primary sector, the small and marginal farmers are compelled to lease-in land. But it does not necessarily mean that all those want to lease in land are successful in their attempts. The rentiers used to take into consideration certain criteria while leasing out land. As a result, land leased-in by different categories differ largely. This is evident from Table 6.5.

Table 6.5: Details of Land lease (Area: Acres)

| Category | No.of H.Hs | Land owned | land Leased In | Land Leased Out | Area oper-ated | Av.Land Leased in | Avg.ope-rated Area |
|---|---|---|---|---|---|---|---|
| O.cult | 13 | 47.85 | 0 | 0 | 47.85 | 0 | 3.68 |
| L.Tenants | 2 | 0 | 1.75 | 0 | 1.75 | 0.88 | 0.88 |
| O.Tenants | 12 | 17.02 | 27.70 | 0 | 44.72 | 2.31 | 3.73 |
| Total | 28 | 64.87 | 29.45 | 0 | 94.32 | | |

Note: The operated area refers to kharif season (Paddy) only.

Table 6.5 makes a comparative study of the land lease by various groups. The average land leased by the owner tenant group is more than the landless tenants as the former, on average leased in 2.31 acres of land while the latter got 0.88 acre of land.

To examine the rationale behind it we have considered the efficiency of farmers, personal relation and caste. The rentiers argue that the efficiency of farmers is the sole criterion which motivates them to lease-out land to a particular household. This explains the reason for leasing out to owner tenants rather to landless tenants despite their need for land. In this direction

personal relation also plays a role because honesty can be valued more than the efficiency of the tenants.[61] However, caste is not a barrier for a farmer to participate actively in the land market unless that community has an image of being "inefficient". For instance, the SABARA community has such a social image. Hence, they have a less bargaining power in the land lease market.

However, a comparison of preferences for particular groups in unirrigated with those in the irrigated village shows that the former prefer the landless tenants whereas owner cultivators are given priority by the latter (Refer Table 3.3). This is mainly on account of their efficiency which they have proved by producing the maximum food grains.

The change in tenants in this village is not wide spread unlike the unirrigated village which can be inferred from Table 6.6.

Table 6.6: Distribution of Change in Tenants

| Category | Years | | | | |
|---|---|---|---|---|---|
| | one | 2 to 3 | 5 and Above | No change | Total |
| Rentier | 4 | 0 | 1 | 1 | 6 |
| O.Rentier | 0 | 2 | 0 | 4 | 6 |
| Total | 4 (33.3) | 2 (16.67) | 1 (8.33) | 5 (41.67) | 12 (100) |

Note: Figure in the parenthesis are in percentages

[61] For instance, a farmer might be efficient which can be proved by producing the maximum amount but if he is not trustworthy then there is fair chance of loosing a part of total produce.

From Table 6.6 it is clear that out of 12 households in the rentier and owner rentier groups, four have changed in one year while two of them changed in two to three years and only one individual changed in five years. Nevertheless, the most interesting feature that emerged is that five (42 per cent) households did not change their tenants yet. This shows that most of them either change in one year or do not change at all. As mentioned in Chapter 3, in the unirrigated village in contrast rentiers/owner rentiers try to change their tenants within two to three years to avoid the law of Adverse Possession.

Section 3

6.3.1 Labor Market:

In the labor market we are dealing with the trends and patterns of employment. The employment during a year can be divided into employment in the village and days of outmigration to various industries.

A comparative study of employment of farmers during 1993-94 reveals that they are employed only in the village. Except an individual from owner cultivator group others did not outmigrate for jobs. However, on an average days of employment of households in owner rentier (around 10 months) is more than that of the other categories. And it is the least for land less agricultural groups (3 months). This is shown in Table 6.7.

Table 6.7: Average Days of Employment of Adult Males in Irrigated Village

| | Emp.Village | Outmigration |
|---|---|---|
| Tenant | 210 | 0 |
| O. Tenant | 178 | 0 |
| O.Cultivator | 231 | 30 |
| L.Agl.Lab | 120 | 0 |
| O.Rentier | 308 | 0 |

Note: Only one individual outmigrated from owner cultivator category for one month.
Emp. Village denotes Days of employment in the village which comprises of employment in the agricultural sector and non-farm activities in the village.

The employment in the village is primarily determined by the patterns of land distribution, operational holding of the households, other employment opportunities available, type of crops produced and the intensity of cropping. Although the operational holding of the households (in kharif season) is very low in comparison to the unirrigated village, presence of other alternative employment opportunities coupled with a rise in intensity of cropping increases the days of employment in the village.

It is an accepted fact that scarcity of labor is one of the major factors responsible for leasing out land which was also observed during the period of survey as there is only one household whose main occupation is to work as agricultural labourer. The mandays of agricultural labourer is very low-120 days in a year. This is shown in Table 6.8. Thus it follows that there is no scarcity of labourers in the village; rather their willingness to involve in the agricultural activities is very low. Ofcourse, the operational holding of the households is very low (kharif season) which reduces

the demand for agricultural labourer considerably but the intensity of cropping can increase the man days to a great extent.

However, the following arguments can be taken into consideration to justify the scarcity of labour in the survey area. First, there is a particular community (SABARA) whose main occupation is to beg or sell cosmetics in the village. They are not inclined to work in the agricultural sector. Second, availability of other employment opportunities which fetch more income, attracts the youth and motivates them to stick to that occupation. For instance, there are some individuals who are reluctant to work in the agricultural field and prefer to work in a stone crusher where they can earn more than in the agricultural activities. That to, from time immemorial people generally stick to their main occupation which is related to their caste, but at present they prefer that which gives more income without considering their castes. For example, availability of stone crusher encourages them to make idols and sell at a high price. Some of them try to become carpenters which raises their income level. Hence, they hesitate to work in the agricultural sector.

Infact, it is observed that there is a tendency among the workers not to participate in the agricultural operation, that is not to go to the field. It could be primarily due to low wage rate in agricultural operations which is around Rs.20.[62] Also,

[62] Some workers argue by loading and unloading trucks we earn more and work less. So, why will we work in the agricultural field and earn only Rs.20 per day.

availability of other employment opportunities and low risk, in other occupations motivates them to stick to other occupations.

However, to reduce their dependence on agricultural labourers, farmers try to exchange labor power among themselves and employ family labor. Further, as the operational holdings of different categories of households are small (Refer Table 6.5), there is no need to rely on others for a long time for agricultural operations.

Now let us move on to analyse the days of employment of various categories of households in both irrigated and unirrigated villages.

Table 6.8: Days of Employment in Two Villages

(On Average)

| Category | Employment In Unirrigated Village | Employment In Irrigated Village |
|---|---|---|
| L. Tenants | 195 | 210 |
| O.Tenants | 135 | 178 |
| O.Cult. | 150* | 231 |
| L.Agl.lab | 161 | 120 |
| O.Rentier | 120 | 308 |

Note: Employment of households during the year 1993-94 includes both days of employment in the village and days of off-season peasant migration.

* Only three households outmigrated for 8 months in O.Cultivator group (out of 13 H.Hs.)

A comparative study of mandays of different categories of households in both the villages shows wide differentials in the days of employment (Refer Table 6.8). For instance, in the irrigated village, except for agricultural labourers others got employment more than other categories in unirrigated village. In other words, in the unirrigated village despite the fact that most

of them outmigrated in the Rabi Season, the days of employment during the year 1993-94 is lower than that in the irrigated village even though the operational holding of the households (in Kharif season) is very low in comparison to the unirrigated village. Besides, decomposing the days of employment in a year (in unirrigated village) into days of employment in the village and outmigration it is discernible that the former is lower than the latter for all the categories except the owner-rentier. This is evident from Table 6.9. If we compare it with the irrigated village, it becomes clear that there is no outmigration as except an individual from owner-cultivator category others did not outmigrate.

Table 6.9: Patterns of Employment in Two Villages

(On Average)

| Category | Unirrigated | | Irrigated | |
|---|---|---|---|---|
| | Village | Migration | Village | Migration |
| L. Tenants | 86 | 110 | 210 | |
| O.Tenants | 84 | 140 | 178 | |
| O.Cult. | 158 | 240 | 231 | 30 |
| L.Agl.lab | 105 | 150 | 120 | |
| O.Rentier | 102 | 90 | 308 | |

Note: Days of employment in the village and days of outmigration can not be added to get days of employment during the year in unirrigated village.

This suggests that irrigation has a vital role to play in the process of employment. Now let us move on to examine the patterns of outmigration and the days of non-farm employment.

### 6.3.2 Outmigration:

The peasant outmigration primarily depends on the availability of irrigation and other employment opportunities in the rural economy.

In an irrigated agrarian economy having more or less even distribution of land coupled with wide spread multiple cropping, absence of peasant outmigration should be the normal situation. Further, availability of other employment opportunities such as construction works, works in stone crusher etc. limit outmigration largely. Out of 28 households taken for consideration (excluding rentier and owner rentier) only one individual had migrated.

Table 6.10: Features of Peasant Outmigration (Irrigated Village)

| Category | Days of Out-migration | H.Hs Mig-rated | Family members Migrated | Migrant Members (Average) | Average Earning (in Rs) |
|---|---|---|---|---|---|
| L.L. Tenants | 0 | 0 | 0 | 0 | 0 |
| O. Tenants | 0 | 0 | 0 | 0 | 0 |
| O. cult. | 30 | 1 | 1 | 1 | 800 |
| L.L Agl.Lab | 0 | 0 | 0 | 0 | 0 |
| Total | 30 | 1 | 1 | 1 | 800 |

Note: L.L.Tenants: Landless Tenants, O.Tenants: Owner Tenants O.Cult.: Owner Cultivator L.L.Agl.Lab: Landless Agricultural Labor

A comparison of days of outmigration and members who outmigarted from various categories suggests that it is low in the irrigated village with respect to unirrigated one. For instance, in the unirrigated village out of 12 households from landless tenants group 11 have outmigrated and 5 of them belong to the Schedule Caste community. Further, on average the members migrated from tenant and owner tenant categories are more (more than 2 for tenants and around 2 for owner tenants) than that of the irrigated village. Similar is the case of income earned. Only one individual earned Rs.800 (Refer Table 6.10) whereas in the unirrigated village outmigrants earned around Rs.1500 per month depending on their capacity to work and type of work done etc.

Considering the saving rate of individuals it can be pointed out that one individual from owner cultivator group earned Rs.800 and saved the whole amount which is shown in Table 6.11. This was possible as he was taking food at his house.

Table 6.11: Savings of Migrants Income in the Irrigated Village (In Rupees)

| Category | Total Earning | Average Earning | Net Saving | (3) as a percent of (1) | Average Net Saving |
|---|---|---|---|---|---|
| L. Tenants | 0 | 0 | 0 | 0 | 0 |
| O. Tenants | 0 | 0 | 0 | 0 | 0 |
| O. cult. | 800 | 800 | 800 | 100 | 800 |
| L. Agl.Lab. | 0 | 0 | 0 | 0 | 0 |

Note: * Total Earning of the outmigrants of each family

However, irrigation alone does not necessarily discourage outmigration if intensity of cropping, multiple cropping does not increase. Change in cropping pattern and production of commercial crops is directly associated with the credit facilities available in the economy. In the next section we will look into the functioning of credit market.

## Section 4

### 6.4.1 Credit Market:

Credit plays a significant role in the production of agricultural output. In the irrigated village irrigation alone can not motivate the farmers to adopt High Yielding Variety Seeds and to go for double cropping unless credit facility is readily available in proper time through formal credit institutions. Persistence of informal credit institutions with high interest rate has an adverse

impact on the production of output. However, it is observed that dependence on credit declined. This is evident from Table 6.12.

Table 6.12: Patterns and Purpose of Credit in Irrigated Village (In Rupees)

| Category | Total H.Hs | H.Hs borrow Loan | Amount | Purpose |
|---|---|---|---|---|
| Tenant | 2 | 0 | 0 | |
| O.Tenant | 12 | 2 | 700 | Cultivation |
| O.Cultiva | 13 | 3 | 6500 | " |
| L.Agr.lab | 1 | 0 | 0 | |
| Total | 28 | 5 | 7200 | |

From Table 6.12 it can be inferred that out of 28 households excluding rentier and owner renteir) considered only five have borrowed loan during 1993-94. Further, the purpose of the loan is to meet cultivation expenses only. It may be noted that the respondents disclose the amount of loan only when the amount they borrowed is sizeable and that too when they borrowed it from the formal institutions (Commercial Bank).

Infact, a looking at the source of credit makes it clear that there is a shift in dependency from informal credit society to organized credit institution. This is distinct from Table 6.13.

Table 6.13: Sourcewise Credit by Various Groups in the Irrigated Village

(Rupees)

| Category | Money Lender | Co-operative Society | Commercial Bank | Relative & others | Total |
|---|---|---|---|---|---|
| Tenant | 0 | 0 | 0 | 0 | 0 |
| O.Tenant | 700 | 0 | 0 | 0 | 700 |
| O.Cultiva | 0 | 0 | 6500 | 0 | 6500 |
| L.Agr.lab | 0 | 0 | 0 | 0 | 0 |
| Total | 700 (9.72) | 0 | 6500 (90.28) | 0 0 | 7200 (100) |

a least amount of total credit is borrowed from the organised sectors (10 per cent), especially form commercial Bank while the remaining obtained from the money lender (90 per cent). Further, not a single individual borrowed from landlord or co-operative society. However, from the tenant categories no one borrowed loans during the last year. It could be due to very small operational holding and lack of access to loan from commercial Banks and Co-operative society. The problems faced by the farmers from the unirrigated village to get loan from Bank and Co-operative society is discussed in the Chapter 4 for the unirrigated village. Such problem are equally applicable to the irrigated village.

Infact, a comparative analysis of the percentage share of credit to total credit from both organised and unorganised source reveals that it is higher from the formal credit institutions in the irrigated village. This is evident from Table 6.14.

Table 6.14: Credit from Organised and Unorganised Source in both the Villages

| Category | Unirrigated | | Irrigated | |
|---|---|---|---|---|
| | Organised | Unorganised | Organised | Unorganised |
| Tenant | - | 5000 | - | - |
| O.Tenant | 2300 | 6200 | - | 700 |
| O.Cult. | - | 1050 | 6500 | - |
| L.Agr.Lab. | - | 300 | - | - |
| Total | 2300 (15.49) | 12550 (84.51) | 6500 (90.28) | 700 (9.72) |

From Table 6.11 it can be inferred that around 90 per cent of the total credit in the irrigated village came from the formal credit institutions and the remaining from unorganised credit institutions. In contrast, in the unirrigated village around 85 per cent of the total loans borrowed from unorganised credit institutions. Thus, it implies that the dependency on informal credit institutions is not very high in the irrigated village.

**Conclusion:**

To sum up, there was no significant change in agrarian relations in the irrigated. A comparative analysis of the factors which influenced some of the landowners to stop cultivation in the unirrigated village with those in the irrigated one reveals that in the case of former, it was the increase in cost of production (especially a fast rise in wage rate, price of bullocks and maintenance cost) along with rise in supervision and transaction costs which are primarily responsible for it, while in case of latter scarcity of labourers and employment of family labour in the service sector, are the main factors which compel them to lease-out.

Though there is a skewed distribution of land in the irrigated village yet it is not more uneven in comparison to the unirrigated village. For leasing out land the land owners take into account efficiency of the farmers as the main criterion. This is evident from the fact that despite the landless tenants immense desire to lease-in land (who are also preferred by the rentier in the unirrigated village), their inefficiency ruled out active participation in the land lease market. Infact, the rentiers/owner-rentiers do not change their tenants more often unlike in the unirrigated village to avoid the Law of Adverse Possession.

In the labour market it is discernible that introduction of irrigation increased the days of employment in the village considerably and hence, reduced outmigration to a great extent. Presence of assured water also utilised the fixed factors throughout the year. It also introduced High Yielding Variety seeds and intensified multiple cropping. This increased the days of employment and income in the agricultural sector.

In the credit market it is observed that dependence on informal credit institutions in the irrigated village is very low. But in the unirrigated village farmers generally depend on the informal credit organizations. Thus, it follows that other things remaining constant, irrigation alone plays a major role in determining the agricultural production and economic conditions of the farmers. Needless to say, the socio-economic condition of the households in the irrigated village is comparatively better than that of unirrigated one.

# Chapter 7

## Summary and Conclusions

The objective of the study is to analyse the changing agrarian relations in a village in Coastal Orissa. In this connection the role of land, labour, credit and output markets has been discussed. Further, the impact of agrarian relations on the development of the rural economy has also been investigated. Finally, a comparison has been made of the role of institutional and technical factors in changing agrarian scenarios both in the irrigated and unirrgated villages.

From about 1986-87 onwards in the village under study there has been a shift from owner-cultivation to tenant-cultivation. To examine the factors underlying the change in status from cultivator to rentier and landless agricultural labourer to tenant, several socio-economic factors and agro-climatic conditions have been considered. The patterns of land distribution, caste inhibitions, socio-economic conditions of various groups of households, absence of assured water and rising cost of production are considered to be of importance. The distribution of land as a whole and among different communities in particular is quite uneven. For instance, the Brahmins, who do not actively participate in the process of cultivation owned a major chunk of the whole land while the Schedule Castes, the actual tillers of the soil own the least extent.

However, the emergence of agrarian relations has led to the evolution of land lease market. Among the various contractual arrangements; the tenancy, especially sharecropping is preferred by

both the landowners and tenants. In the present scenario, the wage contract is assigned less importance and fixed tenancy is not preferred from a long run perspective. This is primarily due to use of more dosage of fertiliser under fixed rent which deteriorates the quality of the land over time. Besides, the sharecontract leads to the utilisation of the non-marketable resources (family labour and use of draught animal) which reduces the cost of production and increases the output. The participation of both the agents under this arrangement also allocates the resources efficiently. Moreover, sharecropping assures a judicious mix of investment given cost constraint of the agents to ensure a steady stream of output over time.

From the patterns of land lease it is clear that landlords keep changing their tenants more often to avoid the transfer of their proprietary rights to the tenants. The former take into account efficiency of the tenants and personal relation with them for leasing out their lands. This is because maximisation of rent (share amount of the rentiers) subject to the credit constraint is the sole criterion of the rentiers which can be fulfilled by the efficient tenants. However, caste is no longer a barrier in the participation of the farmers in the land-lease market. This is evident from the fact that the rentiers now prefer to lease out their lands to the farmers belonging to Schedule Caste Community whom they consider to be the most efficient. The tenants also have enough freedom to choose the landlords.

However, absence of irrigation precludes cultivation in the Rabi Season. The scarcity of water is primarily due to the saline

intrusion. This can be ascribed to the excessive extraction of ground water which rules out the possibility of providing water through lift irrigation. It is mainly on account of the location of the village near the Bay if Bengal coast. This compelled the farmers to outmigrate for three to four months, especially to Brick making industry in West Bengal. Their earnings are determined by various factors such as the type of work performed (related to their caste), days of outmigration and ability to work and number of family members who outmigrated. Around sixty to sixty five per cent of their total earnings are saved. These savings constitute forty two percent of their gross earnings in a year. This acts as a cushioning for them to lease-in land from the rentiers.

Absence of irrigation also rules out adoption of High Yielding Variety seeds and introduction of multiple cropping. This reduces the days of employment of the households considerably as majority of them get employment only for about five months in a year.

From the functioning of the credit market it is noticed that the dependence on informal credit institutions still persists and it is primarily due to the rise in transaction costs and the political clout required in getting loan from the formal credit institutions. Moreover, the delay of receiving loans from formal credit institutions combined with the uncertainty and risk associated necessitates the tenant farmers to rely for their cred needs on landlords and money lenders.

The absence of irrigation also underutilised the fixed factors, reducing the productivity of factors of production and therefore,

the profit margin. Further, the fluctuations in price of paddy reduces the profit of the small and marginal farmers considerably. The decline in profit can also be attributed to the lack of organisation among the farmers. Adding to this, the small operational holding of the farmers limit their waiting capacity to take advantage of the price rise in the lean season. Also, the prevailing market price of paddy tends to be lower than the procurement prices. This induces the mill-owners to purchase paddy from the market at a lower price and increase the amount of profit.

However, persistence of low market price could be ascribed to lack of aggregate effective demand in the market. The decline in the demand for food grains is due to the off season migration of the young peasants for a few months. Besides, a rise in area under tenancy and the prevalence of wide spread sharecropping reduces the demand for paddy by the farmer/tenants.

As for cost of production, it is noticed that it went up at a faster rate during the last decade. In the cost composition wage payment, price and maintenance cost of bullocks are important. A rise in the prices of these items compelled the owner cultivators to stop self cultivation as it is no longer found profitable.

In contrast, the tenants and owner tenants try to reduce the cost of production by putting in more efforts, employing family labour and thus, utilising their non-marketable resources. Moreover, absence of alternative employment opportunities in the Kharif season compel them to lease in land despite a rise in cost of production.

Finally, to investigate the role of technological factors especially role of irrigation, an irrigated village has also been surveyed. There has been no change in agrarian relations in the village even though distribution of land is found to be skewed. There are some rentiers and owner-rentiers who have decided to stop cultivation is due to the employment of family members in non-agricultural activities.

From the patterns of land lease it is observed that the rentiers assign importance to the efficiency of the tenant-farmers. However, the interesting feature that emerges is the absence of frequent change of tenants in the irrigated village. Introduction of irrigation also reduced outmigration from the village as they are able to get employment within the village. This is primarily due to the adoption of short duration High Yielding Variety Seeds and rise in intensity of cropping.

Considering the sources of credit it is observed that dependence on formal credit institution is comparatively higher in the irrigated village as compared to the unirrigated village. Needless to say, the households in the irrigated village are found to be socio-economically better off.

To strengthen the agrarian economy of the village a few measures have to be taken. First of all, the village community and the Government should together make an effort to facilitate the introduction of canal irrigation. Secondly, the Government should see that the Procurement prices offered to the farmers are reasonable and remunerative. Thirdly, the village community and

the authorities together should make efforts to remove the irritants in the disbursal of credit from the formal credit institutions.

The present study focused its attention on the existing agrarian relations in a village from the coastal belt of Orissa. The inferences from the study may not easily be generalised for the whole of the State. But the analysis should be relevant to a larger portion of the Coastal region or sub-regions within the State with similar agrarian conditions. The policy implications of the study do have relevance to backward agrarian economies.

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